BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY COMMISSION

AT NEW DELHI

PETITION NO._____/MP/2024

For True-up in Petition No. 60/MP/2022

IN THE MATTER OF : Petition Under Section 62 and 79 (1) (a) of the Electricity Act, 2003 read with Chapter-III of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 and Chapter-3, Regulation-13 (1a) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2019 for revision of input price of coal supplied from Pakri Barwadih mine for the period from date of commercial operation i.e. 01.04.2019 to 31.03.2024 after the truing up exercise.

AND IN THE MATTER OF :

NTPC Limited ....Petitioner

Versus

Bihar State Power Holding Company Ltd (BSPHCL) & Ors. .....Respondents

INDEX

Sl. No.	Description	Page No.
1	Index	1- 2
2	Memo of Parties	3-8
3	Summary of Issues	9-10
4	Petition for revision of input price of coal supplied from Pakri Barwadih mine for the period from 01.04.2019 to 31.03.2024	11-25
5	Affidavit verifying petition	26-27
6	**Appendix-I** - Tariff Filing Forms - Input price for 2019-24 period.	28-168
7	**Annexure A** (Colly – Copy of Pakri Barwadih Investment Approval)	169-181
8	**Annexure B** – Copy of Pakri Barwadih RCE Board Approval 29.04.2024	182-183

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Sl. No.	Description	Page No.
9	**Annexure C** - Pakri RCE & Investment Approval Comparison	184
10	**Annexure D** – Copy of Pakri Barwadih Mining Plan (First Revision), January,2016	185-684
11	**Annexure E** – Copy of Pakri Barwadih Mining Plan (Second Revision), September,2023	685-788
12	**Annexure F** - Auditor certified year wise O&M expenses claimed for the tariff period from 01.04.20219 to 31.03.2024	789-791
13	**Annexure G** – Auditor certified year wise statutory charges claimed for the tariff period from 01.04.20219 to 31.03.2024	792
14	**Annexure H** - Auditor certified year wise Add Cap expenditure claimed for the tariff period from 01.04.20219 to 31.03.2024	793-804
15	**Annexure I** – Auditor certified year wise Mining Charges claimed for the tariff period from 01.04.20219 to 31.03.2024	805-817
16	**Annexure J** – Auditor certified year wise surface transportation charges claimed for the tariff period from 01.04.2019 to 31.03.2024	818
17	**Annexure K** - Auditor certified year wise mine closure expenses claimed for the tariff period from 01.04.2019 to 31.03.2024.	819
18	**Annexure L** – Copy of relevant documents in respect of declaration of grade of coal for the period from FY 2019-20 to 2023-24	820-824
19	Audited Reconciliation of capitalization claimed vis-à-vis books of accounts **(Form-E)**	825
20	**Balance Sheet**	826-1309
21	**Form - I**	1310-1312

Filed By

(Petitioner)

Place: Noida

Date: 27.11.2024

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY COMMISSION

AT NEW DELHI

PETITION NO_____/MP/2024

IN THE MATTER OF : Petition Under Section 62 and 79 (1) (a) of the Electricity Act, 2003 read with Chapter-III of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 and Chapter-3, Regulation-13 (1a) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2019 for revision of input price of coal supplied from Pakri Barwadih mine for the period from date of commercial operation i.e. 01.04.2019 to 31.03.2024 after the truing up exercise.

AND IN THE MATTER OF :

NTPC Limited ....Petitioner

Versus

Bihar State Power Holding Company Ltd (BSPHCL) & Ors. ....Respondents

MEMO of Parties

AND IN THE MATTER OF :

NTPC Ltd., Through its authorized Representative,
NTPC Bhawan, Core-7, Scope Complex, 7, Institutional Area, Lodhi Road, New Delhi-110 003 .....Petitioner

Versus

Respondents

1. Bihar State Power Holding Company Ltd (BSPHCL), Vidyut Bhawan, Bailey Road, Patna - 800001.
2. North Bihar Power Distribution Company Ltd., Vidyut Bhawan, Bailey Road, Patna-800001

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

3. South Bihar Power Distribution Company Ltd., Vidyut Bhawan, Bailey Road, Patna 800001

4. Jharkhand Bijlee Vitaran Nigam Ltd., Engineering Building, HEC Township, Dhurwa, Ranchi – 834004

5. GRIDCO Ltd., Janpath, Bhubaneshwar – 751022

6. West Bengal State Electricity Distribution Company Ltd., Vidyut Bhawan, Bidhannagar, Block DJ, Sector-II, Salt Lake City, Kolkata – 700091

7. Power Department, Govt. of Sikkim, Kazi Road, Gangtok, Sikkim – 737101

8. Assam Power Distribution Company Ltd Bijulee Bhawan, Paltan Bazar, Guwahati – 782001

9. Meghalaya Energy Corporation Ltd Short Round Road, Shillong – 793001

10. Department of Power Government of Arunachal Pradesh, System operation & Power System Communication, SLDC Itanagar, Itanagar-791111

11. Power and Electricity Department Govt. of Mizoram Aizawal, 796001

12. Manipur State Power Distribution Company Ltd. Khwai Bazar, Keishampat, Imphal 795001

13. Department of Power Govt of Nagaland, Electricity House, Below A.G Office, Kohima-797001 Nagaland

पवन देव जमुआ/PAWAN DEV JAMUA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
NTPC LIMITED
201301 (U.P.)

14. Tripura State Electricity Corporation Limited
Bidyut Bhawan, North Banamalipur
Agartala – 700001
Tripura

15. Uttar Pradesh Power Corporation Ltd.
Shakti Bhawan, 14, Ashok Marg,
Lucknow, UP- 226001.

16. Rajasthan Urja Vikas Nigam Limited (RUVNL) Vidyut Bhawan, Janpath,
Jaipur – 302005 (Rajasthan)
(On Behalf of Discoms of Rajasthan)

17. Tata Power Delhi Distribution Limited,
NDPL House, Hudson Lines
Kingsway Camp
Delhi-110009

18. BSES Rajdhani Power Limited,
BSES Bhawan, 2nd Floor, B-Block,
Behind Nehru Place Bus Terminal,
Nehru Place, New Delhi – 110019

19. BSES Yamuna Power Limited,
2nd Floor, B Block, Shakti Kiran Building,
Near Karkardooma Court,
New Delhi – 110092

20. Haryana Power Purchase Centre,
Shakti Bhawan, Energy Exchange,
Room No. 446, Top Floor, Sector-6,
Panchkula- 134109

21. Punjab State Power Corporation Limited,
The Mall, Patiala-147001

22. Himachal Pradesh State Electricity Board,
Vidyut Bhawan,
Kumar House Complex Building II,
Shimla – 171004

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

23. Jammu And Kashmir State Power Development Corporation Limited (JKSPDC Ltd)
Opposite J&K High Court, Srinagar,
Jammu and Kashmir -190009.

24. Chandigarh Electricity Department (CED),
Opp. Divn. No. 2 Industrial Area Ph-1 BBMB Complex, Chandigarh - 160002

25. Uttarakhand Power Corporation Limited,
Urja Bhawan, Kanwali Road,
Near BalliWalaChowk, Dehradun -248001

26. Madhya Pradesh Power Management Company Limited (MPPMCL)
Block No-11, Ground floor,
Shakti Bhawan, Vidhyut Nagar, Rampur,
Jabalpur-482008
Madhya Pradesh

27. Maharashtra State Electricity Distribution Company Limited (MSEDCL)
Prakashgad, 4th Floor, Bandra (East),
Mumbai – 400051

28. Gujarat Urja Vikas Nigam limited (GUVNL)
Vidhyut Bhawan, Race Course,
Vadodara – 390007

29. Chhattisgarh State Power Distribution Company Limited (CSPDCL)
P.O Sunder Nagar, Dangania,
Raipur-492013,
Chhattisgarh

30. Goa Electricity Department (ED), Govt. of Goa
Aquem Alto, Margao, Goa – 403601

31. DNHDDPDCL
1st & 2nd Floor, Vidyut Bhavan,
Silvassa, Dadar Nagar Haveli – 396230

32. AP Eastern Power Distribution Company Ltd.
P&T Colony, Seethammadhara,
Vishakapatnam, Andhra Pradesh – 530013

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
-201301 (U.P.)

33. Southern Power Distribution Company of Andhra Pradesh Ltd (APSPDCL)
APPCC, Vidyut Soudha, Gunadala,
Vijayawada, ANDHRA PRADESH – 520004

34. Telangana State Northern Power Distribution Company Ltd.
H. No 2-5-31/2, Vidyut Bhavan, Nakkalagutta,
Hanamkonda, Warangal-506001

35. Telangana State Southern Power Distribution Company Ltd.
Mint Compound, Hyderabad-500063

36. Electricity Department,
Govt. of Puducherry,
137, NETAJI SUBASH CHANDRA BOSE SALAI,
Puducherry - 605001

37. Tamil Nadu Generation and Distribution Corporation Ltd.
NPKRR
Maaligai, 144, Anna Salai, Chennai-600002

38. Kerala State Electricity Board
Vaidyuthi Bhavanam,
Pattom, Trivandrum – 695004, Kerala

39. Power Company of Karnataka Limited (PCKL)
KPTCL Building, Kaveri Bhavan
Bangalore-506009 Karnataka

40. Bangalore Electricity Supply Company
K.R. Circle, Bangalore-506001 Karnataka

41. Mangalore Electricity Supply Company Limited
(MESCOM, MESCOM BHAVANA, KAVOOR
CROSS ROAD, BEJAI, Mangalore, KARNATAKA -
575004

42. Chamundeshwari Electricity Supply Corporation
No.29, Corporate Office CESC Mysore, Vijayanagar
2nd Stage, Hinkal, Mysuru-570 017

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
Noida-201301 (U.P.)

43. Gulbarga Electricity Supply Corporation Station Road, Gulbarga, Karnataka-585102

44. Hubli Electricity Supply Company Navanagar, PB Road, Hubli, Karnataka- 580025

Filed By

(Petitioner)

Place: Noida

Date: 27.11.2024

पवन देव जमटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY COMMISSION

AT NEW DELHI

PETITION NO_____/MP/2024

IN THE MATTER OF : Petition Under Section 62 and 79 (1) (a) of the Electricity Act, 2003 read with Chapter-III of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 and Chapter-3, Regulation-13 (1a) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2019 for revision of input price of coal supplied from Pakri Barwadih mine for the period from date of commercial operation i.e. 01.04.2019 to 31.03.2024 after the truing up exercise.

AND IN THE MATTER OF :

NTPC Limited .....Petitioner

Versus

Bihar State Power Holding Company Ltd (BSPHCL) & Ors. .....Respondents

MOST RESPECTFULLY SHOWETH:

SUMMARY OF THE PETITION: 2019-24 Truing-up Petition for revision of input price of coal supplied from Pakri Barwadih mine.

(In compliance with CERC notice dated 07.06.2024)

The major highlights of the truing-up Petition for revision of input price of coal supplied from Pakri Barwadih mine for the period from date of commercial operation i.e. 01.04.2019 to 31.03.2024 are as follows:

1. The present petition is being filed under Section 62 and 79 (1) (a) of the Electricity Act, 2003 read with Chapter-V of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 & 2023 and Chapter-3, Regulation-13 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2021 (Second Amendment) for revision of tariff of Pakri Barwadih coal mine for the period from 01.04.2019

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एनटीपीसी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

(COD of Pakri Barwadih) to 31.03.2024 after the truing up exercise based on actual expenditures as on 31.03.2024.

2. Pakri Barwadih is an integrated mine (basket type) located at District Hazaribagh, Jharkhand. Pakri Barwadih started commercial operation (COD) on 01.04.2019. In terms of the allotment order, coal supplied from Pakri Barwadih is being used by NTPC Generating stations. Power from these NTPC generating stations is being supplied to various discoms (as per MoP allocation and respective PPAs).

3. The input price of Pakri Barwadih for the period from 01.04.2019 (COD) to 31.03.2024 is yet to be determined by the Hon'ble Commission in Petition No. 60/MP/2022 (The petition is under consideration of the Hon'ble Commission). The capital cost claimed for determination of input price in petition no 60/MP/2022 included the projected additional capital expenditure up to 31.03.2024.

4. The input price of Pakri Barwadih for the tariff period 2019-24 (i.e. COD 01.04.2019 to 31.03.2024) after the truing up exercise based on actual expenditures as on 31.03.2024 is annexed with the petition as per provisions of Regulation 13 of CERC Tariff Regulations, 2019 and subsequent second amendment issued in 2021.

5. The actual Additional Capital Expenditure on cash basis for the FY 2019-24 (i.e. COD 01.04.2019 to 31.03.2024) is Rs 3,407.03 Cr. The same has been depicted in Form 9 of the Appendix-I along with applicable regulations and justification for the claims. It is humbly requested to approve the actual Additional Capital expenditure during the period of 2019-24 (i.e. COD 01.04.2019 to 31.03.2024).

6. The statutory charges for the period 2019-24 as levied by the state government/ central government is submitted in Form-16 of Appendix-I. The Hon'ble Commission may please allow the same under Regulation 36(A)(2).

In the light of above submission and as per the Petition being filed by the Petitioner for revision of input price of Pakri Barwadih Coal Mine project, the Hon'ble Commission may please approve revised tariff for the tariff period 2019-24 as per provision of Regulation 13 of Tariff Regulations 2019 and its subsequent second amendment issued in 2021.

पवन देव जमुता/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एनटीपीसी लिमिटेड/NTPC LIMITED
नोएडा-201301 (U.P.)

BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY COMMISSION

AT NEW DELHI

PETITION NO_____/MP/2024

IN THE MATTER OF : Petition Under Section 62 and 79 (1) (a) of the Electricity Act, 2003 read with Chapter-III of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 and Chapter-3, Regulation-13 (1a) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2019 for revision of input price of coal supplied from Pakri Barwadih mine for the period from date of commercial operation i.e. 01.04.2019 to 31.03.2024 after the truing up exercise.

AND IN THE MATTER OF :

NTPC Limited ....Petitioner

Versus

Bihar State Power Holding Company Ltd (BSPHCL) & Ors. ....Respondents

MOST RESPECTFULLY SHOWETH:

The Petitioner humbly states that:

1) The Petitioner herein NTPC Ltd. (hereinafter referred to as '**Petitioner**' or '**NTPC**'), is a company incorporated under provisions of the Company Act, 1956 and a Government Company as defined under Section 2(45) of the Companies Act, 2013. Further, NTPC is a 'Generating Company' as defined under Section 2(28) of the Electricity Act, 2003.

2) The Petitioner is having integrated mines (both captive mines and basket mines) in different regions and places in the country. Pakri Barwadih Coal Mine Project is one such integrated mine project located in the State of Jharkhand.

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
Ghaziabad-201301 (U.P.)

3) It is pertinent to mention that Pakri Barwadih mine is a basket mine comprising of West & East Block and North-West Block allocated to Petitioner under the Coal Mines (Nationalization) Act, 1973 for use in any of its generating stations.

4) Section 62 of Electricity Act, 2003 provides for determination of tariff by the Appropriate Commission for supply of electricity by a generating company. The Hon'ble Commission, under Section 79(1)(a) of Electricity Act, 2003, is vested with the jurisdiction to regulate the tariff of the Generating Companies owned or controlled by the Central Government.

5) The Hon'ble Commission has notified the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2019 (hereinafter 'Tariff Regulations 2019) and Central Electricity Regulatory Commission (Terms & Conditions of Tariff) (Second Amendment) Regulations, 2021 which came into force from 1.4.2019 and 13.09.2021 respectively and specify the terms & conditions and methodology of tariff determination for the period from 01.04.2019 to 31.03.2024 under Section 62 & 79 of the Electricity Act, 2003.

6) Regulation 9 (4) of CERC (Terms & Conditions of Tariff) Regulations 2019 provides as under:

"9. <u>Application for determination of tariff:</u>

.....

"(4) Where the generating company has the arrangement for supply of coal or lignite from an integrated mine(s) to one or more of its generating stations, the generating company shall file a petition for determination of the input price for determining the energy charge along with the tariff petitions for one or more generating stations in accordance with the provision of Chapter 9 of these regulations.

Provided that a generating company with integrated mine(s) shall file a petition for determination of input price of coal or lignite from the integrated mine(s) not later than 60 days from the date of commercial operation of the integrated mine(s) or from the date of notification of these regulations, whichever is later and may also seek determination or revision of tariff of the concerned generating station(s) in accordance with these regulations."

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOF

7) Regulation 36 (1) of CERC (Terms & Conditions of Tariff) Regulations 2019 provides as under:

"36. Input Price of coal and lignite for energy charges:

"(1) Where the generating company has the arrangement for supply of coal or lignite from the integrated mine(s) allocated to it, for use in one or more of its generating stations as end use, the energy charge component of tariff of the generating station shall be determined based on the input price of coal or lignite, as the case may be, from such integrated mines determined in accordance with these regulations"

8) In accordance with the above Regulations, Petition No. 60/MP/2022 for determination and approval of input price of coal supplied from Pakri Barwadih (West & East block) (hereinafter referred to as **"Pakri Barwadih"**) was filed before the Hon'ble Commission based on the actual capital cost as on COD of Pakri Barwadih (i.e. 01.04.2019), and projected estimated additional capital expenditure for the period 01.04.2019 to 31.03.2024. Further, an IA (IA no. 01 of 2023) was also filed in the said petition (No. 60/MP/2022) of Pakri Barwadih.

9) The said petition is under active consideration of the Hon'ble Commission and the order for approval of input price of coal for Pakri Barwadih for the period from 01.04.2019 to 31.03.2024 is yet to be issued by the CERC in Petition No. 60/MP/2022. The capital cost claimed for determination of input price also included the projected additional capital expenditure from 01.04.2019 to 31.03.2024.

10) Further, Chapter-3, Regulation 13 of the Tariff Regulations 2019 as amended after the second amendment provides as under:

"(13) Truing up of tariff for the period 2019-24:

.....

"(1a) The input price of coal or lignite from the integrated mine(s) of the generating station(s) for the tariff period 2019-24 shall be trued up for:

a) the capital expenditure including additional capital expenditure incurred up to 31.3.2024, as allowed by the Commission;

b) the capital expenditure including additional capital expenditure incurred up to 31.3.2024, on account of Force Majeure and Change in Law, as admitted by the Commission."

PAWAN DEV JAMWAL
Chief Manager (Commercial)
NTPC LIMITED

c) *The Operation and Maintenance expenses in accordance with provisions of Regulation 36I."*

(2) The generating company or the transmission licensee, as the case may be, shall make an application, as per Annexure-I to these regulations, for carrying out truing up exercise in respect of the generating station or a unit thereof or the transmission system or an element thereof by 30.11.2024.

....."

11) In line with the provisions as quoted above, the Petitioner is filing this petition for truing up the additional capital expenditure for the control period 2019-24, based on capital cost as on 01.04.2019 as per the filed petition no. 60/MP/2022 and actual capital expenditure incurred during the tariff period from 01.04.2019 to 31.03.2024.

RE: REVISED COST ESTIMATE

12) The investment approval of the Pakri Barwadih Coal Mine project was accorded by NTPC Board at its 360th meeting held on 12.11.2010 at a project cost of Rs. 3193.86 Crs as of price level of 1st Qtr. 2010 for 15 MTPA capacity.

13) For acquisition of land, compensation package for Pakri Barwadih mine was approved by Govt of Jharkhand in Feb 2013. Subsequently, in view of demand of the project affected persons for increased compensation, revised Compensation cum R&R package was approved by Jharkhand administration in March 2015. Revised compensation packages were approved by NTPC board as and when these were cleared by Govt of Jharkhand. With the revised compensation packages approved by NTPC Board, overall approved project cost of Pakri Barwadih mining project as on 26.12.2020 was Rs.5044.60 Crs.

14) Subsequently, NTPC Board at its 535th meeting held on 07.10.2023 accorded an investment of Rs. 523.92 Crs for doubling of rail track between Hazaribagh and Barradag.

15) As mentioned above, the Board of NTPC vide its 360th, 367th, 393rd, 418th, 492nd and 535th meetings had approved a total of Rs. 5,568.60 Crores for meeting the investment requirements of the Project. Relevant Board approvals are attached hereto and marked **as Annexure – A**.

पवन देव जमोटा/PAWAN DEV JAMTA
उप महाप्रबंधक (समन्वयन)
Deputy General Manager (Coordination)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

16) Subsequently, Revised Cost Estimate (RCE) for Pakri Barwadih was accorded by NTPC Board at its 542nd meeting held on 29.04.2024 at a project cost of Rs. 10,323.09 Crs as of price level of 4th Qtr. 2023. Copy of the RCE approval accorded by NTPC Board is attached as **Annexure - B.**

17) It is submitted that the reason for increase in the RCE as compared to the Investment Approval cost is given as under:

a) Increase in land cost (increase in lease rent for GM Land), registration charges and cost of transfer of GM-JJ land.

b) Increase in cost of assets on private land.

c) Increased cost of forest diversion based on demand from the State Government.

d) Certain scope changes have also led to increase in the projected completion cost of the project. Major scope changes are as under:

i) Yard augmentation works at railway siding due to change in design and location of silo.

ii) Requirement of additional crushers for increased material handling capacity.

iii) Doubling of railway track between Banadag siding and Hazaribagh to support the increased rake dispatch.

iv) Last mile connectivity of CHP awarded as separate package with changed layout, drawings etc.

v) Completion of works for Nala diversion through WAPCOS and construction of additional check dams as stipulated in forest clearance conditions.

vi) Construction of integrated township etc.

A statement showing variation between the Investment Approval cost (including subsequent approvals by the NTPC Board) and the RCE is attached as **Annexure - C.**

RE: REVISED MINING PLAN

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एनटीपीसी/NTPC LIMITED
Noida-201301 (U.P.)

18) It is submitted that the Mining Plan (First Revision) for the Pakri Barwadih coal block comprising of West & East part and North-West part was approved by MoC, GoI for peak rated capacity of 18 MTPA on 07.03.2016. Copy of the Mining Plan dated 07.03.2016 is attached as **Annexure – D.**

19) Subsequently, in compliance to the directions of the Ministry of Coal (MoC) and Ministry of Power (MoP) to all producers to raise the Peak Rated Capacity (PRC) of captive mines and make all out efforts to increase the production of coal from captive mines in a fair and transparent manner, second revision of Mining Plan of Pakri Barwadih West & East part and North-West was approved in September, 2023 with revised peak rated capacity of 22 MTPA (19 MTPA of West & East part and 3 MTPA of North-West part). Copy of the Mining Plan (Second Revision) attached as **Annexure – E.**

20) Subsequent to the second revision in the Mining Plan, approvals of statutory clearances like Environment Clearance (EC), Forest Clearance (Stage II), Consent to Operate (CTO) & Consent to Establish (CTE) were received in March, 2024.

21) Accordingly, all the tariff calculations in this true up petition are in terms of the Mining Plan (Second Revision) approved in September, 2023.

RE: CALCULATION OF REVISION OF INPUT PRICE BY PETITIONER FOR FY 2019-2024

22) It is submitted that based on actual capital expenditure submitted in Petition No 60/MP/2022, the capital cost of Pakri Barwadih as on CoD comes out to be Rs 1252.50 Cr on cash basis and liabilities of Rs 640.79 Cr and notional IDC of Rs 51.63 Cr. The revision in input price has been calculated based on parameters provided in Tariff Regulations, 2019, as amended, and the year wise actual data as depicted below:

A. **Debt: Equity ratio**: 70:30.

B. **Base rate of return on equity**: This has been considered 14%.

पवन देव जाग्रत/PAWAN DEV JAMTA
उप महाप्रबन्धक (कॉर्पोरेट)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC A-64, Sector-24, Noida-201301 (U.P.)

C. **Rate of interest on loan:** It has been considered based on actual weighted average rate of interest of the project.

D. **Depreciation:** Straight line ddepreciation has been calculated as per life of assets mentioned in Appendix IA to Second amendment to Tariff Regulations, 2019.

E. **O&M expenses:** Regulation 36I (1) (a) of Tariff Regulations, 2019 provides that the O&M expenses shall be trued up based on the actual expenses for the tariff period ending on 31.03.2024. Therefore, the O&M expenses have been claimed based on actual O&M expenses for the tariff period from 01.04.2019 to 31.03.2024 in terms of Tariff Regulations, 2019, as amended. Auditor certified year wise O&M expenses claimed for the tariff period from 01.04.2019 to 31.03.2024 are attached hereto and marked as **Annexure – F (Colly).**

F. **Statutory expenses:** Regulation 36A (2) of Tariff Regulations, 2019 provides that the statutory charges, as applicable, shall be allowed. The statutory charges have been claimed based on actual statutory charges applicable for the tariff period from 01.04.2019 to 31.03.2024 in terms of Tariff Regulations, 2019, as amended. It is submitted that GST of 5% is applicable on coal, however, the same has been adjusted against input tax credit available in lieu of GST paid on MDO charges. Auditor certified year wise statutory charges claimed for the tariff period from 01.04.2019 to 31.03.2024 are attached hereto and marked as **Annexure – G.**

G. **Additional Capitalization:** The year-wise actual capital expenditure has been indicated and enclosed as part of Appendix-I herewith. In addition to the actual additional capital expenditure as above, discharge of liabilities during the period from 01.04.2019 to 31.03.2024 out of the liabilities excluded from capital cost for the works claimed have also been indicated. Auditor certified year wise Add Cap expenditure claimed for the tariff period from 01.04.2019 to 31.03.2024 is attached hereto and marked as **Annexure – H.**

H. **Mining Charge:**

पवन देव जमटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

a. Tariff Regulations, 2019, as amended, provides that MDO mining charge shall be allowed as part of input price of coal.

b. MDO mining charge has been claimed as per the Letter of Award issued to MDO and the agreement signed with the MDO.

c. In terms of the agreement signed with MDO, mining fee is subject to escalation based on pre-defined formula.

d. The mining fee for the tariff period from 01.04.2019 to 31.03.2024 has been claimed based on the applicable escalation in terms of the MDO Agreement.

e. Auditor certified detailed calculations of the mining fee including the escalation and deductions/recovery as per the MDO Agreement along with the stripping ratio provision for the tariff period from 01.04.2019 to 31.03.2024 are attached hereto and marked as **Annexure – I**.

I. **Surface Transportation Charges:**

a. It is submitted that as per Regulation 36A of CERC Tariff Regulations, 2019, as amended, transportation charges shall form part of input price of coal.

b. It is submitted that due to the reasons beyond control of the petitioner like land acquisition issue, law and order problems etc., CHP of Pakri Barwadih mine could not be capitalized before CoD. Detailed submissions in respect of the same have been made in the Petition No. 60/MP/2022 and considering that the said Petition is in active consideration of the Hon'ble Commission, same are not repeated here.

c. Subsequently, a CHP section comprising of Stream A & B from mines to Transfer Point (TP)–10 has been commissioned and put to use for coal transportation from mine mouth to TP-10.

d. It is submitted that the balance CHP section i.e. from TP-10 to the Rapid Loading Silo (RLS) & Railway Siding is expected to be completed and put to use in FY 2024-25.

e. It is submitted that as an alternative, contracts have been awarded on competitive bidding basis for transportation of the balance quantity of coal through trucks from mine end and TP-10 to loading point. Therefore,

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
NTPC LIMITED

transportation charges for the balance quantity of coal have been claimed as per the actual amount paid to the parties carrying out transportation of coal from mine mouth to loading point through trucks in terms of Regulation 36I (3) of Tariff Regulations, 2019. Hon'ble Commission may be pleased to allow the same. Auditor certified year wise surface transportation charges claimed for the tariff period from 01.04.2019 to 31.03.2024 are attached hereto and marked as **Annexure – J.**

J. **Mine Closure Expenses**

a. Detailed submissions in respect of the claim of the Mine Closure expenses have been made in the Petition No. 60/MP/2022 and considering that the said Petition is in active consideration of the Hon'ble Commission, same are not repeated here.

b. It is submitted that the mine closure expenses claimed for the tariff period from 01.04.2019 to 31.03.2024 are as per the provisions of the Regulations 36K of Tariff Regulations, 2019 and are based on the amounts deposited in the Escrow Account for respective years. Auditor certified year wise mine closure expenses claimed for the tariff period from 01.04.2019 to 31.03.2024 are attached hereto and marked as **Annexure – K.**

23) Further, in accordance with the provisions of the Regulation - 36G of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2021, for the purpose of computation of the Return on Equity, the base rate has been grossed up with the effective tax rate (MAT) applicable to NTPC at the end of respective financial years for the period 2019-24. The same is indicated in the Form-3A attached at Appendix-I.

24) In accordance with the provisions of the Regulation - 36J read with Regulation -34 of Tariff Regulations 2019, as amended, the rate of interest on working capital is considered at bank rate as on 1st April of each of the financial year during the tariff period of 2019-24. The same is indicated in the Form-J attached at Appendix-I.

PAWAN DEV JAMTA
Deputy General Manager (Commercial)
NTPC LIMITED
Noida-201301 (U.P.)

25) It is submitted that some of the loans allocated to this mine have been refinanced by taking new loans with a lower rate of interest. As per Regulation 61 (1) of Tariff Regulations 2019, the benefits of refinancing of loans have to be shared with the beneficiaries in the ratio of 50:50 (Beneficiaries: Generator). The same has been applied by adjusting the rate of interest of new loans while computing the weighted average rate of interest. The adjustment in rate of interest for new loans has been done as illustrated below:

Rate of interest of existing loan: 8.000% (say)

Rate of interest of new loan for refinancing of existing loan: 6.000% (say)

Rate of interest of new loan considered for computing weighted average rate of interest: 7.000%

RE: COAL PRODUCTION FROM PAKRI BARWADIH COAL MINE DURING FY 2020-21 and 2021-22

26) It is submitted that despite best possible efforts by NTPC, there had been shortfall in actual production compared to the Annual Target Quantity (ATQ) for FY 2020-21 & 2021-22 for the Pakri Barwadih due to facts and circumstances which were beyond the control of NTPC.

27) Detailed submissions in respect of the reasons for shortfall and prayer to exercise "Power to Relax" available with this Hon'ble Commission for the purposes of relaxation of ATQ for FY 2020-21 & 2021-22 have been made in the Petition No. 60/MP/2022. Considering that the said Petition is in active consideration of the Hon'ble Commission, same are not repeated here.

RE: ADJUSTMENT ON ACCOUNT OF SHORTFALL OF OVERBURDEN REMOVAL (OB ADJUSTMENT):

28) It is submitted that in respect of the adjustment of the shortfall of overburden removal, the (Second Amendment) to CERC Tariff Regulations, 2019, provides as below:

"Quote

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

"36N. Adjustment on account of Shortfall of Overburden Removal (OB Adjustment): (1) The generating company shall remove overburden as specified in the Mining Plan.

(2) In case of shortfall of overburden removal during a year, the generating company shall be allowed to adjust such shortfall against excess of overburden removal, if any, during subsequent three years.

(3) In case of excess of overburden removal during a year, the generating company shall be allowed to carry forward such excess to adjust shortfall, if any, during subsequent three years.

(4) Where the shortfall of overburden removal of any year is not made good by the generating company in accordance with Clause (2) of this Regulation, the adjustment on account of shortfall of overburden removal (OB Adjustment) for that year shall be worked out as under:

OB Adjustment = [Factor of adjustment for shortfall of overburden Removal during the year] x [Mining charge during the year + Operation and Maintenance expenses during the year]

Where,

5) *Factor of adjustment for shortfall of overburden removal during the year shall be computed as under:*

[[Actual quantity of coal or lignite extracted during the year x Annual Stripping Ratio as per Mining Plan] – [Actual quantity of overburden removed during the year/ Annual Stripping Ratio as per Mine plan]]/ (Annual Target Quantity);

ii) Annual Stripping ratio is the ratio of volume of overburden to be removed for one unit of coal or lignite as specified in the Mining Plan.

iii) Mining charge is the charge per tonne of coal or lignite paid by the generating company to the Mine Developer and Operator engaged by the generating company for mining, wherever applicable.

iv) Mining charge and Operation and Maintenance expenses shall be in terms of Rupees per tonne corresponding to the Annual Target Quantity.

(5) The provisions of this Regulation regarding adjustment on account of shortfall of overburden removal shall not be applicable in case of the integrated mine(s)

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
Noida-201301 (U.P.)

allocated through auction route under Coal Mines (Special Provisions) Act, 2015."

Unquote

[***Emphasis Supplied***]

29) As quoted above, the Regulation 36N (OB Adjustment) provides for adjustment of shortfall of overburden (OB) removal during a year against any excess overburden removed during the subsequent three years. Therefore, shortfall in overburden removal during FY 2019-20 & 2020-21 has been allowed to be adjusted against any excess overburden removed up to FY 2022-23 & 2023-24 respectively. Further, as per the regulatory provision any shortfall in OB removal for 2021-22, 2022-23 and 2023-24 is allowed to be adjusted against any excess overburden removed up to 2024-25, 2025-26 and 2026-27 respectively.

30) The actual coal and overburden production details vis-à-vis production schedule envisaged in the mining plan for FY 2019-20, 2020-21, 2021-22, 2022-23 and 2023-24 are as under:

Year	Coal Production (MMT)		OB Removal (MCM)			
	Target as per Mine Plan	Actual Achieved	Annual Target as per Mine Plan	Cumulative Target as per Mine Plan	Actual Achieved (Annual)	Actual Achieved (Cumulative)
2019-20	8.48	9.42	21.12	21.12	35.82	35.82
2020-21	9.50	7.07	26.11	47.23	26.34	62.16
2021-22	10.00	8.32	25.03	72.26	21.98	84.14
2022-23	10.00	13.23	35.51	107.77	44.83	128.97
2023-24	15.50	16.30	61.54	169.31	69.81	198.78

31) As can be observed from the above table, the shortfall in overburden removal during FY 2020-21 & 2021-22 period is offset by the excess OB removed during FY 2019-20, 2022-23 & 2023-24. Therefore, on cumulative basis there is no shortfall in overburden removal for the period from FY 2019-20 to 2023-24. Accordingly, in terms of the CERC Tariff Regulations, 2019, as amended, no OB Adjustment is applicable for the period from FY 2019-20 to 2023-24.

RE: ADJUSTMENT ON ACCOUNT OF SHORTFALL IN GCV (GCV ADJUSTMENT):

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
Noida-201301 (U.P.)

32) It is pertinent to submit that the Coal Controller declares the seam wise quality of coal for a financial year based on the sampling carried out in coal seams/sections to be mined in that financial year.

33) Due to the heterogeneous nature of the coal, Coal Controller declares the said seam wise coal quality in terms of grades from G1 to G17, each having a band of 300 kCal/kg.

34) Subsequently, the Mine Owner (generating company) declares the quality of coal in terms of the grade based on the seam wise grade of coal declared by the Coal Controller.

35) It is submitted that in case of Pakri Barwadih, the annual declared grade of coal for FY 2019-20, 2020-21, 2021-22, 2022-23 & 2023-24 is G9 (4601 – 4900 kcal/kg) and the weighted average grade of coal extracted for FY 2019-20, 2020-21, 2021-22, 2022-23 & 2023-24 is also G9. Since the declared grade and weighted average grade of coal extracted during FY 2019-20 to FY 2023-24 period is same i.e. G9 accordingly, in terms of the CERC Tariff Regulations, 2019, as amended, no GCV Adjustment is applicable for the period from FY 2019-20 to 2023-24. The relevant documents in respect of declaration of grade of coal for the period from FY 2019-20 to 2023-24 is attached as **Annexure - L**.

RE: ADJUSTMENT ON ACCOUNT OF NON-TARIFF INCOME (NTI ADJUSTMENT):

36) It is submitted that the case of Pakri Barwadih there is no sale of Washery rejects, supply of coal to Coal India Limited or merchant sale of coal under the Coal Mines (Special Provisions) Act, 2015 during the period FY 2019-20 to FY 2023-24. Therefore, there is no non-tariff income during the period FY 2019-20 to FY 2023-24.

RE: PROVISIONAL BILLING OF INPUT PRICE OF COAL

37) It is submitted that the Petitioner is presently billing input price of coal from Pakri coal mine at the Coal India notified price of the commensurate grade in terms of the Tariff Regulations, 2019, as amended. NTPC humbly submits that in the petition no. 60/MP/2022

पवन देव जनता/PAWAN DEV JANTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED

which is still under consideration of the Hon'ble CERC, the Petitioner has prayed to provisionally bill the input price of coal as per the petition no. 60/MP/2022 for the period starting from the CoD i.e. 01.04.2019 to 31.03.2024. Considering that the said Petition is in active consideration of the Hon'ble Commission, same are not repeated here.

RE: FILING FEE

38) It is submitted that the Petitioner has already paid the requisite filing fee. The proof of payment of fees is being submitted in Form I specified under Regulation 12 of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012, as amended from time to time. Further, the Regulation 70 (1) of Tariff Regulations 2019 provides that the application fee and publication expenses may be allowed to be recovered directly from the beneficiaries at the discretion of the Hon'ble Commission. Accordingly, it is prayed that Hon'ble Commission may be pleased to allow recovery of filing fee directly from the beneficiaries.

39) It is submitted that the Petitioner has uploaded the copy of the Petition at CERC site (Saudamini), the access of which is available to all the Respondents mentioned herein above and therefore the petition stands served to all the respondents. Further, the petitioner has also posted the Petition on the company website i.e. www.ntpc.co.in.

40) The Petitioner undertakes to submit any further information or clarification which may be required by this Hon'ble Commission for adjudication of the present petition.

Prayer

In light of the above submissions made, the Petitioner, therefore, prays that the Hon'ble Commission may be pleased to:

i) Approve revised input price of coal of Pakri Barwadih Coal Mine for the tariff period 2019 - 24 as per provision of Regulation 13 of Tariff Regulations, 2019 and subsequent second amendment of Tariff Regulations, 2019;

पवन देव जमुता/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

ii) Exercise the power of relaxation available in Regulation 4a proviso read with Regulations 76 & 77 of the Tariff Regulations, 2019 and relax the ATQ for FY 2020-21 & FY 2021-22;

iii) Allow the reimbursement of expenditure towards filing fees and any other expenditure incurred by the Petitioner in relation to filing the present petition before the Hon'ble Commission in terms of the Tariff regulation 2019, as amended, from the beneficiaries;

iv) Condone any error/omission in the petition and to grant an opportunity to the Petitioner to rectify the same;

v) Permit the Petitioner to make such further submission(s), addition(s) and alteration(s) to this Petition as may be necessary from time to time;

vi) Pass any other order as it may deem fit in the circumstances mentioned above.

(Petitioner)

Noida

Date: 27.11.2024

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

PETITION NO.....

For True-up in Pet. No. 60/MP/2022

IN THE MATTER OF : Petition Under Section 62 and 79 (1) (a) of the Electricity Act, 2003 read with Chapter-III of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 & 2023 and Regulation-13 (1a) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2021 for revision of input price of coal from Pakri Barwadih Coal Mine for the period from COD (i.e. 01.04.2019) to 31.03.2024 after the truing up exercise.

AND
IN THE MATTER OF

NTPC Limited .....Petitioner

Versus

Bihar State Power Holding Company Ltd & others .....Respondents

AFFIDAVIT

I, Pawan Dev Jamta, son of Mohinder Singh Jamta aged about 40 years, resident of C-181, NTPC Samridhi Township, Sector 33, Noida do solemnly affirm and state as under:

1. That I am the Deputy General Manager (Commercial) in NTPC Ltd. and am well conversant with the facts of the case and am competent to swear the present affidavit.
2. That the accompanying Petition under Section 62 and 79 (1) (a) of the Electricity Act, 2003, has been filed by my authorized representative under my instruction and the contents of the same are true and correct to the best of my knowledge and belief.
3. That the annexures annexed to the Petition are correct and true copies of the respective originals.

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एनटीपीसी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

4. That the Deponent has not filed any other Petition or Appeal before any other forum or court of law with respect to the subject matter of the dispute.

(Deponent)

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
NTPC, A-8A, Sector-24, Noida-201301 (U.P.)

Verification

I, Pawan Dev Jamta, the deponent above named, do hereby verify that the contents of the above affidavit are true to the best of my knowledge, no part of it is false and nothing material has been concealed therefrom.

Verified at Noida (UP) on this ..... day of..... 2024.

(Deponent)

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
NTPC, A-8A, Sector-24, Noida-201301 (U.P.)

NOTARY GOVT. OF INDIA

ATTESTED
JOGENDRA SINGH
NOTARY NOIDA
G.B. NAGAR (U.P.) INDIA

27 NOV 2024

APPENDIX-I

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Petition No : .....

TARIFF FILING FORMS (INTEGRATED MINE)

FOR TRUING-UP OF INPUT PRICE

FOR

PAKRI BARWADIH COAL MINE

(FOR THE PERIOD 01.04.2019 TO 31.03.2024)



Checklist of Main Tariff Forms and other information for tariff filing for Integrated Mine

Form No.	Title of Tariff Filing Forms (Integrated Mine)	Tick
FORM- 1	Summary of Input Price	✓
FORM -1A	Summary of ROM Cost	✓
FORM -1B	Summary of Additional Charges	✓
FORM-2	Statement showing claimed Capital Cost	✓
FORM-2A	Statement showing claimed Return on Equity	✓
FORM-2B	Statement showing claimed O&M cost	✓
FORM- 3	Mine Characteristics/Important Details as per Mine Plan	✓
FORM- 3A	Normative Parameters considered for Input Price computation	✓
FORM- 4	Details of Foreign loans	N/A
FORM- 4A	Details of Foreign Equity	N/A
FORM-5	Abstract of Admitted Capital Cost for the existing Integrated Mine	N/A
FORM- 6	Financial Package up to date of commercial operation & up to Peak rated capacity	N/A
FORM- 7	Details of Integrated Mine Specific Loans	N/A
FORM- 8	Details of Allocation of corporate loans to Integrated Mine	✓
FORM-9	Year wise Statement of Additional Capitalization after date of commercial operation up to/ beyond achieving Peak rated Capacity	✓
FORM- 10	Financing of Additional Capitalization	✓
FORM- 11	Calculation of Depreciation	✓
FORM- 12	Statement of Depreciation	✓
FORM- 13	Calculation of Weighted Average Rate of Interest on Actual Loans	✓
FORM- 14	Draw Down Schedule for Calculation of IDC & Financing Charges	N/A
FORM- 15	Non-Tariff Income	✓
FORM- 16	Details of Applicable Statutory Charges	✓
FORM-17	Details of Mine Closure expenses	✓
FORM- 18	Details for GCV Adjustment	✓

पवन देव जमुआ/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्य)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PART-IV

List of Supporting Forms / documents for tariff filing for Integrated Mine

Form No.	Title of Tariff Filing Forms (Integrated Mine)	Tick
FORM-A	Abstract of Capital Cost Estimates and cost on date of commercial operation of the Integrated Mine	N/A
FORM-B	Break-up of Capital Cost for New Integrated Mine	N/A
FORM-C	Break-up of Construction/Supply/Service Packages	N/A
FORM -D	Details of Assets De-capitalized during the period	✓
FORM -E	Reconciliation of Capitalization claimed vis-à-vis books of accounts	✓
FORM -F	Statement showing details of items/assets/works claimed under Exclusions	✓
FORM-G	Statement of Capital cost	✓
FORM-H	Statement of Capital Woks in Progress	✓
FORM-I	Calculation of Interest on Normative Loan	✓
FORM-J	Calculation of Interest on Working Capital	✓
FORM-K	Incidental Expenditure up to date of commencement of Production and up to Actual/anticipated date of commercial operation	N/A
FORM-L	Expenditure under different packages up to date of commencement of Production and up to Actual/anticipated date of commercial operation	N/A
FORM-M	Actual cash expenditure	N/A
FORM-N	Statement of Liability flow	✓

पवन देव जामता/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्य)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

List of supporting documents for tariff filing for Integrated Mine

S. No.	Information / Document	Tick
1	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association (For New Integrated Mine setup by a company making application for the first time to CERC)	N/A
2	A. Mine wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures on date of commercial operation of the Mine for the new mine & for the relevant years. B. Mine wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the existing mine for relevant years.	✓
3	Copies of relevant loan Agreements	N/A
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	✓
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	N/A
6	List of End use generating plant to whom supplies made/to be made and quantity supplied/to be supplied	✓
7	Integrated Mine shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the Integrated Mine and subsequently consolidated at Company level as submitted to the Govt. of India from the date of commencement of production in case of a new mine or first two years i.e. 2019-20 and 2020-21 at the time of mid-term true- up in 2021-22 and for balance period of tariff period 2019-24 at the time of final true-up in 2024-25. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	N/A
8	Any other relevant information. (Please specify)	N/A
9	Reconciliation with Balance sheet of any actual capitalization or additional capitalization year on year basis duly audited	✓
10	Integrated mine is maintaining the records to be submitted frequently to the Coal Controller Office. Copy of Same should be furnished to the Commission at the time of submission to CCO. Forms may be suitably modified to furnish relevant important information for input price determination	✓

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (परिचालन)
Dep. General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Summary of Input Price

PART-IV
FORM- 1

Name of the Petitioner: **NTPC Ltd**

Name of the Integrated Mine: **Pakri Barwadih**

Place (Region/District/State): **ER/ Hazaribagh/ Jharkhand**

S. No.	Particulars	Unit	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8	9
1.1	ROM Cost as per Form 1 A	Rs/Tonne	Not Applicable	1248.01	1430.81	1596.60	1855.44	1693.89
1.2	Surface Transportation Charges#	Rs/Tonne		275.93	308.37	309.18	232.13	207.44
	Input Price	Rs/Tonne		1523.94	1739.18	1906.78	2088.78	1900.57
1.3	Statutory Charges	Rs/Tonne		733.70	770.25	786.90	797.76	806.00
1.4	**Total input price**	**Rs/Tonne**		**2257.64**	**2509.43**	**2693.68**	**2886.54**	**2706.57**

(Petitioner)

Details of Auditor Certified Surface Transportation Charges attached as Annexure-2 to the Petition.

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Summary of RCM Cost

PART IV
FORM 14

Name of the Petitioner: NTPC Ltd.
Name of the Generating Stn.: Tulsi Hardwell
Plant (Region/Station Name): 2X1 Hardwell Petitioner

(Amount in Rs. Lakh)

S. No.	Particulars	Unit	Existing 2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	2	3	4	5	6	7	8	9
1.1	Depreciation	Rs Lakh	Not applicable	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1.2	Interest on Loan	Rs Lakh		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1.3	Return on Equity	Rs Lakh		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1.4	Interest on Working Capital	Rs Lakh		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1.5	O&M Expenses including wiring charge	Rs Lakh		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1.6	Other income expense	Rs Lakh		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1.7	Total Annual Transmission Cost (Sum of above 1.1 to 1.6)	Rs Lakh		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1.8	Annual Target Quantity (ATQ) as per cover plan	Tonne		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1.9	Annual Transmission cost per tonne (1.0 to Rs/2.0)	Rs/Tonne		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1.9	Wiring charge*	Rs/Tonne		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1.9	RCM cost (1.0+1.0)	Rs/Tonne		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

(Petitioner)

* Details of Auditor Certified Wiring Charge attached to Statement 1 to the Petition

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PART-IV
FORM-1

Statement showing claimed capital cost

Name of the Petitioner: NTPC Ltd

Name of the Integrated Mine: Pakri Barwadih

Amount in Rs Lakhs

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
1	Opening Capital Cost	1,50,412.08	1,74,943.84	2,02,635.78	3,29,617.82	4,25,929.38
2	Add: Addition during the year/period	19,293.00	18,634.15	3,05,841.28	71,952.64	32,312.28
3	Less: De-capitalization during the year/period	-	-	-	2.60	270.41
4	Add: Discharges of Liability during the year	25,148.16	8,083.79	24,120.77	22,361.52	14,015.37
5	**Closing Capital Cost (1+2-3+4)**	1,74,943.84	2,02,635.78	3,29,617.82	4,25,929.38	4,71,115.82
6	**Average Capital Cost**	1,62,679.26	1,88,300.81	2,66,136.80	3,76,773.60	4,47,322.58

(Petitioner)

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

PART- IV
FORM-2.6

Statement showing claimed Return on Equity

Name of the Petitioner: NTPC Ltd

Name of the Integrated Mine: Pakri Barwadih

Amount in Rs Lakhs

Sr	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
A)	**Return on Equity**					
1	Opening Equity	36,123.88	52,483.71	60,796.73	98,885.35	1,27,178.81
2	Add: Increase in equity due to addition during the year / period	5,817.90	5,887.24	34,852.38	21,585.79	9,753.64
3	Less: Decrease due to De capitalization during the year / period	-	-	-	0.79	83.82
4	Add: Increase due to discharges during the year / period	7,542.05	2,425.74	7,236.25	6,708.46	4,468.01
5	Closing Equity (1+2-3+4)	52,483.71	60,796.73	98,885.35	1,27,178.81	1,31,373.69
6	Average Equity	45,803.79	56,640.24	79,841.04	1,13,032.08	1,34,256.75
7	Rate of ROE (Pre Tax)	16.964	16.964	16.964	15.964	16.964
8	Total ROE	7,770.15	9,608.41	13,544.23	19,174.38	22,775.32

(Petitioner)

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PART-IV
FORM-18

Statement showing claimed O&M cost

Name of the Petitioner: NTPC Ltd.

Name of the Integrated Mine: Pakri Barwadih

Amount in Rs Lakhs

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
1	Opening Capital Cost					
2	Add: Addition during the year/period					
3	Less: De-capitalisation during the year/period					
4	Add: Discharges of Liability during the year/period					
5	Closing Capital Cost (1+2-3+4)					
6	Average Capital Cost					
7	Actual annual O&M in terms of Regulation 36*	14,508.31	13,757.04	17,482.75	21,408.67	26,827.82
8	Annual Charge of Agency(ies) Other Than MDO#	870.11	970.60	1449.53	1,303.42	1,341.47
9	Total Claimed O&M Expenses	15,838.44	14,727.63	18,932.28	22,711.90	28,169.30

(Petitioner)

* Auditor Certified Break-up of O&M Expenses claimed is provided as Annexure - I to the Petition.
\# Auditor Certified Break-up of Annual Charge of Agency(ies) Other Than MDO claimed is provided as Annexure - II to the Petition.

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Mine Characteristics/Important Details as per Approved Mine Plan (Mine Plan dated 07.03.2016 for period from FY 2019-20 to FY 2022-23, Mine Plan dated 21.09.2023 for FY 2023-24)	PART- IV FORM-5

Name of the Petitioner: NTPC Ltd.

Name of the Integrated Mine: Pakri Barwadih

Sr No	Parameters	Values
1	Mining plan/Mine closure plan Revision number and date of revision, if any	Mining Plan (First Revision) No.: (3016/29/2003-CA-I(Part)), Dated: 07.03.2016 Mining Plan (Second Revision) dated 21.09.2023.
2	Peak rated Capacity	19 MTPA
3	Year in which proposed to be achieved	10th Year(From the base year 2023-24)
4	Mineable reserves (Opencast)	501.38 Million Metric Tonnes
5	Mining area land – Acquired/ Leased	4209.84 Ha
6	If Leased - Period and terms of lease	N.A
7	Mining Block Area	5043.76 Ha
8	Type of Mining	Opencast
9	Method of Mining	Opencast (Shovel - Dumper Combination)
10	Mine life in Years	29 Years (as per approved mining plan from base year i.e 2023-24)
11	Scheduled date of commercial operation as per Investment approval	N/A
12	Distance of Loading Point from mine end	30 Km (Approx) upto Bansdag siding
13	Gross Calorific value (GCV in Kcal/Kg) of coal as per Geological Report, Range /Mean	2491 to 6321, 4385.5
14	Specific gravity of coal (Avg)/Calculated from GR	1.65
15	Main Equipments	Shovel, Dumper, Drill, Dozer, Grader
16	Other Important Parameters as deemed necessary	High inclinations, (1 in 4), Highly faulted(29 faults), Densely inhabited (27 villages), High stripping ratio, Poor Law & Order, Maoist infested area

CALENDER PRODUCTION PROGRAMME DURING THIS TARIFF PERIOD*

Production Year/s	Coal Production (Mt)	OB Removal (Mm^3)	Stripping Ratio (m^3/t)
2019-20	8.48	21.12	2.49
2020-21	9.50	26.13	2.75
2021-22	10.00	25.03	2.50
2022-23	10.00	35.51	3.55
2023-24	15.50	61.54	3.97

ACTUAL PRODUCTION ACHIEVED DURING THIS TARIFF PERIOD

Production Year/s	Coal Production (Mt)	OB Removal (Mm^3)	Stripping Ratio (m^3/t)
2019-20	9.42	35.82	3.80
2020-21	7.07	26.34	3.73
2021-22	8.22	21.98	2.64
2022-23	13.2360	44.8300	3.38
2023-24	16.3000	69.8100	4.28

(Petitioner)

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Normative parameters considered for Input Price computations

PART- IV
FORM-3A

Name of the Petitioner: NTPC Ltd

Name of the Integrated Mine: Pakri Barwadih

Particulars	Unit	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
Base Rate of Return on Equity	%	Not Applicable	14	14	14	14	14
Effective Tax Rate	%		17.472	17.472	17.472	17.472	17.472
Input Cost of Coal for WC	in days		7	7	7	7	7
Consumption of stores and spares % of O&M	%		15	15	15	15	15
One Month O&M Expenses	Rs lakh		1919.67	1227.30	1577.60	1892.67	2348.11
Rate of Interest on Working Capital	%		12.05	11.25	10.50	10.50	12.00

(Petitioner)

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

DETAILS OF FOREIGN LOANS
(Details only in respect of loans applicable to the Integrated mine under section)

Name of the company: NTPC LIMITED
Name of the Integrated Mine: Pakri Barwadih

Exchange Rate as on						
Exchange Rate as on						
Exchange Rate as on						
Exchange Rate as on						
Exchange Rate as on						
Exchange Rate as on						

Financial Year (Starting from 1/4/)																						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
(FC Exc. SAD/ Interest Draw)	Date	Amount (FC)	Ex. Rate	Amount (INR)	Date	Amount (FC)	Ex. Rate	Amount (INR)	Date	Amount (FC)	Ex. Rate	Amount (INR)	Date	Amount (FC)	Ex. Rate	Amount (INR)	Date	Amount (FC)	Ex. Rate	Amount (INR)	Date	Amount (FC)	Ex. Rate	Amount (INR)
Currency (-/+)																								
% the date of draw				-																				
Less: Repayment with previous period																								
Net loan at the Beginning of the period				-																				
Schedule repayment date of principal																								
Scheduled payment date of interest																								
Withholding tax including surcharge on interest																								
Schedule repayment date of principal				-																				
Scheduled payment date of interest				-

Part - II
Form-4

(DETAILS OF FOREIGN LOANS)
(Details only in respect of loans applicable to the integrated mine under petition)

Name of the company: NTPC LIMITED
Name of the Integrated Mine: Pakri Barwadih

(Amount in Lacs)

Financial Year (Starting from 1/4/)		8.80%																					
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
(FC Loan, $/€/¥ Wise) or Total (Rupee Loan)	Date	Amount (FC)	Ex. Rate	Amount (INR)	Date	Amount (FC)	Ex. Rate	Amount (INR)	Date	Amount (FC)	Ex. Rate	Amount (INR)	Date	Amount (FC)	Ex. Rate	Amount (INR)	Date	Amount (FC)	Ex. Rate	Amount (INR)	Date	Amount (FC)	Ex. Rate	Amount (INR)
Currency (JPY)																								
At the start of Year				-																				
Less: Repayment upto previous month																								
Net loan at the beginning of the period				-																				
Amounts recovered (date of receipt)																								
Scheduled payment date of interest																								
including the accruing purchase on interest				-																				
Amounts repayment date of principal																								
Scheduled payment date of interest				-																				
including the accruing purchase on interest				-																				
Amounts repayment date of principal																								
Scheduled payment date of interest				-																				
including the accruing purchase on interest				-																				
(JPY)					[illegible]				[illegible]												[illegible]			
At the end of Financial year				0.00	[illegible]	-	0.01	-	[illegible]	-	0.01	-									[illegible]	13,870.78	0.01	138.71

पवन देव जाजोदा/PAWAN DEV JAJOTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Details of Allocation of corporate loans to Integrated Mine

Part-IV
Form-8

Form 8

TRANCHE NO

BP NO 5050000661 **T00001** **D00001**

Unsecured Loan From HDFC Bank Ltd. IX		
Source of Loan :	HDFC Bank Ltd. IX	
Currency :	INR	
Amount of Loan :	50,00,00,00,000	
Total Drawn amount :	3,00,00,00,000	
Date of draw	30.06.2020	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest :	6.30%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment :	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	30.06.2020	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	12 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	30.06.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-I	67,66,00,000
	TAPOVAN VISHNUGAD	26,65,00,000
	PAKRI BARWADIH CM/B	49,00,00,000
	LARA-I	25,59,00,000
	GADARWARA	20,25,00,000
	DARLIPALLI	20,00,00,000
	TALAIPALI COAL MINE	15,00,00,000
	BARAUNI-II	20,00,00,000
	BILHAUR SOLAR 140MW	20,00,00,000
	JETSAR SOLAR	5,00,00,000
	KIRENDARI	15,00,00,000
	CHATTI BARIATU CMB	15,85,00,000
Total Allocated Amount		**3,00,00,00,000**

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000981 **T00001** **D00004**

Unsecured Loan From HDFC Bank Ltd. IX		
Source of Loan :	HDFC Bank Ltd. IX	
Currency :	INR	
Amount of Loan :	50,00,00,00,000	
Total Drawn amount :	16,10,00,00,000	
Date of drawl	24.08.2020	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	6.30%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	24.08.2020	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	12 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	30.06.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-II	2,54,31,57,061
	BONGAIGAON	2,06,81,00,000
	CHATTI BARIATU CMP	13,50,00,000
	JETSAR SOLAR	20,00,00,000
	KAHALGAON-II	11,43,64,133
	KHARGONE	1,20,00,00,000
	KOLDAM	4,54,00,000
	KORBA-III	2,14,43,267
	KUDGI	45,00,00,000
	LARA-I	7,85,71,430
	MOUDA-I	69,46,38,787
	MOUDA-II	1,60,00,00,000
	NORTH KARANPURA	50,00,00,000
	PAKRI BARWADIH CMG	1,07,21,55,097
	RAMMAM	50,00,00,000
	RIHAND-III	20,43,00,000
	SIMHADRI-II	22,70,00,000
	SIPAT-I	16,57,38,787
	SOLAPUR	53,79,74,258
	TANDA-II	1,20,00,00,000
	UNCHAHAR STPP IV	16,00,00,000
	VINDHYACHAL-IV	85,83,00,000
	VINDHYACHAL-V	1,46,26,57,140
Total Allocated Amount		16,10,00,00,000

पवन देव जमता/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

TRANCHE NO

BP NO 5050000861 T00001 D00010

Unsecured Loan From HDFC Bank Ltd. IX		
Source of Loan :	HDFC Bank Ltd. IX	
Currency :	INR	
Amount of Loan :	50,00,00,00,000	
Total Drawn amount :	6,83,00,00,000	
Date of drawl	24.12.2020	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest :	5.95%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	24.12.2020	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	12 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	30.06.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	TANDA-II	7,50,00,000.00
	BARH I	68,00,00,000.00
	NORTH KARANPURA	50,00,00,000.00
	GADARWARA	50,00,00,000.00
	LARA-I	30,00,00,000.00
	DARLIPALLI	10,00,00,000.00
	KHARGONE	84,00,00,000.00
	TAPOVAN VISHNUGARH	25,00,00,000.00
	RAMAM	15,00,00,000.00
	BARAUNI-II	3,00,00,000.00
	RAMAGUNDAM FLOATING SOL	9,00,00,000.00
	BILHAUR SOLAR 140MW	6,00,00,000.00
	BILHAUR SOLAR 85MW	13,00,00,000.00
	AURAIYA SOLAR 20MW	3,20,00,000.00
	SIMHADRI FLOATING	1,50,00,000.00
	KAYAMKULAM FS (22 MW)	4,00,00,000.00
	JETSAR SOLAR	2,00,00,000.00
	FATEHGARH (296MW)	60,00,00,000.00
	BONGAIGAON	60,00,00,000.00
	SOLAPUR	10,00,00,000.00
	KORBA R&M	10,00,00,000.00
	VINDHYACHAL R&M	5,30,00,000.00
	FARAKKA R&M	2,50,00,000.00
	KORENDARI	4,00,00,000.00
	FAKIR BARWADIH CMB	1,50,00,00,000.00
Total Allocated Amount		**6,83,00,00,000**

पवन देव जमता/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000211 **T00001** **D00004**

Unsecured Loan From Vijaya Bank-IV		
Source of Loan :	Vijaya Bank - IV	
Currency :	INR	
Amount of Loan :	3,79,00,00,000	
Total Drawn amount :	1,19,00,00,000	
Date of drawl	23.05.2011	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	D00004-10.00%	
Margin, If Floating Interest :	D00004 - 0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	15.09.2010	
Repayment Period (Inc Moratorium) :	10 Years	
Repayment Frequency :	14 Half Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	15.03.2014	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-II	29,00,00,000.00
	PAKRI BARWADIH	25,00,00,000.00
	MAUDA	15,00,00,000.00
	SIPAT-I	50,00,00,000.00
Total Allocated Amount		**1,19,00,00,000.00**

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000241 **T00001** **D00001**

Unsecured Loan From Bank of Maharashtra-IV		
Source of Loan :	**Bank of Maharashtra-IV**	
Currency :	INR	
Amount of Loan :	1,00,00,00,000	
Total Drawn amount :	50,00,00,000	
Date of Drawl	23.03.2011	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	D00001=10.50%	
Margin, If Floating Interest :	D00001= 0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	23.03.2011	
Repayment Period (inc Moratorium) :	13 Years	
Repayment Frequency :	20 Half Yearly instalments	
Repayment Type :	AVG	
First Repayment Date :	23.09.2014	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	PANKI BARWADIH	50,00,00,000
Total Allocated Amount		**50,00,00,000**

पवन देव जमता/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्य)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000301 **T00001** **D00003**

Unsecured Loan From Bank of Maharashtra-V		
Source of Loan :	Bank of Maharashtra-V	
Currency :	INR	
Amount of Loan :	4,00,00,00,000	
Total Drawn amount :	50,00,00,000	
Date of Draw/	21.06.2012	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, if Floating Interest	D00003=10.50%	
Margin, if Floating Interest :	D00003= 0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	29.03.2012	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	16 Half Yearly Instalments	
Repayment Type :	AVG	
First Repayment Date :	29.09.2016	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	RIHAND-III	30,00,00,000
	PAKRIBARWADIH	20,00,00,000
Total Allocated Amount		**50,00,00,000**

पवन देव जमता/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Dep. General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000331 **T00001** **D00003**

Unsecured Loan From Corporation Bank-III		
Source of Loan :	**Corporation Bank-III**	
Currency :	INR	
Amount of Loan :	5,00,00,00,000	
Total Drawn amount :	50,00,00,000	
Date of Drawal :	25.03.2013	
Interest Type :	Floating	
Fixed Interest Rate :	D00003-10.25%	
Base Rate, If Floating Interest	-	
Margin, If Floating Interest :	-	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	5 Years	
Moratorium effective from :	28.09.2012	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	20 Half Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	28-Mar-18	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	PAKRI BARWADIH	50,00,00,000
Total Allocated Amount		**50,00,00,000**

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form B

TRANCHE NO

BP NO 5050000331 **T00001** **D00005**

Unsecured Loan From Corporation Bank-III		
Source of Loan :	**Corporation Bank-III**	
Currency :	INR	
Amount of Loan :	5,00,00,00,000	
Total Drawn amount :	50,00,00,000	
Date of Drawal :	01.11.2013	
Interest Type :	Floating	
Fixed Interest Rate :	D00005-10.25%	
Base Rate, If Floating Interest	-	
Margin, If Floating Interest :	-	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	5 Years	
Moratorium effective from :	28.09.2012	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	20 Half Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	28-Mar-18	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	PAKRI BARWADIH	50,00,00,000
Total Allocated Amount		**50,00,00,000**

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

TRANCHE NO

BP NO 5050000351 **T00001** **D00002**

Unsecured Loan From Canara Bank - III		
Source of Loan :	**Canara Bank - III**	
Currency :	INR	
Amount of Loan :	10,00,00,00,000	
Total Drawn amount :	2,50,00,00,000	
Date of Drawal :	22.07.2013	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	D00002- 9.95%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	5 Years	
Moratorium effective from :	28.03.2013	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	20 Half Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	28.09.2018	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-II	1,53,00,00,000
	PAKRI BARWADIH COAL MINE	80,00,00,000
	CHATTI BAIRATU COAL MINE	17,00,00,000
Total Allocated Amount		**2,50,00,00,000**

पवन देव जमटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000009 & 231 **T00001** **D00002**

Unsecured Loan From HDFC Bank Ltd.-II		
Source of Loan :	HDFC Bank Ltd.-II	
Currency :	INR	
Amount of Loan :	10,00,00,00,000	
Total Drawn amount :	1,50,00,00,000	
Date of drawl	18.11.2.10	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	D00002=8.00%	
Margin, If Floating Interest :	D00002= 0.75%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	26.10.2010	
Repayment Period (Inc Moratorium) :	10 Years	
Repayment Frequency :	14 Half Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	26.04.2014	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	PAKRI BARWADIH-I	1,50,00,00,000
Total Allocated Amount		**1,50,00,00,000**

पवन देव जमटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्य)
Dy. / General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000421 **T00001** D00005

Unsecured Loan From HDFC Bank Ltd.-III		
Source of Loan :	**HDFC Bank Ltd.-III**	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	2,00,00,00,000	
Date of Drawal:	11.07.2016	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, if Floating Interest	D00005-9.10%	
Margin, if Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	04.12.2014	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	04.12.2021	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	TAPOVAN VISHNUGAD	9,00,00,000
	SOLAPUR	9,00,00,000
	GADARWARA	36,00,00,000
	UNCHAHAR STPP IV	15,00,00,000
	NORTH KARANPURA	4,00,00,000
	DARLIPALLI	48,00,00,000
	TANDA-II	9,00,00,000
	ANANTPUR SOLAR	9,00,00,000
	MOUDA-II	20,00,00,000
	KUDGI	31,00,00,000
	FAKRI BARWADIH	10,00,00,000
Total Allocated Amount		**2,00,00,00,000**

पवन देव जमता/PAWAN DEV JAMTA
उप महाप्रबंधक (वित्तीय)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 6

TRANCHE NO

BP NO 5050000561 T00001 D00003

Unsecured Loan From HDFC Bank Ltd.-V		
Source of Loan :	HDFC Bank Ltd.-V	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	1,00,00,00,000	
Date of Drawl:	13.11.2017	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest		
Margin, If Floating Interest :	D0003-7.9%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	25-Sep-18	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	25-Sep-24	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	SOLAPUR	77,00,00,000
	PAKRI BARWADIH COAL MINE	26,00,00,000
	BONGAIGAON	27,00,00,000.00
	TELANGANA	12,00,00,000.00
	BARH - II	10,00,00,000.00
	ROJMAL WIND	15,00,00,000.00
	LARA	10,00,00,000.00
	CHATTI BARIATU CMB	15,00,00,000.00
	DULANGA COAL MINE	8,00,00,000.00
Total Allocated Amount		**2,00,00,00,000.00**

PAWAN DEV JAMTA
Dep. / General Manager (Commercial)
NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 50500000451 **T00001** D00003

Unsecured Loan From ICICI-IV		
Source of Loan :	ICICI-IV	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	2,50,00,00,000	
Date of Drawal		
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	D00003 -9.10%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	16.02.2016	
Repayment Period (Inc Moratorium) :	15 years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	16.02.2023	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	LARA	30,00,00,000.00
	GADARWARA	55,00,00,000.00
	UNCHAHAR STPP IV	15,00,00,000.00
	NORTH KARANPURA	30,00,00,000.00
	DARLIPALLI	50,00,00,000.00
	TANDA-II	15,00,00,000.00
	KHARGONE	15,00,00,000.00
	PAKRI BARWADIH	30,00,00,000.00
	CHATTI BARIATU	10,00,00,000.00
Total Allocated Amount		**2,50,00,00,000.00**

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 50500000451 **T00001** D00004

Unsecured Loan From ICICI-IV		
Source of Loan :	ICICI-IV	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	2,25,00,00,000	
Date of Drawal		
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	D00004 -9.10%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	16.02.2016	
Repayment Period (Inc Moratorium) :	15 years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	16.02.2023	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	LARA	30,00,00,000.00
	GADARWARA	30,00,00,000.00
	UNCHAHAR STPP IV	5,00,00,000.00
	NORTH KARANPURA	30,00,00,000.00
	DARLIPALLI	30,00,00,000.00
	TANDA-II	30,00,00,000.00
	KHARGONE	15,00,00,000.00
	KUDGI	30,00,00,000.00
	ANANTPUR SOLAR	17,00,00,000.00
	PAKRI BARWADIH	8,00,00,000.00
Total Allocated Amount		**2,25,00,00,000.00**

पवन देव जानटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form II

TRANCHE NO

BP NO 50500000451 **T00001** 000008

Unsecured Loan From ICICI-IV		
Source of Loan :	ICICI-IV	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	1,00,00,00,000	
Date of Drawal		
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	D00004 -7.9%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment :	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	16.02.2016	
Repayment Period (Inc Moratorium) :	15 years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	16.02.2023	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	DADRI GAS R&M	56,00,00,000.00
	PAKRI BARWADIH CMB	44,00,00,000.00
Total Allocated Amount		**1,00,00,00,000.00**

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्य)
Deputy General Manager (Commercial)
एन.टी.पी.सी. लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 50500000451 **T00001** D00009

Unsecured Loan From ICICI-IV		
Source of Loan :	ICICI-IV	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	1,00,00,00,000	
Date of Drawal		
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	D00004 -7.9%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	16.02.2016	
Repayment Period (Inc Moratorium) :	15 years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	16.02.2023	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	BARH-I	40,00,00,000.00
	PAKRI BARWADIH CMB	60,00,00,000.00
Total Allocated Amount		**1,00,00,00,000.00**

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वित्त एवं लेखा)
Dep. General Manager (Co. Accounts)
एन.टी.पी.सी. (NTPC) LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 50500000461 **T00001** **DD**

Unsecured Loan From ICICI-V		
Source of Loan :	ICICI-V	
Currency :	INR	
Amount of Loan :	30,00,00,00,000	
Total Drawn amount :	28,00,00,00,000	
Date of Drawal	20.12.2016	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	D00001 -8.80%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	20.12.2016	
Repayment Period (Inc Moratorium) :	12 years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	20.12.2020	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	SINGRAULI IIMW HYDRO	8,75,00,000.00
	BARH-I	28,57,14,290.00
	BARH-II	6,75,75,89,280.00
	BONGAIGAON	2,94,19,64,287.00
	FARAKKA III	11,42,85,716.00
	FARIDABAD SOLAR PV	8,75,00,000.00
	KOLDAM	3,52,50,00,000.00
	KUDGI	2,00,00,00,000.00
	LARA	2,28,12,50,000.00
	MOUDA-I	1,05,44,64,284.00
	MOUDA-II	50,00,00,000.00
	NCTPP-II	14,28,57,139.00
	NORTH KARANPURA	50,00,00,000.00
	PAKRI BARWADIH CMS	52,50,00,000.00
	RAJGARH SOLAR	13,12,50,000.00
	RIHAND-III	1,22,85,71,426.00
	SIMHADRI-II	23,21,42,855.00
	SINGRAULI SOLAR	8,75,00,000.00
	SIPAT-I	23,43,75,000.00
	SIPAT-II	1,01,07,14,287.00
	TAPOVAN VISHNUGAD	65,62,50,000.00
	VINDHYACHAL-IV	2,45,00,00,000.00
	VINDHYACHAL-V	1,00,00,00,000.00
	GANDHAR R&M	16,60,71,436.00
Total Allocated Amount		**28,00,00,00,000.00**

पवन देव जामता/PAWAN DEV JAMTA
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
SDC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 60600000841 | T00001 | D0002

Unsecured Loan From ICICI-VI		
Source of Loan :	ICICI-VI	
Currency :	INR	
Amount of Loan :	30,00,00,00,000	
Total Drawn amount :	3,00,00,00,000	
Date of Drawal	25.09.2017	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	D0000-7.90%	
Margin, If Floating Interest :	NIL	
Are there any Cap/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Cap/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	11.09.2017	
Repayment Period (Inc. Moratorium) :	15 years	
Repayment Frequency :	5 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	11.09.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	MOUDA-I	7,15,00,000.00
	RAKRI BARWADIH CMS	82,71,00,000.00
	TALAIPALI COAL MINE	34,00,00,000.00
	KORBA-III	21,35,00,000.00
	NCTPP-II	16,61,00,000.00
	RIHAND-III	41,70,00,000.00
	SIMHADRI-II	48,04,00,000.00
	VSTPP-IV	48,04,00,000.00
Total Allocated Amount		3,00,00,00,000.00

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वित्तीय/Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 3

TRANCHE NO

BP NO 00000000541 T00001 00006

Unsecured Loan From ICICI-VI		
Source of Loan :	ICICI-VI	
Currency :	INR	
Amount of Loan :	10,00,00,00,000	
Total Drawn amount :	1,00,00,00,000	
Date of Drawal	11.12.2017	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	00006-7.85 %	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	8 Years	
Moratorium effective from :	11.09.2017	
Repayment Period (Inc Moratorium) :	15 years	
Repayment Frequency :	8 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	11.09.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	KOLDAM	5,00,00,000.00
	PAKRI BARWADIH CNS	80,00,00,000.00
	TALAIPALI COAL MINE	15,00,00,000.00
Total Allocated Amount		1,00,00,00,000.00

पवन देव जमता/PAWAN DEV JAMTA
उप महाप्रबंधक (वित्त)/
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000591 **T00001** **D0001**

Unsecured Loan From IDFC Bank-IV		
Source of Loan :	IDFC Bank-IV	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	3,00,00,00,000	
Date of Drawal	28.02.2018	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	7.80%	
Margin, If Floating Interest :		
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	12-Feb-18	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	12-Feb-25	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A	
Project Code	Project Name	Amount
	BARH-I	50,00,00,000.00
	GADARWARA	50,00,00,000.00
	NORTH KARANPURA	40,00,00,000.00
	TELANGANA	40,00,00,000.00
	PAKRI BARWADIH CMS	1,20,00,00,000
Total Allocated Amount		**3,00,00,00,000**

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वित्त)
Deputy General Manager (Financial)
एनटीपीसी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000271 **T00001** **D00010**

Unsecured Loan From Indian Overseas Bank -III		
Source of Loan :	ICB-III	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	1,00,00,00,000	
Date of Drawal	01.02.2014	
Interest Type :	FLOATING	
Fixed Interest Rate :	D000010 - 10.25%	
Base Rate, If Floating Interest	0.00%	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	19.09.2011	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	16 Half Year Instalment	
Repayment Type :	AVG	
First Repayment Date :	19.09.2015	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	BARH-II	40,00,00,000.00
	PAKRI BARWADIH CMP	60,00,00,000.00
Total Allocated Amount		**1,00,00,00,000.00**

पवन देव जामटा/PAWAN DEV JAMTA

Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000511 **T00001** **D00001**

Unsecured Loan From Bank of Karnataka Bank		
Source of Loan :	**Jammu & Kashmir Bank-IV**	
Currency :	INR	
Amount of Loan :	7,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of Drawl	31.03.2017	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	7.85%	
Margin, If Floating Interest :		
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	Nil	
Moratorium effective from :	31.03.2017	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	31.03.2021	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-I	2,10,00,00,000.00
	BONGAIGAON	62,00,00,000.00
	KUDGI	35,00,00,000.00
	MOUDA-II	36,00,00,000.00
	SOLAPUR	40,00,00,000.00
	TAPOVAN VISHNUGAD	46,00,00,000.00
	SIMHADRI-II	52,00,00,000.00
	PAKRI BARWADIH COAL MINE	19,00,00,000.00
Total Allocated Amount		**5,00,00,00,000.00**

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वित्तीय विकास)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
SOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000501 **T00001**

Unsecured Loan From Bank of Karnataka Bank		
Source of Loan :	Karnataka Bank-II	
Currency :	INR	
Amount of Loan :	5,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of Drawal	28.03.2017	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	7.70%	
Margin, If Floating Interest :		
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	Nil	
Moratorium effective from :	28.03.2017	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9f Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	28.03.2021	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-I	93,75,00,000.00
	BARH-II	1,31,25,00,000.00
	BONGAIGAON	17,85,71,427.00
	KORBA-III	36,78,57,143.00
	LARA-I	9,37,50,000.00
	PAKRI BARWADIH	53,75,00,000.00
	RIHAND-III	45,98,21,428.00
	SOLAPUR	46,87,50,000.00
	VINDHYACHAL-IV	35,71,42,855.00
	SIMHADRI-II	28,66,07,147.00
Total Allocated Amount		5,00,00,00,000.00

PAWAN DEV JAMTA
Dep., General Manager (Commercial)
NTPC LIMITED

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5070000011 **T00001** **D00022**

Unsecured Loan From PFC-V		
Source of Loan :	PFC-V	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	4,00,00,00,000	
Date of Drawl	22.11.2010	
Interest Type :	Fixed with Reset after every 3 Years	
Fixed Interest Rate :	----------	
Base Rate, if Floating Interest	D00022-8.44%	
Margin, If Floating Interest :	D00022 - 0.45%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	26.12.2008	
Repayment Period (Inc Moratorium) :	16 Years	
Repayment Frequency :	48 Quarterly Instalments	
Repayment Type :	FIFO	
First Repayment Date :	15.07.2013	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	KAHALGAON II	20,00,00,000.00
	KOLDAM	10,00,00,000.00
	FARAKKA III	25,00,00,000.00
	NCTPP-DADRI-II	10,00,00,000.00
	SIMHADRI-II	10,00,00,000.00
	BONGAIGAON	20,00,00,000.00
	BARH-II	55,00,00,000.00
	MAUDA	40,00,00,000.00
	VINDHYACHAL IV	20,00,00,000.00
	RIHAND-III	35,00,00,000.00
	TALCHER-II	30,00,00,000.00
	RIHAND-II	15,00,00,000.00
	VINDHYACHAL III	50,00,00,000.00
	UNCHAHAR-III	20,00,00,000.00
	PAKRI BARWADIH	40,00,00,000.00
Total Allocated Amount		**4,00,00,00,000.00**

DGM (C) SHRI PAWAN DEV JAMTA
(In Appointed Capacity)
Dy. GM (C) / Dadri / NTPC Ltd.
Sector-24, Noida-201301

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5070000011 **T00001** **D00032**

Unsecured Loan From PFC-V		
Source of Loan :	PFC-V	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of Drawl	15.12.2011	
Interest Type :	Floating	
Fixed Interest Rate :	————	
Base Rate, If Floating Interest	D00032 - 9.58%	
Margin, If Floating Interest :	D00032 - 0.45%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	26.12.2008	
Repayment Period (inc Moratorium) :	16 Years	
Repayment Frequency :	48 Quarterly Instalments	
Repayment Type :	FIFO	
First Repayment Date :	15.07.2013	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	SIMHADRI-II	82,00,00,000.00
	VINDHYACHAL-IV	50,00,00,000.00
	PAKRI BARWADIH	73,00,00,000.00
	FARAKKA-III	42,00,00,000.00
	NCTPP-II	37,00,00,000.00
	TALCHER STPP-II	34,00,00,000.00
	TAPOVAN VISHNUGAD	48,00,00,000.00
	KOLDAM	97,00,00,000.00
	BADARPUR R&M	30,00,00,000.00
	RIHAND R&M	7,00,00,000.00
Total Allocated Amount		**5,00,00,00,000.00**

पवन देव जमता/PAWAN DEV JAMTA
[illegible]
Dep. General Manager (Commercial)
[illegible] / NTPC LIMITED
[illegible] Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5070000011 **T00001** **D00038**

Unsecured Loan From PFC-V		
Source of Loan :	PFC-V	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	4,50,00,00,000	
Date of Drawl	29.03.2012	
Interest Type :	Floating	
Fixed Interest Rate :	————	
Base Rate, If Floating Interest	D00038 - 9.62%	
Margin, If Floating Interest :	D00038 - 0.45%	
Are there any Caps/ Floor :	YIN	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	26.12.2008	
Repayment Period (Inc Moratorium) :	16 Years	
Repayment Frequency :	48 Quarterly Instalments	
Repayment Type :	FIFO	
First Repayment Date :	15.07.2013	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BIHAND-III	1,40,00,00,000.00
	[redacted]	35,00,00,000.00
	SIPAT-I	30,00,00,000.00
	SIMHADRI-II	1,15,00,00,000.00
	FARAKKA-III	45,00,00,000.00
	BARH-II	20,00,00,000.00
	BONGAIGAON	65,00,00,000.00
Total Allocated Amount		**4,50,00,00,000.00**

पवन देव जस्टा/PAWAN DEV JASTA
महाप्रबंधक (वाणिज्यिक)
General Manager (Commercial)
एनटीपीसी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000141 **T00001** **D00005**

Unsecured Loan From State Bank of India - VI		
Source of Loan :	**State Bank of India - VI**	
Currency :	INR	
Amount of Loan :	15,75,00,00,000	
Total Drawn amount :	2,25,00,00,000	
Date of Drawl	11.12.2010	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	D00005- 7.6%	
Margin, If Floating Interest :	D00005- 1.90%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	14.05.2009	
Repayment Period (Inc Moratorium) :	10 Years	
Repayment Frequency :	14 Half Yearly	
Repayment Type :	AVG	
First Repayment Date :	30.09.2012	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A	
Project Code	Project Name	Amount
	BONGAIGAON	25,00,00,000.00
	BARH-II	35,00,00,000.00
	MAUDA	25,00,00,000.00
	PAKRI BARWADIH	40,00,00,000.00
	KORBA-III	20,00,00,000.00
	SIPAT-II	10,00,00,000.00
	KOLDAM	10,00,00,000.00
	SIMHADRI-II	20,00,00,000.00
	VINDHYACHAL IV	15,00,00,000.00
	RIHAND-III	25,00,00,000.00
Total Allocated Amount		**2,25,00,00,000.00**

पवन देव जमाल/PAWAN DEV JAMTA
Deputy General Manager (Corporate Affairs)
एन टी पी सी लिमिटेड/NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000442 **T00001** **D0008**

Unsecured Loan From SBI-VIII		
Source of Loan :	SBI-VIII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Interest Type :	Floating	
Fixed Interest Rate :	----------	
Base Rate, If Floating Interest	D0008-9.30%	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	21.01.2015	
Repayment Period (Inc Moratorium) :	9 Years	
Repayment Frequency :	5 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.01.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	

Project Code	Project Name	Amount
	BARH-I	54,00,00,000
	TAPOVAN VISHNUGAD	13,00,00,000
	BONGAIGAON	23,00,00,000
	BARH-II	22,00,00,000
	KUDGI-I	81,00,00,000
	MOUDA-II	25,00,00,000
	SOLAPUR	35,00,00,000
	VINDHYACHAL-V	13,00,00,000
	LARA-I	85,00,00,000
	GADARWARA	49,00,00,000
	UNCHAHAR-IV	10,00,00,000
	NORTH KARANPURA	8,00,00,000
	DARLIPALLI	34,00,00,000
	TANDA-II	28,00,00,000
	PAKRI BARWADIH	12,00,00,000
	RIHAND-III	10,00,00,000
Total Allocated Amount		**5,00,00,00,000**

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्य)
Dep. / General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form II

TRANCHE NO

BP NO 5050000442 **T00001** **D00011**

Unsecured Loan From SBI-VIII		
Source of Loan :	SBI-VIII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	3,00,00,00,000	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	D00011-9.30%	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	21.01.2015	
Repayment Period (Inc Moratorium) :	9 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.01.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	BARH-I	31,00,00,000
	BONGAIGOAN	30,00,00,000
	DARLIPALLI	16,00,00,000
	GADARWARA	72,00,00,000
	KHARGONE	5,00,00,000
	LARA-I	33,00,00,000
	MOUDA-II	28,00,00,000
	NORTH KARANPURA	8,00,00,000
	TANDA-II	15,00,00,000
	TAPOVAN VISHNUGARH	21,00,00,000
	UNCHAHAR-IV	7,00,00,000
	PAKRI BARWADIH	4,00,00,000
	CHATTI BARIATU	9,00,00,000
	SIMHADRI-II	12,00,00,000
	RAMAGUNDAM R&M	11,00,00,000
Total Allocated Amount		**3,00,00,00,000**

PAWAN DEV JAMTA

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000442 **T00001** **D00012**

Unsecured Loan From SBI-VIII		
Source of Loan :	SBI-VIII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	4,00,00,00,000	
Interest Type :	Floating	
Fixed Interest Rate :	————	
Base Rate, if Floating Interest	D00012-9.30%	
Margin, if Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	21.01.2015	
Repayment Period (Inc Moratorium) :	9 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.01.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	BARH-I	25,00,00,000
	BONGAIGAON	32,00,00,000
	DARLIPALLI	22,00,00,000
	GADARWARA	56,00,00,000
	KUDGI	30,00,00,000
	LARA	23,00,00,000
	MOUDA-II	44,00,00,000
	NORTH KARANPURA	17,00,00,000
	PAKRI BARWADIH	11,00,00,000
	SOLAPUR	62,00,00,000
	TANDA-II	15,00,00,000
	TAPOVAN VISHNUGAD	18,00,00,000
	UNCHAHAR-IV	12,00,00,000
	VINDHYACHAL-V	13,00,00,000
	MOUDA-I	20,00,00,000
Total Allocated Amount		**4,00,00,00,000**

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Dep. / General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000442	T00001	D00014
Unsecured Loan From SBI-VIII		
Source of Loan :	SBI-VIII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	3,00,00,00,000	
Interest Type :	Floating	
Fixed Interest Rate :	----------	
Base Rate, If Floating Interest	D00014-9.30%	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	21.01.2015	
Repayment Period (Inc Moratorium) :	9 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.01.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	

Project Code	Project Name	Amount
	BARH-I	9,00,00,000
	BONGAIGOAN	22,00,00,000
	DARLIPALLI	35,00,00,000
	KUDGI-I	67,00,00,000
	LARA-I	77,00,00,000
	PAKRI BARWADIH	16,00,00,000
	TANDA-II	25,00,00,000
	TAPOVAN VISHNUGARH	12,00,00,000
	UNCHAHAR STPP IV	10,00,00,000
	KHARGONE	17,00,00,000
	VINDHYACHAL-V	10,00,00,000
Total Allocated Amount		**3,00,00,00,000.00**

पवन देव जगता/PAWAN DEV JANTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000442 **T00001** **D00017**

Unsecured Loan From SBI-VIII		
Source of Loan :	**SBI-VIII**	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	50,00,00,000	
Date of Drawl	19.04.2016	
Interest Type :	Floating	
Fixed Interest Rate :	————	
Base Rate, If Floating Interest	D00017-9.30%	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	21.01.2015	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.01.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	PAKRI BARWADIH CMP	32,00,00,000
	CHATTI BARIATU	18,00,00,000
Total Allocated Amount		**50,00,00,000**

पवन देव जामता/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन.टी.पी.सी. लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000442 **T00001** **D00024**

Unsecured Loan From SBI-VIII		
Source of Loan :	SBI-VIII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	11,50,00,00,000	
Date of Drawl	14.02.2017	
Interest Type :	Floating	
Fixed Interest Rate :	————	
Base Rate, If Floating Interest	D00024-8.0%	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	21.01.2015	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.01.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	BARH-I	3,00,00,00,000
	BONGAIGAON	34,28,57,142
	FARAKKA III	14,28,57,141
	GADARWARA	2,50,00,00,000
	KOLDAM	92,85,71,427
	KORBA-III	2,85,71,428
	KUDGI	1,00,00,00,000
	MOUDA-I	40,71,42,856
	NCTPP-II	15,71,42,855
	NORTH KARANPURA	1,00,00,00,000
	REHAND-III	32,14,28,570
	SIMHADRI-II	53,28,57,141
	SIPAT-I	21,42,85,711
	SIPAT-II	5,71,42,856
	TAPOVAN VISHNUGAD	50,00,00,000
	VINDHYACHAL IV	32,42,85,714
	PAKRI BARWADIH	4,28,57,159
Total Allocated Amount		**11,50,00,00,000**

Deputy General Manager/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000551 **T00001** **D00002**

Unsecured Loan From SBI-X		
Source of Loan :	SBI-X	
Currency :	INR	
Amount of Loan :	40,00,00,00,000	
Total Drawn amount :	2,00,00,00,000	
Date of Drawal:	25.09.2017	
Interest Type :	Floating	
Fixed Interest Rate :	———	
Base Rate, If Floating Interest	D0002-7.9%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	25.09.2017	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	01.10.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	SOLAPUR	20,00,00,000
	LARA	20,00,00,000
	DARLIPALLI	25,00,00,000
	TANDA-II	35,00,00,000
	KHARGONE	30,00,00,000
	TELANGANA	15,00,00,000
	BARH - II	10,00,00,000
	KOLDAM	20,00,00,000
	PAKRI BARWADIH CMB	20,00,00,000
Total Allocated Amount		**2,00,00,00,000.00**

पवन देव जानटा/PAWAN DEV JANTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000551 **T00001** **D00008**

Unsecured Loan From SBI-X		
Source of Loan :	**SBI-X**	
Currency :	INR	
Amount of Loan :	40,00,00,00,000	
Total Drawn amount :	6,00,00,00,000	
Date of Drawal:	31.03.2018	
Interest Type :	Floating	
Fixed Interest Rate :	————	
Base Rate, If Floating Interest	D0008-7.65%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	25.09.2017	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	01.10.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	BARH-I	1,63,00,00,000
	TAPOVAN VISHNUGARH	47,00,00,000
	BONGAIGAON	39,00,00,000
	KUDGI	2,05,00,00,000
	LARA	5,00,00,000
	SOLAPUR	1,23,00,00,000
	PAKRI BARWADIH CMB	18,00,00,000
Total Allocated Amount		**5,00,00,00,000.00**

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वित्तीय विकास)
Deputy General Manager (Dev Financial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000551 T00001 D00009

Unsecured Loan From SBI-X		
Source of Loan :	SBI-X	
Currency :	INR	
Amount of Loan :	40,00,00,00,000	
Total Drawn amount :	3,00,00,00,000	
Date of Drawal :	01.05.2018	
Interest Type :	Floating	
Fixed Interest Rate :	————	
Base Rate, If Floating Interest :	D0002-7.85%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment :	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	25.09.2017	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	01.10.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	PAKRI BARWADIH CMD	70,00,00,000
	CHATTI BARIATU CMB	15,00,00,000
	DULANGA COAL MINE	25,00,00,000
	TALAIPALI COAL MINE	1,90,00,00,000
Total Allocated Amount		**3,00,00,00,000.00**

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Dep. / Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000551 **T00001** **D00010**

Unsecured Loan From SBI-X		
Source of Loan :	SBI-X	
Currency :	INR	
Amount of Loan :	40,00,00,00,000	
Total Drawn amount :	3,00,00,00,000	
Date of Drawal:	29.05.2018	
Interest Type :	Floating	
Fixed Interest Rate :	————	
Base Rate, If Floating Interest	D0010-7.85%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	25.09.2017	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	01.10.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	LARA	1,05,00,00,000
	DARLIPALLI	50,00,00,000
	PAKRI BARWADIH CMB	65,00,00,000
	KHARGONE	80,00,00,000
Total Allocated Amount		**3,00,00,00,000.00**

पवन देव जमरा/PAWAN DEV JAMTA
उप महाप्रबंधक (वित्त/Fin.)
Dep. / General Manager (Commercial)
एनटीपीसी/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000291 T00001

Unsecured Loan From Vijaya Bank-V		
Source of Loan :	Vijaya Bank - V	
Currency :	INR	
Amount of Loan :	3,50,00,00,000	
Total Drawn amount :	3,50,00,00,000	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	D00001- 10.65%/D00002- 10.65%/D00003 to 5- 10.45%/D00006-8- 10.20%/	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	29.03.2012	
Repayment Period (Inc Moratorium) :	10 Years	
Repayment Frequency :	14 Half Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	29.09.2015	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-II	25,00,00,000
	SOLAPUR	50,00,00,000
	VINDHAYACHAL-V	50,00,00,000
	VINDHYACHAL-IV	55,00,00,000
	PAKRI BARWADIH	45,00,00,000
	LARA-I	10,00,00,000
	PAKRI BARWADIH	50,00,00,000
	PAKRI BARWADIH	50,00,00,000
	VINDHYACHAL-IV	15,00,00,000
Total Allocated Amount		**3,50,00,00,000**

पवन देव उपाध्याय/PAWAN DEV UPADHYAY
उप महाप्रबंधक (वित्त-II)
Deputy General Manager (Finance-II)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000711 **T00001** **O00001**

Unsecured Loan From Punjab National Bank-IV		
Source of Loan :	Punjab National Bank-III	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	20,00,00,00,000	
Date of Drawl	01.01.2019	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, if Floating Interest	6.60%	
Margin, if Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	01.01.2019	
Repayment Period (inc Moratorium) :	12 Years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	01.02.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	UNCHAHAR STPP IV	65,00,00,000.00
	TANDA-II	85,00,00,000.00
	NCTPP-II	36,43,00,000.00
	DADRI GAS R&M	56,00,00,000.00
	KORBA-III	15,00,00,000.00
	SIPAT-II	17,14,00,000.00
	FARAKKA-III	8,57,00,000.00
	KAHALGAON-II	17,14,00,000.00
	BARH-I	1,08,57,00,000.00
	BARH-II	8,00,00,000.00
	NORTH KARANPURA	1,09,00,00,000.00
	KOLDAM	6,43,00,000.00
	TAPOVAN VISHNUGAD	28,57,00,000.00
	PAKKI DRIWADIH	42,00,00,000.00
	CHATTI BARIATU	1,00,00,00,000.00
	CHATTI BARIATU	10,00,00,000.00
	BONGAIGAON	36,43,00,000.00
	KUDGI	60,00,00,000.00
	LARA	1,23,00,00,000.00
	GADARWARA	2,27,72,00,000.00
	DARLIPALLI	2,73,00,00,000.00
	KHARSONE	50,00,00,000.00
	ANANTPUR SOLAR	17,00,00,000.00
	TALAIPALI COAL MINE	5,00,00,00,000.00
Total Allocated Amount		**20,00,00,00,000.00**

पवन देव जमरा/PAWAN DEV JAMTA
उप महाप्रबंधक (वित्त)
Deputy General Manager (Finance)
बी. आर. पी. (इंडिया) लिमिटेड
B.R.P. (INDIA) LIMITED
SCO-48A, Sector-24, Noida

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000571 T00001 D00005

Unsecured Loan From Punjab National Bank-III		
Source of Loan :	Punjab National Bank-III	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of Drawl	26.09.2018	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	8.05%	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	26.09.2018	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	01.02.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-I	1,10,00,00,000.00
	BONGAIGAON	1,00,00,00,000.00
	KUDGI-I	35,00,00,000.00
	LARA-I	15,00,00,000.00
	RAKRI BARWADIH	35,00,00,000.00
	SOLAPUR	40,00,00,000.00
	TAPOVAN VISHNUGARH	40,00,00,000.00
	TANDA II	1,25,00,00,000.00
Total Allocated Amount		**5,00,00,00,000.00**

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्य)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
SCC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5550000531 **T00001** **D0002**

Unsecured Loan From SBI-IX		
Source of Loan :	SBI-IX	
Currency :	INR	
Amount of Loan :	36,00,00,00,000	
Total Drawn amount :	2,00,00,00,000	
Date of Drawal :	04.05.2017	
Interest Type :	Floating	
Fixed Interest Rate :	----------	
Base Rate, if Floating Interest :	7.80%	
Margin, if Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment :	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	04.05.2017	
Repayment Period (inc Moratorium) :	12 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.03.2021	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	BARH-I	54,00,00,000
	TAPOVAN VISHNUGARH	16,00,00,000
	BONGAIGAON	20,00,00,000
	LARA	22,00,00,000
	GADARWARA	12,00,00,000
	TELANGANA	16,00,00,000
	KOLDAM	10,00,00,000
	PAKRI BARWADIH CSM	50,00,00,000
Total Allocated Amount		2,00,00,00,000.00

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 8050000631 | TB0001 | D0009

Unsecured Loan From SBI-4X		
Source of Loan :	SBI-4X	
Currency :	INR	
Amount of Loan :	30,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of Drawal :	20.06.2018	
Interest Type :	Floating	
Fixed Interest Rate :	----------	
Base Rate, If Floating Interest :	7.80%	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Int. Payment :	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	20.06.2018	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.03.2021	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	BARH-I	90,00,00,000
	TAPOVAN VISHNUGARH	20,00,00,000
	BONGAIGAON	8,00,00,000
	TANDA II	12,00,00,000
	RAMMAM	20,00,00,000
	TELANGANA	45,00,00,000
	MAUDA-II	1,20,00,00,000
	BHADLA SOALR PV	35,00,00,000
	ROJMAL WIND	5,00,00,000
	PAKRI BARWADIH CMS	1,20,00,00,000
	CHATTI BARIATU CMP	9,00,00,000
	DULANGA COAL MINE	13,00,00,000
	TALAIPALI COAL MINE	13,00,00,000
Total Allocated Amount		**5,00,00,00,000.00**

पवन देव जामटा/PAWAN DEV JAMTA
एन.टी.पी.सी. लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form II

TRANCHE NO

BP NO 5050000831 **T00681** **D0009**

Unsecured Loan From SBI-IX		
Source of Loan :	SBI-IX	
Currency :	INR	
Amount of Loan :	30,00,00,00,000	
Total Drawn amount :	2,00,00,00,000	
Date of Drawal :	27.06.2018	
Interest Type :	Floating	
Fixed Interest Rate :	----------	
Base Rate, if Floating Interest :	7.80%	
Margin, if Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment :	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	2 Years	
Moratorium effective from :	27.06.2018	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	6 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.03.2021	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	BARH-I	25,00,00,000
	TANDA II	30,00,00,000
	TELANGANA	30,00,00,000
	RAMAGUNDAM R&M	25,00,00,000
	TALCHER STPP R&M	40,00,00,000
	KAHALGAON R&M	20,00,00,000
	PAKRI BARWADIH CMR	30,00,00,000
Total Allocated Amount		**2,00,00,00,000.00**

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

SP NO 8060050631 T00001 D0008

Unsecured Loan From SBI-IX		
Source of Loan :	SBI-IX	
Currency :	INR	
Amount of Loan :	30,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of Drawal :	20.06.2018	
Interest Type :	Floating	
Fixed Interest Rate :	----------	
Base Rate, if Floating Interest :	7.85%	
Margin, if Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment :	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	20.06.2018	
Repayment Period (inc Moratorium) :	12 Years	
Repayment Frequency :	9 Yearly installments	
Repayment Type :	AVG	
First Repayment Date :	31.03.2021	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	BARH-I	60,00,00,000
	TAPOVAN VISHNUGARH	20,00,00,000
	BONGAIGAON	8,00,00,000
	TANDA II	12,00,00,000
	RAMMAM	20,00,00,000
	TELANGANA	45,00,00,000
	MAUDA-II	1,20,00,00,000
	BHADLA SOALR PV	35,00,00,000
	ROJAMI WIND	5,00,00,000
	PAKRI BARWADIH CMP	1,20,00,00,000
	CHATTI BARIATU CMP	8,00,00,000
	DULANGA COAL MINE	13,00,00,000
	TALAIPALI COAL MINE	13,00,00,000
Total Allocated Amount		**5,00,00,00,000.00**

पवन देव जाणता/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Dy. General Manager (Commercial)
एन.टी.पी.सी. लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loan

Form II

TRANCHE NO

BP NO 50500001041 **T00001** **D00001**

Unsecured Loan From Bank Of India-IV

Source of Loan :	**Bank Of India-IV**	
Currency :	INR	
Amount of Loan :	22000000000	
Total Drawn amount :	16,00,00,00,000	
Date of Drawal :	07.12.2020	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	6.00%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	07.12.2020	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	Yearly	
Repayment Type :	AVG	
First Repayment Date :	07.12.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :		
Project Code	**Project Name**	**Amount**
	UNCHAHAR SOLAR PV	16,00,00,000
	VINDHYACHAL-V	60,00,00,000
	TALCHER SOLAR PV	20,00,00,000
	BARH I	20,00,00,000
	BARH-II	88,00,00,000
	KOLDAM	80,00,00,000
	PAKRI BARWADIH CMB	2,00,00,00,000
	SOLAPUR	1,72,00,00,000
	KUDGI	2,72,00,00,000
	LARA	1,36,00,00,000
	GADARWARA	1,46,00,00,000
	RAJGARH SOLAR PV	64,00,00,000
	LATA TAPOVAN	36,00,00,000
	DARLIPALLI	1,60,00,00,000
	BILHAUR SOLAR 140MW	60,00,00,000
	BILHAUR SOLAR 85MW	16,00,00,000
	SAMBHU KI BHURI-II-TOKALA	54,00,00,000
Total Allocated Amount		**16,00,00,00,000**

पवन देव जामता/PAWAN DEV JAMTA

Statement Giving Details of Project Financed through a Combination of loan

Form II

TRANCHE NO

BP NO 5050000791 **T00001** **D00001**

Unsecured Loan From HDFC Bank Ltd. VII		
Source of Loan :	HDFC Bank Ltd. VII	
Currency :	INR	
Amount of Loan :	25,00,00,00,000	
Total Drawn amount :	3,85,00,00,000	
Date of drawl	11.06.2019	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	8.40%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	11.06.2019	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	11.06.2026	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BONGAIGAON	1,21,00,00,000
	LARA	28,00,00,000
	TAPOVAN VISHNUGAD	15,00,00,000
	BARH-I	99,00,00,000
	GADARWARA	20,00,00,000
	CHATTI BARIATU CMB	18,00,00,000
	DARLIPALLI	20,00,00,000
	PAKRI BARWADIH	35,00,00,000
	TALAIPALI CMB	30,00,00,000
Total Allocated Amount		**3,85,00,00,000**

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वित्त)
Deputy General Manager (Finance)
एन.टी.पी.सी. लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Form 8

TRANCHE NO

BP NO 5050000791 T00001 D00005

Unsecured Loan From HDFC Bank Ltd. VII		
Source of Loan :	HDFC Bank Ltd. VII	
Currency :	INR	
Amount of Loan :	25,00,00,00,000	
Total Drawn amount :	3,00,00,00,000	
Date of drawl	11.02.2020	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	7.50%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	11.02.2020	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	11.06.2026	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-I	30,00,00,000
	TAPOVAN VISHNUGAD	20,00,00,000
	NORTH KARANPURA	20,00,00,000
	DARLIPALLI	35,00,00,000
	RAMMAM	20,00,00,000
	BARAUNI-II	1,30,00,00,000
	PAKRI BARWADIH	15,00,00,000
	TALAIPALI CMB	30,00,00,000
Total Allocated Amount		3,00,00,00,000

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC A-4A, Sector-24, Noida-201301 (U.P.)

Statement Giving Details of Project Financed through a Combination of loa

Form 8

TRANCHE NO

BP NO 5050000965 **T00001** **D00001**

Unsecured Loan From Bank Of India-II

Source of Loan :	**Bank Of India-III**	
Currency :	INR	
Amount of Loan :	10000000000	
Total Drawn amount :	4,00,00,00,000	
Date of Drawal :	18.06.2020	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	7.00%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	18.06.2020 (Loan prepaid on 07.12.2020)	
Repayment Period (inc Moratorium) :	12 Years	
Repayment Frequency :	Yearly	
Repayment Type :	AVG	
First Repayment Date :	18.06.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :		
Project Code	**Project Name**	**Amount**
	BARH I	20,00,00,000
	BILHAUR SOLAR 140MW	60,00,00,000
	GADARWARA	50,00,00,000
	BILHAUR SOLAR 85MW	16,00,00,000
	TOKALA SOLAR-300MW	54,00,00,000
	PAKRI BARWADIH CMB	2,00,00,00,000
Total Allocated Amount		**4,00,00,00,000**

पवन देव जागता/PAWAN DEV JANTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Form 8

TRANCHE NO

BP NO 3058991368	TH001	080802
Unsecured Loan From HDFC Bank Ltd. XI		
Source of Loan	HDFC Bank Ltd. XI	
Currency	INR	
Amount of Loan	20,00,00,00,000	
Total Drawn amount	10,00,00,00,000	
Date of draw	01.08.2023	
Interest Type	Floating	
Fixed Interest Rate		
Base Rate, if Floating Interest	7.74%	
Margin, if Floating Interest	NIL	
Are there any Caps/ Floor	Y/N	
Frequency of Int. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor		
Moratorium Period	3 Years	
Moratorium effective from	14.07.2020	
Repayment Period (ex Moratorium)	10 Years	
Repayment Frequency	12 Yearly Instalment	
Repayment Type	AVG	
First Repayment Date	14.11.2027	
Base Exchange Rate	RUPEE	
Date of Base Exchange Rate	N.A.	
Project Code	Project Name	Amount
	BARH-I	1,51,14,00,000.00
	PKOR BARKDIH CMB	1,77,00,00,000.00
	NOKH SOLAR PLOT-III (1)MW	28,05,00,000.00
	SINGRAULI-I & II FGD	95,71,70,000.00
	KERAKOT	71,00,00,000.00
	NOKH SOLAR PLOT-II (24)MW	72,00,00,000.00
	RAMAGUNDAM-I & II FGD	70,05,00,000.00
	TALAIPALI COAL MINE	85,00,50,000.00
	TSTPS STAGE-II & I FGD	17,83,00,000.00
	FARAKKA-I, II & III FGD	35,75,00,000.00
	VINDHYACHAL-I &II FGD	23,71,00,000.00
	TTPS III (2X660MW)	10,00,00,000.00
	DULANGA COAL MINE	10,00,00,000.00
	RAMAGUNDAM-I & II FGD	9,89,00,000.00
	NOKH SOLAR PLOT-I (24)MW	9,00,00,000.00
	VINDHYACHAL-III &IV FGD	8,35,00,000.00
	SIMHADRI-II & I FGD	7,48,00,000.00
	RIHAND- II & III FGD	5,93,00,000.00
	KHAMGONE FGD	5,86,50,000.00
	KORBA-I, II & III FGD	5,14,00,000.00
	SIPAT-I FGD	5,07,00,000.00
	KUDGI FGD	4,74,00,000.00
	DARLIPALLI FGD	4,50,50,000.00
	LARA FGD	3,57,00,000.00
	MOUDA-II FGD	3,14,00,000.00
	SADAVAARA FGD	3,08,00,000.00
	NORTH KARANPURA FGD	2,42,50,000.00
	MOUDA-I FGD	2,20,30,000.00
	BARH-II FGD	2,19,00,000.00
	SOLAPUR FGD	2,17,00,000.00
	TANDA II FGD	2,01,00,000.00
	RAMAGUNDAM-III FGD	33,00,000.00
Total Allocated Amount		33,00,00,00,000.00

पवन देव जमटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वित्त-II)
Dy. General Manager (Finance-II)
एन टी पी सी/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Form-8

TRANCHE NO

BP NO 8050001441 | 700001 | 000002

Unsecured Loan From HDFC Bank Ltd. XII		
Source of Loan	HDFC Bank Ltd. XII	
Currency	INR	
Amount of Loan	50,00,00,00,000	
Total Drawn amount	10,00,00,00,000	
Date of draw	01-Dec-23	
Interest Type	Floating	
Fixed Interest Rate		
Base Rate, If Floating Interest	7.85%	
Margin, If Floating Interest	NIL	
Are there any Capital Floor	Y/N	
Frequency of Int. Payment	MONTHLY	
If Above is yes, specify Capital Floor		
Moratorium Period	2 Years	
Moratorium effective from	13.10.2025	
Repayment Period (inc Moratorium)	15 Years	
Repayment Frequency	12 Yearly Instalment	
Repayment Type	AVG	
First Repayment Date	13.10.2027	
Base Exchange Rate	RUPEE	
Date of Base Exchange Rate	N.A.	
Project Code	Project Name	Amount
	BARH-I (3X 660MW)	2,13,00,00,000.00
	TAPOVAN VISHNUGARH (4X130	86,50,00,000.00
	NORTH KARANPURA (3X660)	47,00,00,000.00
	RAMMAM (3X40MW)	30,00,00,000.00
	LARA, STAGE-II, 2X800 MW	75,00,00,000.00
	GANDHAR 20MW	1,00,00,000.00
	SOLAPUR SOLAR (20MW)	3,00,00,000.00
	RIHAND SOLAR (20MW)	2,00,00,000.00
	ANTA SOLAR (90MW)	6,00,00,000.00
	NOKH SOLAR PLOT-I (245MW)	15,00,00,000.00
	NOKH SOLAR PLOT-II (245MW	24,00,00,000.00
	NOKH SOLAR PLOT-III (245M	29,00,00,000.00
	LARA-I	70,00,00,000.00
	KHARGONE	43,00,00,000.00
	GADARWARA	30,00,00,000.00
	DARLIPALLI	50,00,00,000.00
	TANDA-II	30,00,00,000.00
	BARAUNI-II (2X250MW)	20,00,00,000.00
	NABINAGAR	20,00,00,000.00
	CHATTI BARIATU CMB	20,00,00,000.00
	TALAIPALI COAL MINE	22,00,00,000.00
	KERANDARI	14,00,00,000.00
	PAKRI BARWADIH CMB	50,00,00,000.00
	RIHAND-I FGD	5,00,00,000.00
	RIHAND-II & III FGD	5,00,00,000.00
	UNCHAHAR-I, II & III FGD	4,00,00,000.00
	VINDHYACHAL-I &II FGD	6,50,00,000.00
	VINDHYACHAL-III &IV FGD	5,50,00,000.00
	SIPAT-II FGD	4,00,00,000.00
	KORBA-I, II & III FGD	20,50,00,000.00
	BARH-II FGD	2,00,00,000.00
	RAMAGUNDAM-I & II FGD	20,00,00,000.00
	RAMAGUNDAM-III FGD	4,00,00,000.00
	MOUDA-I FGD	2,00,00,000.00
	MOUDA-II FGD	1,00,00,000.00
	SOLAPUR-FGD	1,00,00,000.00
	KUDGI-FGD	2,00,00,000.00
	SINGRAULI-I & II FGD	21,00,00,000.00
	FARAKKA-I, II & III FGD	5,00,00,000.00
	KAHALGAON-I & II FGD	17,00,00,000.00
	TSTPS STAGE-II & I FGD	6,00,00,000.00
Total Allocated Amount		50,00,00,00,000.00

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Dy. General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Form 8

TRANCHE NO

BP NO 5050061441 T00001 D00004

Unsecured Loan From HDFC Bank Ltd. XX		
Source of Loan	HDFC Bank Ltd. XX	
Currency	INR	
Amount of Loan	50,00,00,00,000	
Total Drawn amount	8,75,00,00,000	
Date of drawl	01-Jan-24	
Interest Type	Floating	
Fixed Interest Rate		
Base Rate, if Floating Interest	7.60%	
Margin, if Floating Interest	NIL	
Are there any Capsl Floor	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Capsl Floor		
Moratorium Period	3 Years	
Moratorium effective from	13.10.2023	
Repayment Period (inc Moratorium)	15 Years	
Repayment Frequency	12 Yearly Installment	
Repayment Type	AVG	
First Repayment Date	13.10.2027	
Base Exchange Rate	RUPEE	
Date of Base Exchange Rate	N.A	
Project Code	Project Name	Amount
	BARH-I (3X660MW)	2,40,00,00,000.00
	TAPOVAN VISHNUGARH (4X130	32,00,00,000.00
	NORTH KARANPURA (3X660)	1,47,00,00,000.00
	BAMNIAM (3X40MW)	8,00,00,000.00
	TELANGANA (2X800MW)	40,00,00,000.00
	GANDHAR 20MW	1,00,00,000.00
	RIHAND SOLAR (20MW)	1,00,00,000.00
	ANTA SOLAR (80MW)	2,00,00,000.00
	NOKH SOLAR PLOT-II (245MW	22,00,00,000.00
	NOKH SOLAR PLOT-III (245M	36,00,00,000.00
	LAKA	32,00,00,000.00
	GADARWARA	9,00,00,000.00
	DARLIPALLI	25,00,00,000.00
	TANDA-II	20,00,00,000.00
	BARAUNI-II (2X250MW)	9,00,00,000.00
	NABINAGAR	9,00,00,000.00
	CHATTI BARIATU CMB	8,50,00,000.00
	TALAIPALI COAL MINE	20,00,00,000.00
	KERANDARI	1,50,00,000.00
	[illegible]	[illegible]
	DULANGA COAL MINE	3,00,00,000.00
	RIHAND-I FGD	11,50,00,000.00
	RIHAND- II & III FGD	1,00,00,000.00
	VINDHYACHAL-I & II FGD	1,00,00,000.00
	VINDHYACHAL-III & IV FGD	1,00,00,000.00
	SIPAT-I (3X660 MW) FGD	1,00,00,000.00
	SIPAT-II FGD	8,50,00,000.00
	KORBA-I,II,III FGD	26,00,00,000.00
	BARH-II FGD	1,00,00,000.00
	RAMAGUNDAM-I & II FGD	10,00,00,000.00
	RAMAGUNDAM-III FGD	1,50,00,000.00
	SOLAPUR FGD	33,00,00,000.00
	KUDGI FGD	4,00,00,000.00
	SINGRAULI-I & II FGD	6,00,00,000.00
	FARAKKA-I, II & III FGD	15,50,00,000.00
	KAHALGAON-I & II FGD	18,00,00,000.00
	TSTPS STAGE-II & I FGD	11,50,00,000.00
Total Allocated Amount		8,75,00,00,000.00

पवन देव जामटा/PAWAN DEV JAMTA

उप महाप्रबंधक (कॉर्पोरेशन)

Dy. General Manager (Corporation)

एन टी पी सी लिमिटेड, NTPC LIMITED

EOC, A-8A, Sector-24, Noida-201301 (U.P.)

tatement Giving Details of Project Financed through a Combination of loa

Form 8

TRANCHE NO

BP NO 50500001042 **T00001** D00006

Unsecured Loan From ICICI-VII		
Source of Loan :	ICICI-VII	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	4,95,08,00,000	
Date of Drawal	3-30-23	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	8.10%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	01.07.2021	
Repayment Period (Inc Moratorium) :	15 years	
Repayment Frequency :	12 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	30.12.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	**Project Name**	**Amount**
	Barh-I	1400800000
	North Karanpura	3550000000
	Fakri Barwadih CMS	1000000000
Total Allocated Amount		**4,95,08,00,000.00**

पवन देव जमुटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वित्त)
Dep. / General Manager (Finance)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

FORM-8	Details of Allocation of Corporate Bonds to various projects
Name of the Company	NTPC LIMITED
Name of the Integrated Mine	PAKRI BARWADIH
Commercial Operation Date (COD)	31.03.2018

(Amount in Rs. Lakhs)

Particulars								
Source of Loan - Bonds Series	34	37	38	40	41	44	46	47
Currency	INR	INR	INR	INR	INR	INR	INR	INR
Amount of Loan sanctioned (in Lakhs)	10,30,000.00	50,000.00	30,000.00	1,00,000.00	1,37,250.00	70,000.00	3,92,500.00	4,90,000.00
Amount of Gross Loan drawn upto COD (in Lakhs)	10,30,000.00	50,000.00	30,000.00	1,00,000.00	1,37,250.00	70,000.00	3,92,500.00	4,90,000.00
Interest Type	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Fixed Interest Rate, if applicable	8.40%	8.10%	8.10%	8.50%	8.10%	7.40%	7.37%	8.20%
Base Rate, if Floating Interest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Margin, if Floating Interest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Are Bonds Secured?	No	No	No	No	No	No	No	No
If above is yes specify capacities	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Moratorium Period (in Years)	8	10	8	10	8	10	10	10
Moratorium effective from	25-03-2015	15-12-2015	21-12-2015	08-05-2018	27-06-2018	07-11-2018	14-12-2018	15-01-2019
Repayment Period	Installments Due on 25/03/2023, 25/03/2024 & 25/03/2025	Bullet Repayment	Bullet Repayment	Bullet Repayment	Installments Due on 27/06/2021, 27/06/2026 & 27/06/2031	Bullet Repayment	Bullet Repayment	Bullet Repayment
Repayment effective from	25-03-2023	15-12-2025	21-12-2025	08-05-2028	27-06-2021	07-11-2021	14-12-2021	15-01-2025
Repayment Frequency	Installments Due on 25/03/2023, 25/03/2024 & 25/03/2025	Bullet Repayment	Bullet Repayment	Bullet Repayment	Installments Due on 27/06/2021, 27/06/2026 & 27/06/2031	Bullet Repayment	Bullet Repayment	Bullet Repayment
Repayment Installment (in Lakhs)	Installments 1st - 206,136.61 2nd - 412,273.22 3rd - 412,273.22	50,000.00	30,000.00	1,00,000.00	Installments 1st - 35,750.00 2nd - 35,750.00 3rd - 35,750.00	70,000.00	3,92,500.00	4,90,000.00
Base Exchange Rate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Door to Door Maturity (in Years)	10	10	8	10	15	15	15	10

Name of the Projects	34	37	38	40	41	44	46	47
Aventour Solar	3,600.00			19,100.00	4,300.00			-
Aurelya R & M		1,400.00						-
Bhadrapur RBM	2,300.00							-
Bhel I	71,865.00	9,900.00	4,000.00	14,800.00	4,850.00	9,300.00	45,300.00	60,867.14
Bhel 4	60,500.00		2,400.00	1,700.00	500.00		2,000.00	1,000.00
Bhadla Solar				11,200.00	5,200.00			-
Bangalore	94,000.00	300.00	600.00	5,200.00	2,200.00	5,800.00	12,700.00	38,810.64
Chandi Garhi CMB	8,100.00			1,500.00			300.00	-
Chandi Gaz R & M	800.00							-
Dadupali	49,200.00		10,500.00		3,000.00	7,500.00	26,400.00	-
Dulanga CMB							25,400.00	-
Farakka II	10,300.00							-
Farakka R & M	2,000.00							-
Gadarwara	81,200.00	2,100.00		6,300.00	7,500.00	2,000.00	29,100.00	29,900.00
Gandhar R AM	4,300.00	800.00	2,000.00					-

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वित्तिकेन्द्र)
Dep. - General Manager (Con-mercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Kahalgaon II Phase I							909.50	-
Kahalgaon II Phase II	1,800.00							-
Kawas R & M	1,400.00							-
Khargone	40,300.00	3,000.00		500.00	2,200.00	3,300.00	24,704.00	39,696.00
Kholas R & M	2,000.00	990.00						-
Kolaire	23,125.00	3,720.00					300.00	8,596.21
Korba III	6,210.00	500.00					900.00	2,130.84
Korba III & M	4,400.00							-
Kudgi	1,33,300.00			5,800.00	13,500.00	8,000.00	20,300.00	10,000.00
Lara I	53,300.00	13,745.00		2,100.00	11,000.00	8,900.00	20,900.00	47,812.00
Lara Expansion	1,800.00							-
Mauda	21,900.00		2,700.00				3,200.00	715.00
Mauda II	45,800.00				4,100.00	3,900.00	11,000.00	-
Mendhasal Solar				3,400.00	5,400.00			1,200.00
NCTPP II	11,000.00	990.00						1,801.00
NCTPP R & M	3,700.00		1,000.00					-
North Karanpura	72,400.00			7,500.00	5,000.00	1,900.00	32,500.00	20,900.00
Patratu Sarkanath CCPP	38,600.00	990.00	1,000.00	3,300.00	2,000.00	4,300.00	6,900.00	21,021.00
Ramagundam I & II R & M	2,400.00		1,000.00		900.00			-
Rammam	3,100.00						2,300.00	2,500.00
Rihand III	29,300.00	990.00					3,200.00	4,200.00
Rihand R & M	2,800.00							-
Simhadri II	26,400.00	1,000.00		2,000.00			2,300.00	4,804.00
Simhadri R & M	900.00							-
Vallurchal Hydro	1,900.00							500.00
Singrauli R & M	1,900.00							-
Vindhyachal Solar	4,800.00							-
Solar I	20,500.00	1,400.00					1,700.00	-
Solar II								-
Solapur	70,300.00		1,200.00	2,400.00	7,200.00	5,100.00	25,300.00	29,200.00
Talcher II	13,800.00	700.00			1,200.00		900.00	-
Talcher III	9,900.00	490.00		2,000.00	4,300.00	3,900.00	21,500.00	12,500.00
Talcher II & M					400.00			-
Talcher Kaniyapal	26,400.00		900.00	4,600.00	2,600.00	3,500.00	8,400.00	18,202.00
Telangana					11,700.00		5,600.00	-
TSTPP R & M	1,900.00	1,000.00						-
TTPS R & M	1,500.00							-
Vallurchal III	17,400.00	4,800.00		1,900.00	5,200.00	3,900.00	14,700.00	2,500.00
Vallurchal R & M	2,400.00							-
Vindhyachal IV	17,200.00	500.00					3,700.00	8,804.00
Vindhyachal R & M	1,200.00	900.00		1,700.00				-
Vindhyachal V	30,900.00	2,200.00		2,600.00	800.00	700.00	3,900.00	5,500.00
VALANTH I COAL MINE								4,900.00
Total	10,10,982.00	92,000.00	38,000.00	1,96,200.00	1,87,200.00	75,900.00	3,92,900.00	4,98,296.00

*Moratorium period has been taken as the period from Deemed Date of Allotment till the date of first Redemption.

1. Source of loan means the agency from whom the loan has been taken such as WB, ADB, NSIB, PNB, SBI, ICICI, IFC, PFC etc.
2. Currency refers to currency of loan such as US$, DM, Yen,Indian Rupee etc.
3. Details are to be submitted as on 31.03.2004 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various units, details in the Form is to be given separately for all the units in the same form.
6. Interest type means whether the interest is fixed or floating.
7. Base rate means the base rate PLR, LIBOR etc. over which the margin is to be added. Applicable base rate on different dates from the date of draw may also be enclosed.
8. Margin means the points over and above the floating rate.
9. At times cap/floor are put at which the floating rates are frozen. In such a condition please specify the limits.
10. Moratorium period refers to the period during which loan servicing liability is not required.
11. Repayment period means the repayment of loan such as 7 years, 10 years, 20 years etc.
12. Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.
13. Where there is more than one drawal/repayment for a loan, the date & amount of each drawal/repayment and its allocation may also be given separately.
14. If the repayment/ instalment amount and repayment date can not be worked out from the data furnished above, the repayment schedule is to be furnished separately.
15. In case of Foreign loan,date of each drawal & repayment alongwith exchange rate at that date may be given.
16. Base exchange rate means the exchange rate prevailing as on 31.03.2004 for existing assets and as on COD for the remaining assets.

पवन देव जमटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Dep.y. General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Source of Loan	JPY Equ. $400 Million Drawl II	JPY Equ. $400 Million Drawl III	JPY Equ. $400 Million Drawl IV
Currency	JPY	JPY	JPY
Amount of loan sanctioned	13,89,20,00,000	14,77,60,00,000	14,25,65,00,000
Amount of Gross Loan	13,89,20,00,000	14,77,60,00,000	14,25,65,00,000
Interest Type	Floating	Floating	Floating
Fixed Interest Rate, if applicable	-	-	-
Base Rate, if floating interest*	6M Compounded TONA	6M Compounded TONA	6M Compounded TONA
Margin, if floating interest rate	1.20000%	1.20000%	1.20000%
Are there any Caps / Floor	No	No	No
If above is Yes, specify Caps / Floor	-	-	-
Moratorium Period	4	4	4
Moratorium effective from	31-Aug-2023	31-Aug-2023	31-Aug-2023
Repayment period	Yearly	Yearly	Yearly
Repayment effective from	31-Aug-2027	31-Aug-2027	31-Aug-2027
Repayment frequency	Seven times	Seven times	Seven times
Repayment installment	1,98,45,71,429	2,11,08,57,143	2,03,66,42,857
	-	-	-
Base Exchange Rate -	0.5887	0.5601	0.5788
Are foreign currency loan hedged	-	-	-
If above is Yes, specify details			

Pakri Barwadih CMB	15.28%	0.24%	8.85%

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
Sector-24, Noida-201301 (U.P.)

Form 8- Domestic Bonds- Details of Allocation of corporate loans to various projects

Particulars	58
Series	58
Source of Loan1	BONDS
Currency2	INR
Amount of Loan sanctioned	30000
Interest Type6	Fixed
Fixed Interest Rate, if applicable	8.10%
Base Rate, if Floating Interest7	N/A
Margin, if Floating Interest8	N/A
Are there any Caps/Floor9	No
If above is yes,specify caps/floor	N/A
Moratorium Period10	5
Moratorium effective from #	31-12-2015
Repayment Period11	Bullet Repayment
Repayment effective from	31-12-2020
Repayment Frequency12	Bullet Repayment
Repayment Instalment13,14	30000
Base Exchange Rate16	N/A
Door to Door Maturity	5

Paid Bankrash CMB	1,000

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वित्त निवेशक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-7A, Sector-24, Noida-201301 (U.P.)

Form 8- Domestic Bonds- Details of Allocation of corporate loans to various projects

Particulars	32	33	53	61	64	66	67	72	74	78
	54	57	60	61	64	66	67	72	74	78
Name of Loan	SCHOOL	SCHOOL	SCHOOL	SCHOOL	SCHOOL	SCHOOL	SCHOOL	SCHOOL	SCHOOL	SCHOOL
Lenders	Null	Null	Null	Null	Null	Null	Null	Null	Null	Null
Amount of loan sanctioned	[illegible]	[illegible]	[illegible]	187500	75000	150000	400000	4,00,000	3,88,600	2,00,000
Interest Type	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Fixed Interest Rate, if applicable	8.40%	8.10%	8.00%	8.15%	7.68%	7.41%	8.35%	5.40%	6.67%	7.44%
Base Rate, if Floating Interest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Margin, if Floating Interest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Are there any Caps/Floor	No	No	No	No	No	No	No	No	No	No
If Yes, give details	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Moratorium Period	0	0	0	0	0	0	0	0	15 Years and 1 day	10
Moratorium effective from	28-03-2013	10-10-2013	30-09-2015	27-09-2016	01-11-2016	14-12-2016	15-01-2018	15-10-2020	20-04-2021	25-09-2022
Repayment Period	Installments Due on	Bullet Repayment	Bullet Repayment	Installments Due on	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment
Commencement effective from	28-09-2023	10-10-2023	30-09-2025	27-09-2026	01-11-2026	14-12-2026	15-01-2028	15-10-2025	21-04-2036	25-09-2032
Repayment Frequency	Installments Due on 25/09/2023, 25/03/2024 & 25/09/2024	Bullet Repayment	Bullet Repayment	Installments Due on 27/09/2023, 27/03/2024 & 27/09/2024	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment
Repayment instalment	Installments for 206,136.91 Due - 410,270.53 Due - 410,170.55	Bullet	Bullet	Installments for 18,750.00 Due - 35,750.00 Due - 35,750.00	Bullet	Bullet	Bullet	4,00,000	3,88,600	2,00,000
Most Exchange Rate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tenor in Days/ Months	10	10	10	10	10	10	10	0	15 Years and 1 day	10
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

पवन देव जमता/PAWAN DEV JAMTA
उप महाप्रबंधक (कंपनी सचिव)
Dep. / General Manager (Company Secretary)
एन टी पी सी लिमिटेड / NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Part-II
Form-9

Year-wise Variance of Individual Capitalisation after Grid of Commercial Operation vis-à-vis Admitted Cost and Capacity

Name of the Petitioner: NTPC Ltd
Name of the Integrated Mine (Pit): Kerandih
Cut-off Date: 31.03.2019

Financial Year: 2018-19

Amount in Rs. Lakhs

Sr. No.	Head of Work / Equipment	(+) % Variation (+/-)						Regulation under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrued basis	Add: ACE (+/-)	Accrued basis as per Col.(2)+(3)	Un-discharged Liability included in column 3	Cash basis (3)-(4)+(5)	IDC included in col. 3			
1	2	3	3(a)	3(b) = 3+3(a)	4	5 = 3(b) - 4 + 5	6	7	8	9
1	Land	21,541.96	35,471.29	57,013.25	61,959.64	946.69	-	35.3 (iii)	Expenditure claimed against undischarged liabilities for payment of structures, trees & assets situated over land acquired on pugmarks basis as per Chapter IV (Cl. No. 4.1 & 5.2) of Mining plan (dated 07.02.2014). Hon'ble Commission may be pleased to allow the capitalization.	
2	Buildings & Structures	3,021.5		3,021.53	161.18	2,964.31	704.99	19.8 (iii)	It is submitted that chapter VIII (A.2.1.vi) Mining plan (dated 07.02.2014) provides that office buildings and associated buildings, equipment (welded etc. shall be provided to serve mine support functions such as engineering, mine supervision & managers' mine administrative etc. The expenditure & the construction of buildings along with associated facilities is as per the mine plan. Hon'ble Commission may be pleased to allow the capitalization.	
3	Plant&Machinery	8,345.84		8,345.84	560.00	7,997.73	2,297.07	19.8 (iii)	It is submitted that chapter VIII (B), Sr. no. 6 under SC-I of Mining plan (dated 07.02.2014) provides that main working schedule of SC-I, SC-II & SC-III shall be continued & Third Semi-pith coal block. The expenditure on outside construction of substation for offsite and overhead electrification of mine as per mine plan. Hon'ble Commission may be pleased to allow the capitalization.	
4	Mine Development Expenditure & Construction of Roads & Drains	6,238.85		6,238.85	14.89	6,223.96	675.91	19.8 (iii)	Expenditure towards construction of water and drains for sustained operation of mines as per approved Mining Plan (dated 07.02.2014) (Chapter no. VIII A) under Chapter VIII (Sub-Cl.) Commission may be pleased to allow the capitalization.	

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वित्त/Finance)
Dep. / General Manager (Commercial)
(टी डी ओ की ओर से/NTPC LIMITED
EOC, A-8A, Sector-24, Noida 201301 (U.P.)

Name of the Petitioner: NTPC Ltd.
Name of the Integrated Power Project: Barmadih
CoD: 01.04.2019

Financial Year 2019-20

Amount in Rs Lakhs

Sr. No.	Details of Work / Equipment	Actual basis	Unit wise Info.	Actual/Claim as per (1) to (3)	Un-discharged Liability included in column 3	Total	IDC included in col. 5	Regulation under which claimed	Justification	Admitted Cost by the Commission, if any
1	2	3	3a	3B = 3+3a	4	5 = 3B - 4	6	7	8	9
5	Other Development expenditure Construction of Road Infrastructure	1,116.41		1,116.41	-	1,116.41	1,111.21	24.8.1(iv)	Later of Award placed on M/S/ and Date of Commissioning of Unit No.2(U.) is to be paid towards development stage expenditure the erection of Road infrastructure facilities as per approved plan. Central participation is towards the facilities put to use in the current FY. Hon'ble Commission may be pleased to allow the capitalization.	
6	Procurement of Fire Trucks	12.22		12.22	0.44	11.78	-	24.8.1(iv)	It is submitted that the expenditure has been incurred towards procurement of fire trucks as per approved plan. Hon'ble Commission may be pleased to allow the capitalization.	
7	Adjustment of Other Development Expenses	(422.93)		(422.93)	-	(422.93)	-	24.8.1(iv)	Adjustment of other development expenses pertaining to period prior to COD of Units.	
8	Water Supply, Drainage and Sewerage	14.47		14.47	1.24	13.23	-	24.8.1(iv)	It is submitted that Chapter VII (Sr. No. 1) under S.O.(...) of Working plan (dated 07.07.2016) provides for Water Supply & Sewerage System. The expenditure is for construction / procurement works related to the Water Supply & Sewerage along with associated facilities as per the Working Plan. Hon'ble Commission may be pleased to allow the capitalization.	
9	Supply and Installation of Weigh Bridge	24.84		24.84	10.00	14.84	-	24.8.1(iv)	It is submitted that the expenditure has been incurred towards procurement of weigh bridge as per approved plan. Hon'ble Commission may be pleased to allow the capitalization.	
10	Plantation Development Works	5.56		5.56	-	5.56	-	24.8.1(iv)	It is submitted that the expenditure has been incurred towards plantation development works as per Chapter VIII (Sr. No. 17 under S.O.(...) of Working plan dated 07.07.2016). Hon'ble Commission may be pleased to allow the capitalization.	

पवन देव जमोटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्य)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Part-II
Form-9

Year-wise Variation of Additional Capitalisation after date of Commercial operation as to additive Fresh or Net Capacity

Name of the Petitioner: NTPC Ltd
Name of the Integrated Mine Pahal Barwadih
Date: 01.04.2019

Financial Year: 2019-20

Amount in Rs. Lakhs

S. No.	Head of Work / Equipment	ACE Claimed (Actual)						Regulation under which Claimed	Justification	Admitted Cost by the Commission (Gross)
		Actual Cost	Add AC (Adj)	Actual Cost as per RCA-AP	Un-discharged Liability included in column 2	Cash Cost	DOC included in col. 3			
1	2	3	3A	3B = 3+3A	4	5 = 3B - 4	6	7	8	9
11	NBOAs			-						
11	Furniture and Fixtures	103.36		103.36	-	103.36	-			
12	Office Equipment other than Computer	33.86		33.86	2.38	30.48	-			
13	Hospital Equipment	0.04		0.04	-	0.04	-	10 % (Ex)	Expenditure incurred towards protection of NBOAs/Furniture/Office Equipments/Hospital Equipment/Communication Equipment/Computers & Software/Lab Equipment as envisaged in Chapter VIII (Information Facilities proposed and their treatment of Mining plan dated 10.07.2019). Hon'ble Commission may be pleased to allow the capitalisation.	
14	EDP, WP machines & SAS/TAS equipment & Communication Equipment	37.21		37.21	4.00	33.32	-			
15	Computers and Software	34.34		34.34	-	34.34	-			
16	Laboratory equipment	2.88		2.88	0.15	2.73	-			
	Sub Total	213.88		213.88	7.02	206.88	-			
	Total	46,598.74	39,072.28	85,823.02	42,429.82	38,393.80	4,221.98			
18	Liability Discharge	23,249.14		23,249.14	-	23,249.14		10 % (Ex)	Discharge of Deferred against the expenditure incurred as provided as per the Mining Plan/Investment Approval	
	Grand Total	71,498.04	39,071.98	1,08,962.18	42,429.82	44,533.04	4,221.98			

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
ECC, A-8A, Sector-34, Noida-201301 (U.P.)

Part-IV
Form-II

Year-wise Statement of Additional Capitalisation after date of Commercial operation up to achieving Peak-rated Capacity

Name of the Petitioner: NTPC Ltd
Name of the Integrated Mine: Patel Barwadih
Cell: 01.10.2019

Financial Year 2020-21

Amount in Rs Lakhs

S. No.	Head of Work / Equipment	ACE Claimed Cutoff						Regulation under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis	Sub 45 Adj.	Accrual basis as per IGAAP	Co-discharged Liability included in column 3	Cash basis	IDC included in col. 5			
1	2	3	3A	3B = 3+3A	4	(5 = 3 - 4)	6	7	8	9
1	Land	25,475.86	-	25,475.86	6,148.96	19,220.90	-	36.5 (1a)	Expenditure incurred for progressive land acquisition as per mine plan. Expenditure incurred towards payment of insurance, taxes & costs attached over land acquired as per Chapter IX (Sr. No. 9.1 to 9.3) of Mining plan (dated 07.03.2018) and payments disbursed as per the R&R assets approved by District Administration. Hon'ble Commission may be pleased to allow the capitalisation.	
2	Electrical Installation Works	20.00	-	20.00	1.75	18.14	-	36.5 (1a)	It is submitted that the expenditure has been incurred towards electrical installation works as per chapter VIII (Sr. No. 17 under 8.5.1) of Mining plan (dated 07.03.2018). Hon'ble Commission may be pleased to allow the capitalisation.	
3	MBOAs		-	-				36.5 (1b)	Expenditure incurred towards procurement of MBOAs/Furniture/Office Equipment/Hospital Equipment/Communication Equipment/Computer & Software/Call Equipment as envisaged in Chapter VIII (Infrastructure facilities planned and their location) of Mining plan (dated 07.03.2018). Hon'ble Commission may be pleased to allow the capitalisation.	
(i)	Furniture and Fixtures	102.12	-	102.12	0.40	102.12	-			
(ii)	Office Equipments other than Computers	115.20	-	115.20	37.54	77.66	-			
(iii)	Hospital Equipment	1.72	-	1.72	-	1.72	-			
(iv)	EDP, WP machines & SATCOM equipment & Communication Equipment	42.80	-	42.80	1.05	41.75	-			
(v)	Computers and Software	43.05	-	43.05	18.97	43.08	-			
(vi)	Laboratory equipment	19.22	-	19.22	4.59	9.74	-			
	Sub Total	336.41	-	336.41	58.34	278.07	-			
	Total of PBCMP	25,833.22	-	25,833.22	6,209.08	19,624.15				
4	Liability Discharge	8,083.79	-	8,083.79	-	8,083.79		36.5 (1a)	Discharge of liability against the expenditure incurred on activities as per the Mining Plan/Government Approval.	
	Grand Total	33,919.01	-	33,919.01	6,209.08	27,709.93				

(Petitioner)

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Name of the Petitioner: NTPC Ltd
Name of the Integrated Mine: Pakri Barwadih
Coal/Lignite: COAL

Financial Year 2021-22

Sl. No	Head of Work / Equipment	Amount (Rs. in Lakh)						Regularised under which clause	Justification	Justification if any for the Commission, if any
		Amount Made	Exd. Amt. (Rs)	Amount liable as per (3) to (7)	Pre-discharged Liability included in column 5	Cash Basis	IDC included in col. 8			
1	2	3	3a	4(b)=3-3a-4a	5	6(=3-4-5)	6	7	8	9
1	Land	16,768.19	-	16,768.19	10,294.28	6,473.91	-	30.3 (iv)	Expenditure incurred for progressive land acquisition as per mine plan. Expenditure incurred towards payment of structures, trees & assets classified only land acquired as per Chapter III (Sr. No. 3.1 to 3.3) of Mining plan (dated 07.12.2018) and payment disbursed as per the RR&R matrix approved by Mining Administration. Hon'ble Commission may be pleased to allow the capitalization.	
2	Buildings & Structures	10.00	-	10.00	7.95	(3).19	-	30.3 (iv)	As a schedule of the chapter VIII (8.2.1) of Mining plan (dated 07.12.2018) provides that colliery buildings and associated buildings, equipment classified any shall be provided to solve mine support. Therefore costs on engineering, construction of temporary, other administrative etc. The expenditure is for construction of buildings being in the associated facilities as per the mine plan. Hon'ble Commission may be pleased to allow the capitalization.	
3	Infrastructure	2,276.19	-	2,276.19	2,166.28	2,208.17	(2,208.28)	30.3 (iv)	It is scheduled that chapter VIII (Sr. No. 3.1 under 8.2.1) of Mining plan (dated 07.12.2018) provides that roads involving relocation of CHP/CHP, ETP, shall be constructed as Pakri Barwadih coal block. The expenditure is towards construction of collieries for efficient and economic operation of mine as per mine plan. Hon'ble Commission may be pleased to allow the capitalization.	
4	Mine Development expenditure (Roads, Drains, Culverts and Excavation)	2,276.28	-	2,276.28	2.28	2,273.91	2.28	30.3 (iv)	Expenditure towards construction of roads and drains for sustained operations of mines are approved Mining Plan (dated 07.12.2018) [Clause no. 7.1 & 7.2 of section VIII, Chapter VIII]. Hon'ble Commission may be pleased to allow the capitalization.	
5	Mine Development expenditure (Construction of Road, infrastructure)	14,747.14	-	14,747.14	3,962.91	10,784.23	3,962.91	30.3 (iv)	Lease of 2.0 mtpa granted vide MOEF clearance for expansion of the Mine is in its initial/mid development stage expenditure for creation of Road infrastructure facilities as per mine plan. Process capitalization is carried out as per the Policy and norms for the various FY. Hon'ble Commission may be pleased to allow the capitalization.	
6	Coal Handling Plant	10,264.42	-	10,264.42	6,992.84	10,222.34	10,992.84	30.3 (iv)	Pakri Barwadih Mining Plan (dated 07.12.2018) of Pakri Barwadih mine envisages that the coal shall be transported from mine to Bankola Railway siding through mine owners mining pit. Coastal capitalization is on such coal transportation of coal from Pakri Barwadih Coal Block mine to railway siding at Bankola Railway siding. The expenditure has been completed/Phase-II - up to FY 20-21 is Rs 2,294.05 lakh. Hon'ble Commission may be pleased to allow the capitalization.	

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Year-wise Treatment of Additional Capitalisation after date of Commercial operation vis-a-vis the Project Cost Capacity

Form-IV
Page-4

Name of the Petitioner: NTPC Ltd
Name of the Generating Station/ Unit/ Transmission System:
Ref: CC No. /2019

Financial Year 2021-22

Amount in Rs Lakhs

Sl. No.	Head of Work / Equipment	Actual Cost	Add-Ex adj.	Amount admitted as per IEA Act/ Regulations	Un-discharged Liability included in column 3	Cash basis	IDC included in col. 3	Regulation under which claimed	Justification	Admitted Cost for the Capitalisation (if any)
1	2	3	3a	3B = 3-3a	4	5 = 3-4	6	7	8	9
1	Water Supply, Drainage and Sewerage		-		-		-	26.3.1(a)	It is submitted that vide CERC, No. 7/ Amend-1/ 2014 of Mining plan dated 07.02.2014, pending for Water Supply & Sewerage System. The expenditure is for maintenance / procurement works related to the Water Supply & Sewerage along with associated facilities as per the Mining Plan. Hon'ble Commission may be pleased to allow the capitalization.	
2	Supply and Installation of Weigh Bridge		-					26.3.1(a)	It is submitted that the expenditure has been incurred towards procurement of weigh bridge as per latest plan. Hon'ble Commission may be pleased to allow the capitalization.	
3	Road and Miscellaneous Works		-				-	26.3.1(a)	It is submitted that the expenditure has been incurred towards construction / maintenance as per Mining Plan. Hon'ble Commission may be pleased to allow the capitalization.	
4	Construction of Chain Link Fencing and Gate Pole at Kusum (Nearly)		-				-	26.3.1(a)	It is submitted that the expenditure has been incurred towards installation of Chain link fencing as per latest plan/Forest Clearance (Chapter VII, Section 2.1.2.1) The Chain link is essential to protect existing cross section and existing area of mining for safe operation of mining. Hon'ble Commission may be pleased to allow the capitalization.	
5a	Buildings		-					26.3.1(b)	Expenditure incurred towards procurement of Vehicle Conveyor Office Equipment/Shanty Equipment/Canteen Kitchen Equipment/Computers & Software/Lab Equipment is envisaged in Chapter VII (Maintenance Activities) proposed and their maintenance Mining plan dated 07.02.2014. Hon'ble Commission may be pleased to allow the capitalization.	
5b	Computers and Software		-				-			
5c	Laboratory equipment		-				-			
5d	Vehicles		-				-			
5e	Office Equipment (Non Safety Equipment)		-				-			
5f	Canteen Equipment		-				-			
5g	CCTV, IP Telephone & Tab & DSS equipment & Communication Equipment		-				-			
Total			-							
6	Liability Discharge		-		-			26.3.1(a)	Discharge of liabilities towards the expenditure incurred on execution of Mine Plan/Mining Plan/Re-vised Proposal.	
Grand Total			-							

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
ECC, A-8A, Sector 24, Noida-201301 (U.P.)

[illegible]

Financial Year 2022-23

S. No.	Head of Plant / Equipment	ACC Claimed Amount						Regulation under which claimed	Justification	Adopted Cost in the Commission, if any
		Annual Loan	Net (Rs. Lakh)	Annual loan as per ICAAP	Non-discharged liability included in column 3	Cash Loss	Bill included in col. 3			
1	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	Land	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	
2	Land (Amount of Liability)	[illegible]	-	[illegible]	[illegible]	-	-		[illegible]	
3	Buildings & Structures	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	
4	Industries	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
5	Plant Development Expenditure (Road, Drain, Culvert and Chambers)	[illegible]	-	[illegible]	-	[illegible]	-	[illegible]	[illegible]	
6	Plant Development Expenditure (Mining, Ship Side Area and Pipeline Mining Provisions)	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

[illegible]

Name of the Petitioner: NTPC Ltd.
Name of the Assigned Work: Patch Kamaldih
Code no: as_build

Financial Year 2021-22

Amount in Rs. Crores

Sr. No.	Head of Work / Equipment	As Admitted	Cost (if Any)	Amount Incurred	Un-discharged Liability included in column 5	Total Assets	Gross Fixed Assets	Regulation under which claimed	Justification	Assigned Cost by the Commission, if any
1	2	3(a)	3(b)	3(c) = 3(a)-3(b)	4	5	6	7	8	9
I	Coal Handling Plant	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Approved Petition (Tariff Order dated 07.01.2019) of Patch Kamaldih Power Limited (PKPL) has not yet been finalized. Hence, the matter is being taken up with the Hon'ble Commission for approval of the same. The Petitioner has been compelled to file the present petition as the Hon'ble Commission has not yet finalized the matter. The Petitioner has been compelled to file the present petition as the Hon'ble Commission has not yet finalized the matter.	
II	Electrical Installation Works	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	It is submitted that the expenditure has been incurred towards electrical installation works as per Original FR/Dte. No. 17 under ALC-I of Mining plan dated 01.01.2015. Hon'ble Commission may be pleased to allow the capitalization.	
A	Assets									
(i)	Furniture and Fixtures	[illegible]	-	[illegible]	-	[illegible]	-	[illegible]	Expenditure incurred towards procurement of Office Furniture/Office Equipment/Supplies/ Equipment/Compensation Equipment/Computer & Software/Lab Equipment as envisaged in Chapter VIII (Infrastructure facilities planned) and Non Investment of Mining plan dated 01.01.2015. Hon'ble Commission may be pleased to allow the capitalization.	
(ii)	Office Equipments other than Computer	[illegible]	-	[illegible]	[illegible]	[illegible]	-			
(iii)	Computer Equipments	[illegible]	-	[illegible]	[illegible]	[illegible]	-			
(iv)	DG/D. WP machines of [illegible] as against R. Commercial Mine Equipment	[illegible]	-	[illegible]	[illegible]	[illegible]	-			
(v)	Underground Drifting	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]			
(vi)	Collieries overburden	[illegible]	-	[illegible]	-	[illegible]	-			
	Sub Total	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]			
(i)	Change of Ownership	-	-	-	-	-	-			
(ii)	Premium and Rebate	[illegible]	-	[illegible]	-	[illegible]	-	[illegible]	Through Escrow of NCDs (to support as Regulation 25(c))	
(iii)	Office Equipment other than Computer	[illegible]	-	[illegible]	-	[illegible]	-			
(iv)	Computer and Software	[illegible]	-	[illegible]	-	[illegible]	-			
	Sub Total	[illegible]	-	[illegible]	-	[illegible]	-			
	Total	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]			
III	Liability Financing	[illegible]	-	[illegible]		[illegible]		[illegible]	Discharge of liabilities against the normative loan(s) to be [illegible] as per the Mining Plan/Investment Approval.	
	Grand Total	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]			

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Name of the Petitioner: NTPC Ltd.
Name of the Generating Station / Unit/ Transmission System/ Transmission Line/ Sub-station/ Pooling Station/ Transmission System:
Control Period/ Tariff Period: 2019-24

Form-9

Year-wise Statement of Additional Capitalisation after date of Commercial operation up to cut-off date for Thermal and Hydro Generating Stations

Financial Year 2023-24

Current Year (2023-24)

S. No.	Head of Work / Equipment	Actual Cost	Add: Un-discharged Liabilities	Total Cost	Un-discharged Liabilities included in column 4	Total Cost	IDC Included in col. 7	Expenditure under Force Majeure	Justification	Admitted Cost for Tariff Calculation, if any
1	2	3	4	5 = 3+4	6	7 = 5 - 6	8	9	10	11
1	Land	71,119.64	-	71,119.64	-	71,119.64	-	Nil (Cr)	Expenditure incurred for progressive land acquisition as per cash plan. Expenditure incurred towards payment of land price, land & assets attached and land acquired as per Chapter IX, Sr. No. 9 (i.e.) (vi) of Tariff Policy was taken 01.02.2016 and amounts disallowed as per the R&R award approved by District Administration. Hon'ble Commission may be pleased to allow the capitalization.	
2	Buildings & Structures	613.48	-	677.64	13.24	664.40	-	Nil (Cr)	It is submitted that chapter VIII(A.2.1) of Tariff Regulations dated 07.01.2019 provides that office buildings and staff quarter buildings, equipment, weather etc. shall be provided to serve only support functions such as engineering, work supervision & managerial, time administrative etc. The expenditure is for construction of technology oriented facilities & as per the above, Hon'ble Commission may be pleased to allow the capitalization.	
3	Misc Development Expenditure: Road, Bridge, Culvert and Compound	2,252.04	-	2,252.04	69.79	2,256.83	-	Nil (Cr)	Expenditure towards construction of roads are likely to be executed / operation of plant as per approved Mining Plan (dated 01.01.2019) (Clause no. 12.4) & under Chapter XIII(A) Hon'ble Commission may be pleased to allow the capitalization.	
4	Misc Development Expenditure: Mining Fencing	224.56	-	224.56	-	224.56	-	Nil (Cr)	The proposed capitalization is towards construction of mining fencing as per approved mine plan. Hon'ble Commission may be pleased to allow the capitalization.	
5	Misc Development Expenditure: Drainage (Rly Line, Drain and Pipeline, Pumps, Pipelines)	914.34	-	1,082.34	220.84	1,041.84	-	Nil (Cr)	Clause No. 4.2.3 under Chapter IV of Approved Mining Plan (01.01.2019) mentions maintenance of surface exploitation by suggested covering of OB dump & infrastructure and besides exploitation beyond 500 m depth as external dump/ back up to prevent seepage. The expenditure is towards the further exploitation activities carried out in mines & same are likely to be capitalized during next tariff period i.e. 2024-29. Hon'ble Commission may be pleased to allow the capitalization.	
6	Coal Handling Plant	1,441.08	-	1,823.08	481.24	1,341.84	-	Nil (Cr)	Approved Mining Plan (dated 01.01.2019) of Pakri Barwadih mines envisages that the coal shall be transported from mine to Stacking, Reclaiming, sizing through mine conveyor system. The coal capitalization is towards the balance scope of Phase- II & III and Coal Evacuation Phase- II from existing mechanized mine i.e. OB-I & II to the mine the approved mining plan. Hon'ble Commission may be pleased to allow the capitalization. Construction of coal mine along with digital mining system from OB-I to railway siding is in progress and capitalized in the completed in FY 2019-20.	
7	Electrical Installation Works	241.24	-	246.61	56.57	190.77	-	Nil (Cr)	It is submitted that the expenditure has been incurred towards electrical installation works as per chapter VIII(A), Sr. 17 under 8.2.3 of Tariff Policy was issued 07.01.2019) Hon'ble Commission may be pleased to allow the capitalization.	

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement of Additional Expenditure after the 31st March but allowable as a deduction for Profit and Gains for

Name of the Petitioner: NTPC Ltd.
Name of the Generating Station: Tanda Thermal Power Station
Date: 01.04.2024

Financial Year 2023-24

Amount in Rs. Lakhs

S. No.	Head of Work / Equipment	Admitted Cost (A & E Allowed Formula)						Regulation under which Admitted	Justification	Submitted Cost by the Petitioner, if Less
		Admitted Cost	Add: IDC duly	Admitted Gross Cost (col. 3+4) of Form-7	Un-discharged Liability included in Admitted Cost	Cross check	IDC Deducted for col. 7			
1	2	3	3(a)	3(b) = 3+3(a)	4	5 = 3 + 3(a) - 4	6	7	8	9
A	Land Cost									
(a)	Freehold land	12.00	-	12.00	-	12.00	-			
(b)	Leasehold land	18.46	-	18.46	4.15	14.31	-			
(c)	Forest Clearance	17.94	-	17.94	1.08	16.86	-			
(d)	Compensation for Land							76 & 77(3)	Expenditure incurred towards acquisition of 600.0±5.0 acres of land (Plot No.1 to 4 in Sector-2 Extn.) by Uttar Pradesh Industrial Development Authority, Noida for setting up of Tanda TPP Extension Project and Rehabilitation & Resettlement (R&R) activities carried out in respect of affected families of Village Tanda Khurd and Tanda Jadid in the District of Ambedkar Nagar (U.P.). Further Commitment may be required to settle the claims/disputes.	
(e)	Compensation for Crops									
(f)	Compensation for Trees									
(g)	Rehabilitation & Resettlement									
	Sub-Total									
B	Infrastructure Works							76 & 77(3)	Expenditure towards Facilities existing out of Completion of Project of Rehabilitation & Resettlement (R&R) Colony, Tanda Township, Tanda Thermal Power Station and Tanda Township, Tanda Thermal Power Station. Further Commitment may be required to settle the claims/disputes.	
(a)	Plant Civil Works									
(b)	Township and Colony									
(c)	Other Expenditure (Rest Camp)									
(d)	Roads, Bridges & Culverts									
(e)	Railway Siding									
(f)	Miscellaneous Expenditure									
	Sub-Total									
	Total									
D	Discharge of liability							72 & 73(3)	Discharge of liability against the expenditure covered on accrual or pro-rata billing Plus Statutory payments.	
	Grand Total									

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Name of the Petitioner NTPC Ltd. Name of the Integrated Mine Pakri Barwadih	Financing of Additional Capitalisation	PART- IV FORM- III

Date of Commercial Operation 09.08.2009

(Amount in Rs Lakh)

	Actual					Admitted				
Financial Year (Starting from COD)	2019-20	2020-21	2021-22	2022-23	2023-24	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8	9	10	11
Amount capitalised in Work/ Equipment	Add cap is funded in 30:70 Equity ratio of 70:30									
Financing Details										
Loan-1										
Loan-2										
Loan-3 and so on										
Total Loan										
Equity										
Internal Resources										
Others (Pl. specify)										
Total										

Petitioner

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Calculation of Depreciation

Name of the Petitioner: NTPC Ltd

Name of the Assigned Hiller Pallet Manitoba

S. No.	Name of the Assets	Unit/Full Unit (if Any)	Gross Block as on 31.03.2019	Additions during the Year	Gross Block as on 31.03.2020	Depreciation Allowed for 2019-20	Additions during the Year	Gross Block as on 31.03.2021	Depreciation allowed for 2020-21	Additions during the Year	Gross Block as on 31.03.2022	Depreciation allowed for 2021-22	Additions during the Year	Gross Block as on 31.03.2023	Depreciation allowed for 2022-23	Additions during the Year	Gross Block as on 31.03.2024	Depreciation allowed for 2023-24
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Freehold Land		[illegible]	[illegible]	[illegible]	-	-	[illegible]	-	[illegible]	[illegible]	-	-	[illegible]	-	[illegible]	[illegible]	-
2	Leasehold Land	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	Coal Mining Land	[illegible]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Other Buildings	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	Temporary erections	[illegible]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Plant and machinery	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	Furniture and Fixtures	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	Other Office Equipment	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	Vehicles, including ambulance	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]
11	Electrical installations	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]
13	Weighing equipment	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	Laboratory and workshop equipment	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	Computer and Software	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	Other Intangible assets	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	TOTAL		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Weighted Average Rate of Depreciation %					[illegible]			[illegible]			[illegible]			[illegible]			[illegible]

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement of Depreciation

PART- IV
FORM- 12

Name of the Petitioner: NTPC Ltd

Name of the Integrated Mine: Pakri Barwadih

(Amount in Rs.Lakhs)

S. No.	Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1.	Opening Capital Cost		1,20,412.60	1,74,845.84	2,02,855.78	3,29,817.82	4,23,959.96
2.	Closing Capital Cost		1,74,845.84	2,02,855.78	3,29,817.82	4,23,959.96	4,71,313.02
3.	Average Capital Cost		1,47,629.20	1,88,850.81	2,66,336.80	3,76,888.89	4,47,636.49
4.	Freehold land		27,739.34	27,739.34	27,814.37	27,814.37	28,308.13
4A.	Assets having zero salvage value		28,986.35	39697.48	1,05,010.47	1,12,799.89	1,25,422.86
5.	Rate of depreciation		5.83%	5.83%	4.24%	4.23%	4.14%
6.	Depreciable value		1,22,663.47	1,36,984.27	2,31,389.98	3,17,331.74	4,03,784.71
7.	Balance useful life at the beginning of the period	Not Applicable	33	32	31	30	29
8.	Remaining depreciable value		1,22,663.47	1,31,666.09	2,09,777.16	3,15,344.12	3,62,978.27
9.	Depreciation (for the period)		5,728.18	6,615.23	11,271.79	17,049.66	20,354.02
10.	Depreciation (cumulative)		5,728.18	6,615.23	11,271.79	17,049.66	20,354.02
11.	Cumulative depreciation at the end of the period		5,728.18	12,343.41	23,615.20	40,664.86	61,018.88
12.	Less: Cumulative depreciation adjustment on account of de-capitalization		-			8.30	2.55
13.	Net Cumulative depreciation at the end of the period		5,728.18	12,343.41	23,607.22	40,656.55	61,016.33

(Petitioner)

पवन देव जमवाल/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Calculation of Weighted Average Rate of Interest on Actual Loans

PART-IV
FORM-13

Name of the Company NTPC LTD.
Name of the Coal Mine Pakri

(Amount Rs. in Lacs)

Sl. no.	Particulars	1.4.2009 to 31.03.2020	1.4.2020 to 31.03.2021	1.4.2021 to 31.03.2022	1.4.2022 to 31.03.2023	1.4.2023 to 31.03.2024
1	**Bond - 34**					
	Gross Drawl opening	26600.00	26600.00	26600.00	26600.00	26600.00
	Cumulative repayment of drawl till prev yr	0.00	0.00	0.00	0.00	5320.00
	Net Loan opening	26600.00	26600.00	26600.00	26600.00	21280.00
	Increase decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	26600.00	26600.00	26600.00	26600.00	21280.00
	Repayment of loan during the year				5320.00	10640.00
	Net loan closing	26600.00	26600.00	26600.00	21280.00	10640.00
	Average net loan	26600.00	26600.00	26600.00	23940.00	15960.00
	Rate of interest on loan	8.5200%	8.5200%	8.5200%	8.5200%	8.5200%
	Interest on loan	2266.32	2266.32	2266.32	2039.69	1359.79
2	**Bond - 37**					
	Gross Drawl opening	800.00	800.00	800.00	800.00	800.00
	Cumulative repayment of drawl till prev yr	0.00	0.00	0.00	0.00	0.00
	Net Loan opening	800.00	800.00	800.00	800.00	800.00
	Increase decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	800.00	800.00	800.00	800.00	800.00
	Repayment of loan during the year	0.00	0.00	0.00	0.00	0.00
	Net loan closing	800.00	800.00	800.00	800.00	800.00
	Average net loan	800.00	800.00	800.00	800.00	800.00
	Rate of interest on loan	8.2200%	8.2200%	8.2200%	8.2200%	8.2200%
	Interest on loan	65.76	65.76	65.76	65.76	65.76
3	**Bond - 38**					
	Gross Drawl opening	1000.00	1000.00	1000.00	1000.00	1000.00
	Cumulative repayment of drawl till prev yr	0.00	0.00	1000.00	1000.00	1000.00
	Net Loan opening	1000.00	1000.00	0.00	0.00	0.00
	Increase decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	1000.00	1000.00	0.00	0.00	0.00
	Repayment of loan during the year		1000.00			
	Net loan closing	1000.00	0.00	0.00	0.00	0.00
	Average net loan	1000.00	500.00	0.00	0.00	0.00
	Rate of interest on loan	8.2100%	8.2100%	8.2100%	8.2100%	8.2100%
	Interest on loan	82.10	41.05	0.00	0.00	0.00
4	**Bond - 40**					
	Gross Drawl opening	3300.00	3300.00	3300.00	3300.00	3300.00
	Cumulative repayment of drawl till prev yr	0.00	0.00	0.00	0.00	0.00
	Net Loan opening	3300.00	3300.00	3300.00	3300.00	3300.00
	Increase decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	3300.00	3300.00	3300.00	3300.00	3300.00
	Repayment of loan during the year	0.00	0.00	0.00	0.00	0.00
	Net loan closing	3300.00	3300.00	3300.00	3300.00	3300.00
	Average net loan	3300.00	3300.00	3300.00	3300.00	3300.00
	Rate of interest on loan	8.0000%	8.0000%	8.0000%	8.0000%	8.0000%
	Interest on loan	264.64	264.64	264.64	264.64	264.64
5	**Bond - 41**					
	Gross Drawl opening	2000.00	2000.00	2000.00	2000.00	2000.00
	Cumulative repayment of drawl till prev yr	0.00	0.00	0.00	666.67	666.67
	Net Loan opening	2000.00	2000.00	2000.00	1333.33	1333.33
	Increase decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	2000.00	2000.00	2000.00	1333.33	1333.33
	Repayment of loan during the year	0.00	0.00	666.67	0.00	0.00
	Net loan closing	2000.00	2000.00	1333.33	1333.33	1333.33
	Average net loan	2000.00	2000.00	1666.67	1333.33	1333.33
	Rate of interest on loan	8.1300%	8.1300%	8.1300%	8.1300%	8.1300%
	Interest on loan	162.60	162.60	135.50	108.40	108.40

पवन देव जमटा/PAWAN DEV JAMTA
(प्र. महाप्रबंधक (वाणिज्यिक))
(P.) General Manager (Commercial)
कृते एनटीपीसी लिमिटेड/ NTPC LIMITED
A-24, Sector-24, Noida-201301 (U.P.)

Calculation of Weighted Average Rate of Interest on Actual Loans

PART-IV
FORM-13

Name of the Company NTPC LTD.
Name of the Coal Mine Pakri

(Amount Rs. in Lacs)

Sl. no.	Particulars	1.4.2019 to 31.03.2020	1.4.2020 to 31.03.2021	1.4.2021 to 31.03.2022	1.4.2022 to 31.03.2023	1.4.2023 to 31.03.2024
6	**Bond - 04**					
	Gross Drawl opening	4300.00	4300.00	4300.00	4300.00	4300.00
	Cumulative repayment of drawl till prev yr	0.00	0.00	0.00	0.00	0.00
	Net Loan opening	4300.00	4300.00	4300.00	4300.00	4300.00
	Increase decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	4300.00	4300.00	4300.00	4300.00	4300.00
	Repayment of loan during the year	0.00	0.00	0.00	0.00	0.00
	Net loan closing	4300.00	4300.00	4300.00	4300.00	4300.00
	Average net loan	4300.00	4300.00	4300.00	4300.00	4300.00
	Rate of interest on loan	7.5200%	7.5200%	7.5200%	7.5200%	7.5200%
	Interest on loan	323.36	323.36	323.36	323.36	323.36
7	**Bond - 06**					
	Gross Drawl opening	6000.00	6000.00	6000.00	6000.00	6000.00
	Cumulative repayment of drawl till prev yr	0.00	0.00	0.00	0.00	0.00
	Net Loan opening	6000.00	6000.00	6000.00	6000.00	6000.00
	Increase decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	6000.00	6000.00	6000.00	6000.00	6000.00
	Repayment of loan during the year	0.00	0.00	0.00	0.00	0.00
	Net loan closing	6000.00	6000.00	6000.00	6000.00	6000.00
	Average net loan	6000.00	6000.00	6000.00	6000.00	6000.00
	Rate of interest on loan	7.4000%	7.4000%	7.4000%	7.4000%	7.4000%
	Interest on loan	444.00	444.00	444.00	444.00	444.00
8	**Bond - 07**					
	Gross Drawl opening	21521.00	21521.00	21521.00	21521.00	21521.00
	Cumulative repayment of drawl till prev yr	0.00	0.00	0.00	0.00	0.00
	Net Loan opening	21521.00	21521.00	21521.00	21521.00	21521.00
	Increase decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00
	Repayment of loan during the year	0.00	0.00	0.00	0.00	0.00
	Net loan closing	0.00	0.00	0.00	0.00	0.00
	Average net loan	10760.50	10760.50	10760.50	10760.50	10760.50
	Rate of interest on loan	8.3300%	8.3300%	8.3300%	8.3300%	8.3300%
	Interest on loan	896.33	896.33	896.33	896.33	896.33
9	**Bond - 71 (Refinancing of PFC Loan T-4)**					
	Gross Drawl opening	0.00	0.00	7500.00	7500.00	7500.00
	Cumulative repayment of drawl till prev yr	0.00	0.00	0.00	0.00	0.00
	Net Loan opening	0.00	0.00	7500.00	7500.00	7500.00
	Increase decrease due to FERV		7500.00			
	Increase decrease due to ACE					
	Total	0.00	7,500.00	7,500.00	7,500.00	7,500.00
	Repayment of loan during the year	0.00	0.00	0.00	0.00	0.00
	Net loan closing	0.00	7500.00	7500.00	7500.00	7500.00
	Average net loan	0.00	3650.00	7500.00	7500.00	7500.00
	Rate of interest on loan	0.0000%	6.5950%	6.5950%	6.5950%	6.5950%
	Interest on loan	0.00	240.72	481.44	481.44	481.44
9	**Bond - 72 (Refinancing of PFC Loan T-11)**					
	Gross Drawl opening	0.00	0.00	3500.00	3500.00	3500.00
	Cumulative repayment of drawl till prev yr	0.00	0.00	0.00	0.00	0.00
	Net Loan opening	0.00	0.00	3500.00	3500.00	3500.00
	Increase decrease due to FERV					
	Increase decrease due to ACE		3500.00			
	Total	0.00	3,500.00	3,500.00	3,500.00	3,500.00
	Repayment of loan during the year	0.00	0.00	0.00	0.00	0.00
	Net loan closing	0.00	3500.00	3500.00	3500.00	3500.00
	Average net loan	0.00	1750.00	3500.00	3500.00	3500.00
	Rate of interest on loan	0.0000%	6.8700%	6.8700%	6.8700%	6.8700%
	Interest on loan	0.00	120.23	240.45	240.45	240.45

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वित्तीय)
Deputy General Manager (Commercial)
पीएटी एवं बी एंड एफ/PAT & B&F/NTPC LIMITED
EGC, A-8A, Sector-24, Noida-201301 (U.P.)

Calculation of Weighted Average Rate of Interest on Actual Loans

PART-IV
FORM-13

Name of the Company NTPC LTD.
Name of the Coal Mine Pakri

(Amount Rs. in Lacs)

Sl. no.	Particulars	1.4.2019 to 31.03.2020	1.4.2020 to 31.03.2021	1.4.2021 to 31.03.2022	1.4.2022 to 31.03.2023	1.4.2023 to 31.03.2024
	10) Bond - Tf					
	Gross Dated opening	0.00	0.00	0.00	20000.00	20000.00
	Cumulative repayment of dated till prev yr	0.00	0.00	0.00	0.00	0.00
	Net Loan opening	0.00	0.00	0.00	20000.00	20000.00
	Increase decrease due to FERV					
	Increase decrease due to ACE			20000.00		
	Total	0.00	0.00	20,000.00	20,000.00	20,000.00
	Repayment of loan during the year	0.00	0.00	0.00	0.00	0.00
	Net loan closing	0.00	0.00	20000.00	20000.00	20000.00
	Average net loan	0.00	0.00	10000.00	20000.00	20000.00
	Rate of interest on loan	0.0000%	0.0000%	5.9000%	6.3000%	6.4000%
	Interest on loan	0.00	0.00	590.00	1260.00	1280.00
	11) Bond - Tg					
	Gross Dated opening	0.00	0.00	0.00	0.00	41800.00
	Cumulative repayment of dated till prev yr	0.00	0.00	0.00	0.00	0.00
	Net Loan opening	0.00	0.00	0.00	0.00	41800.00
	Increase decrease due to FERV					
	Increase decrease due to ACE			0.00	41800.00	
	Total	0.00	0.00	0.00	41,800.00	41,800.00
	Repayment of loan during the year	0.00	0.00	0.00	0.00	0.00
	Net loan closing	0.00	0.00	0.00	41800.00	41800.00
	Average net loan	0.00	0.00	0.00	20900.00	41800.00
	Rate of interest on loan	0.0000%	0.0000%	0.0000%	7.4700%	7.4700%
	Interest on loan	0.00	0.00	0.00	1561.20	3122.40
	12) CORPORATION BANK III					
	Gross Dated opening	10000	10000	10000	10000	10000
	Cumulative repayment of dated till prev yr	1500	2000	3000	4000	5000
	Net Loan opening	8,500.00	8,000.00	7,000.00	6,000.00	5,000.00
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	8,500.00	8,000.00	7,000.00	6,000.00	5,000.00
	Repayment of loan during the year	500	1000	1000	1000	1000
	Net loan closing	8,000.00	7,000.00	6,000.00	5,000.00	4,000.00
	Average net loan	8,250	7,500	6,500	5,500	4,500
	Rate of interest on loan	8.0274%	8.7032%	8.7800%	7.2674%	7.3443%
	Interest on loan	662	653	571	400	331
	13) CANARA BANK III [Refinanced through IDBI - IX]					
	Gross Dated opening	8000	8000	8000	8000	8000
	Cumulative repayment of dated till prev yr	800	1200	1600	2000	2400
	Net Loan opening	7,200.00	6,800.00	6,400	6,000	5,600
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	7,200.00	6,800.00	6,400	6,000	5,600
	Repayment of loan during the year	400	400			
	Net loan closing	6,800.00	6,400	6,400	6,000	5,600
	Average net loan	7,000	6,600	6,400	6,000	5,800
	Rate of interest on loan	8.1508%	7.4158%			
	Interest on loan	571	489	0	0	0
	14) IDBI BANK LIMITED IX [9-]					
	Gross Dated opening	0	0	4,900.00	4900	4900
	Cumulative repayment of dated till prev yr	-	-	-	-	-
	Net Loan opening	0.00	0.00	4,900.00	4,900.00	4,900.00
	Increase decrease due to FERV					
	Increase decrease due to ACE		4,900			
	Total	0.00	4,900.00	4,900.00	4,900.00	4,900.00
	Repayment of loan during the year	0	0			
	Net loan closing	0.00	4,900.00	4,900.00	4,900.00	4,900.00
	Average net loan	0	2,450	4,900	4,900	4,900
	Rate of interest on loan		6.1735%	7.0350%	7.1335%	7.1668%
	Interest on loan	0	151	345	350	351

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्य)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
NSG, A-8A, Sector-24, Noida-201301 (U.P.)

Calculation of Weighted Average Rate of Interest on Actual Loans

PART-IV
FORM-13

Name of the Company: NTPC LTD.
Name of the Coal Mine: Pakri

(Amount Rs. In Lacs)

Sl. no.	Particulars	1.4.2019 to 31.03.2020	1.4.2020 to 31.03.2021	1.4.2021 to 31.03.2022	1.4.2022 to 31.03.2023	1.4.2023 to 31.03.2024
13	HDFC BANK LIMITED-IX D-4 (Refinancing of Vijaya Bank IV)					
	Gross Drawl opening	0	0	178.69	178.69187	178.69187
	Cumulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	0.00	0.00	178.69	178.69	178.69
	Increase decrease due to FERV					
	Increase decrease due to ACE		178.69			
	Total	0.00	178.69	178.69	178.69	178.69
	Repayment of loan during the year	0	0			
	Net loan closing	0.00	178.69	178.69	178.69	178.69
	Average net loan	0	89	179	179	179
	Rate of interest on loan		8.3691%	6.3750%	7.6185%	8.3850%
	Interest on loan	0	6	11	14	15
14	HDFC BANK LIMITED-IX D-4 (Refinancing of Vijaya Bank V)					
	Gross Drawl opening	0	0	4,142.86	4142.8171	4142.8171
	Cumulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	0.00	0.00	4,142.86	4,142.86	4,142.86
	Increase decrease due to FERV					
	Increase decrease due to ACE		4,142.86			
	Total	0.00	4,142.86	4,142.86	4,142.86	4,142.86
	Repayment of loan during the year	0	0			
	Net loan closing	0.00	4,142.86	4,142.86	4,142.86	4,142.86
	Average net loan	0	2,071	4,143	4,143	4,143
	Rate of interest on loan		6.5691%	6.3750%	7.6585%	8.3850%
	Interest on loan	0	136	264	317	347
15	HDFC BANK LIMITED-IX D-4 (Refinancing of Canara Bank III)					
	Gross Drawl opening	0	0	6,400.00	6400	6400
	Cumulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	0.00	0.00	6,400.00	6,400.00	6,400.00
	Increase decrease due to FERV					
	Increase decrease due to ACE		6,400.00			
	Total	0.00	6,400.00	6,400.00	6,400.00	6,400.00
	Repayment of loan during the year	0	0			
	Net loan closing	0.00	6,400.00	6,400.00	6,400.00	6,400.00
	Average net loan	0	3,200	6,400	6,400	6,400
	Rate of interest on loan		6.5941%	6.4000%	7.6815%	8.6300%
	Interest on loan	0	211	410	492	538
16	HDFC BANK LIMITED-IX D-16					
	Gross Drawl opening	0	0	15,000.00	15000	15000
	Cumulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	0.00	0.00	15,000.00	15,000.00	15,000.00
	Increase decrease due to FERV					
	Increase decrease due to ACE		15000			
	Total	0.00	15,000.00	15,000.00	15,000.00	15,000.00
	Repayment of loan during the year	0	0			
	Net loan closing	0.00	15,000.00	15,000.00	15,000.00	15,000.00
	Average net loan	0	7,500	15,000	15,000	15,000
	Rate of interest on loan		7.9500%	7.9500%	7.2550%	7.9500%
	Interest on loan	0	446	893	1,087	1,191
17	HDFC BANK LIMITED-II					
	Gross Drawl opening	15000	15000	15000	15000	15000
	Cumulative repayment of drawl till prev yr	10,714	12,857	15,000	15,000	15,000
	Net Loan opening	4,285.71	2,142.86	0.00	0.00	0.00
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	4,285.71	2,142.86	0.00	0.00	0.00
	Repayment of loan during the year	2,142.86	2,142.86			
	Net loan closing	2,142.86	0.00	0.00	0.00	0.00
	Average net loan	3,214	1,071	0	0	0
	Rate of interest on loan	8.0194%	6.3062%			
	Interest on loan	259	68	0	0	0

पवन देव जमुटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
C.A.-8A, Sector-[illegible] Noida-201301 (U.P.)

Calculation of Weighted Average Rate of Interest on Actual Loans

PART-IV
FORM-13

Name of the Company: NTPC LTD.
Name of the Coal Mine: Pakri

(Amount Rs. in Lacs)

Sl. no.	Particulars	1.4.2019 to 31.03.2020	1.4.2020 to 31.03.2021	1.4.2021 to 31.03.2022	1.4.2022 to 31.03.2023	1.4.2023 to 31.03.2024
20	HDFC BANK LIMITED-III					
	Gross Drawl opening	1000	1000	1000	1000	1000
	Cumulative repayment of drawl till prev yr				111.11	222.22
	Net Loan opening	1,000.00	1,000.00	1,000.00	888.89	777.78
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	1,000.00	1,000.00	1,000.00	888.89	777.78
	Repayment of loan during the year			111.11	111.11	111.11
	Net loan closing	1,000.00	1,000.00	888.89	777.78	666.67
	Average net loan	1,000	1,000	944	833	722
	Rate of interest on loan	8.0394%	6.3082%	5.9300%	7.2335%	7.9600%
	Interest on loan	81	64	56	60	57
21	HDFC BANK LIMITED V					
	Gross Drawl opening	2600	2600	2600	2600	2600
	Cumulative repayment of drawl till prev yr	0	0	0	0	0
	Net Loan opening	2,600.00	2,600.00	2,600.00	2,600.00	2,600.00
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	2,600.00	2,600.00	2,600.00	2,600.00	2,600.00
	Repayment of loan during the year	0	0	0	0	0
	Net loan closing	2,600.00	2,600.00	2,600.00	2,600.00	2,600.00
	Average net loan	2,600	2,600	2,600	2,600	2,600
	Rate of interest on loan	8.0394%	6.3082%	5.9300%	7.2335%	7.9600%
	Interest on loan	210	168	151	188	207
22	ICICI Bank Ltd-IV					
	Gross Drawl opening	14200	14200	14200	14200	14200
	Cumulative repayment of drawl till prev yr	14,200.00	14,200.00	14,200.00	14,200.00	14,200.00
	Net Loan opening	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	0.00	0.00	0.00	0.00	0.00
	Repayment of loan during the year					
	Net loan closing	0.00	0.00	0.00	0.00	0.00
	Average net loan	0	0	0	0	0
	Rate of interest on loan					
	Interest on loan	0	0	0	0	0
23	ICICI Bank Ltd-V					
	Gross Drawl opening	5250	5250	5250	5250	5250
	Cumulative repayment of drawl till prev yr	5,250.00	5,250.00	5,250.00	5,250.00	5,250.00
	Net Loan opening	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	0.00	0.00	0.00	0.00	0.00
	Repayment of loan during the year					
	Net loan closing	0.00	0.00	0.00	0.00	0.00
	Average net loan	0	0	0	0	0
	Rate of interest on loan					
	Interest on loan	0	0	0	0	0
24	ICICI Bank Ltd-VI					
	Gross Drawl opening	16271	16271	16271	16271	16271
	Cumulative repayment of drawl till prev yr	16,271.00	16,271.00	16,271.00	16,271.00	16,271.00
	Net Loan opening	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	0.00	0.00	0.00	0.00	0.00
	Repayment of loan during the year					
	Net loan closing	0.00	0.00	0.00	0.00	0.00
	Average net loan	0	0	0	0	0
	Rate of interest on loan					
	Interest on loan	0	0	0	0	0

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
FDC, A-8A, Sector-24, Noida-201301 (U.P.)

Calculation of Weighted Average Rate of Interest on Actual Loans

PART-IV
FORM-13

Name of the Company NTPC LTD.
Name of the Coal Mine Pakri

(Amount Rs. in Lacs)

Sl. no.	Particulars	1.4.2019 to 31.03.2020	1.4.2020 to 31.03.2021	1.4.2021 to 31.03.2022	1.4.2022 to 31.03.2023	1.4.2023 to 31.03.2024
25	**IDFC Bank IV**					
	Gross Drawl opening	12000	12000	12000	12000	12000
	Cummulative repayment of drawl till prev yr	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00
	Net Loan opening	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	0.00	0.00	0.00	0.00	0.00
	Repayment of loan during the year					
	Net loan closing	0.00	0.00	0.00	0.00	0.00
	Average net loan	0	0	0	0	0
	Rate of interest on loan					
	Interest on loan	0	0	0	0	0
26	**J AK IV**					
	Gross Drawl opening	1900	1900	1900	1900	1900
	Cummulative repayment of drawl till prev yr			211.11	422.22	633.33
	Net Loan opening	1,900.00	1,900.00	1,688.89	1,477.78	1,266.67
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	1,900.00	1,900.00	1,688.89	1,477.78	1,266.67
	Repayment of loan during the year		211.11	211.11	211.11	
	Net loan closing	1,900.00	1,688.89	1,477.78	1,266.67	1,266.67
	Average net loan	1,500	1,794	1,583	1,372	1,267
	Rate of interest on loan	7.8000%	6.8000%	7.8000%	6.9733%	7.8000%
	Interest on loan	112	120	93	96	101
27	**Karnataka Bank Limited**					
	Gross Drawl opening	5375	5375	5375	5375	5375
	Cummulative repayment of drawl till prev yr	0	0	5375	5375	5375
	Net Loan opening	5,375.00	5,375.00	0.00	0.00	0.00
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	5,375.00	5,375.00	0.00	0.00	0.00
	Repayment of loan during the year		5375			
	Net loan closing	5,375.00	0.00	0.00	0.00	0.00
	Average net loan	5,375	2,688	0	0	0
	Rate of interest on loan	7.4478%	5.3767%			
	Interest on loan	400	144	0	0	0
28	**Power Finance Corporation Ltd-V Drawal-1**					
	Gross Drawl opening	4000	4000	4000	4000	4000
	Cummulative repayment of drawl till prev yr	4000	4000	4000	4000	4000
	Net Loan opening	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	0.00	0.00	0.00	0.00	0.00
	Repayment of loan during the year					
	Net loan closing	0.00	0.00	0.00	0.00	0.00
	Average net loan	0	0	0	0	0
	Rate of interest on loan					
	Interest on loan	0	0	0	0	0
29	**Power Finance Corporation Ltd-V Drawal-2 (Refinanced by Bonds 72)**					
	Gross Drawl opening	7500	7500	7500	7500	7500
	Cummulative repayment of drawl till prev yr	0	0	7500	7500	7500
	Net Loan opening	7,500.00	7,500.00	0.00	0.00	0.00
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	7,500.00	7,500.00	0.00	0.00	0.00
	Repayment of loan during the year		7500			
	Net loan closing	7,500.00	0.00	0.00	0.00	0.00
	Average net loan	7,500	3,650	0	0	0
	Rate of interest on loan	7.6800%	7.6800%			
	Interest on loan	561	280	0	0	0

पवन देव [illegible]/PAWAN DEV [illegible]
[illegible]
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
[illegible]

Calculation of Weighted Average Rate of Interest on Actual Loans

PART-IV
FORM-13

Name of the Company NTPC LTD,
Name of the Coal Mine Pakri

(Amount Rs. in Lacs)

Sl. no.	Particulars	1.4.2019 to 31.03.2020	1.4.2020 to 31.03.2021	1.4.2021 to 31.03.2022	1.4.2022 to 31.03.2023	1.4.2023 to 31.03.2024
30	Power Finance Corporation Ltd-V Drawal-3 (Refinanced by Bonds-II)					
	Gross Drawl opening	3500	3500	3500	3500	3500
	Cumulative repayment of drawl till prev yr	0	0	3500	3500	3500
	Net Loan opening	3,500.00	3,500.00	0.00	0.00	0.00
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	3,500.00	3,500.00	0.00	0.00	0.00
	Repayment of loan during the year		3500			
	Net loan closing	3,500.00	0.00	0.00	0.00	0.00
	Average net loan	3,500	1,750	0	0	0
	Rate of interest on loan	8.2300%	8.2300%			
	Interest on loan	288	144	0	0	0
31	PNB-III					
	Gross Drawl opening	3500	3500	3500	3500	3500
	Cumulative repayment of drawl till prev yr				388.89	777.78
	Net Loan opening	3,500.00	3,500.00	3,500.00	3,111.11	2,722.22
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	3,500.00	3,500.00	3,500.00	3,111.11	2,722.22
	Repayment of loan during the year			388.89	388.89	388.89
	Net loan closing	3,500.00	3,500.00	3,111.11	2,722.22	2,333.33
	Average net loan	3,500	3,500	3,306	2,917	2,528
	Rate of interest on loan	8.0182%	8.4163%	7.9859%	7.8473%	7.8000%
	Interest on loan	280	340	264	228	197
32	PNB-IV					
	Gross Drawl opening	4200	4200	4200	4200	4200
	Cumulative repayment of drawl till prev yr				-	1,577.78
	Net Loan opening	4,200.00	4,200.00	4,200.00	4,200.00	2,622.22
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	4,200.00	4,200.00	4,200.00	4,200.00	2,622.22
	Repayment of loan during the year			-	1,577.78	1,577.78
	Net loan closing	4,200.00	4,200.00	4,200.00	2,622.22	1,044.44
	Average net loan	4,200	4,200	4,200	3,411	1,833
	Rate of interest on loan	8.0102%	8.4563%	7.9859%	7.8473%	7.8000%
	Interest on loan	336	355	272	268	143
33	SBI-VI					
	Gross Drawl opening	4000	4000	4000	4000	4000
	Cumulative repayment of drawl till prev yr	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00
	Net Loan opening	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	0.00	0.00	0.00	0.00	0.00
	Repayment of loan during the year					
	Net loan closing	0.00	0.00	0.00	0.00	0.00
	Average net loan	0	0	0	0	0
	Rate of Interest on loan					
	Interest on loan	0	0	0	0	0
34	SBI-VIII					
	Gross Drawl opening	7,928.57	7,928.57	7,928.57	7,928.57	7,928.57
	Cumulative repayment of drawl till prev yr				880.95	1,761.90
	Net Loan opening	7,928.57	7,928.57	7,928.57	7,047.62	6,166.67
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	7,928.57	7,928.57	7,928.57	7,047.62	6,166.67
	Repayment of loan during the year			880.95	880.95	880.95
	Net loan closing	7,928.57	7,928.57	7,047.62	6,166.67	5,285.71
	Average net loan	7,929	7,929	7,488	6,607	5,726
	Rate of interest on loan	7.9182%	8.4163%	8.0700%	7.7198%	8.1343%
	Interest on loan	629	544	450	510	465

पवन देव जाखड़/PAWAN DEV JAKHA
उप महाप्रबंधक (वित्त)/Deputy General Manager (Fin. Comml)
एनटीपीसी/NTPC LIMITED
A-8A, Sector-24, Noida-201301 (U.P.)

Calculation of Weighted Average Rate of Interest on Actual Loans

PART-IV
FORM-13

Name of the Company HTPC LTD.
Name of the Coal Mine Pakri

(Amount Rs. in Lacs)

Sl. no.	Particulars	1.4.2019 to 31.03.2020	1.4.2020 to 31.03.2021	1.4.2021 to 31.03.2022	1.4.2022 to 31.03.2023	1.4.2023 to 31.03.2024
37	SBI IV D-2,88,9					
	Gross Drawl opening	20000	20000	20000	20000	20000
	Cumulative repayment of drawl till prev yr			2222	4444	6667
	Net Loan opening	20,000.00	20,000.00	17,777.80	15,555.60	13,333.40
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	20,000.00	20,000.00	17,777.80	15,555.60	13,333.40
	Repayment of loan during the year		2222	2222	2222	
	Net loan closing	20,000.00	17,777.80	15,555.60	13,333.40	13,333.40
	Average net loan	20,000	18,889	16,667	14,445	13,333
	Rate of interest on loan	7.0342%	6.8360%	6.0300%	7.2100%	8.1202%
	Interest on loan	1,587	1,291	1,005	1,042	1,083
38	SBI IV D-B					
	Gross Drawl opening	0	0	1500	1500	1500
	Cumulative repayment of drawl till prev yr			144	289	433
	Net Loan opening	0.00	0.00	1,355.56	1,211.11	966.67
	Increase decrease due to FERV					
	Increase decrease due to ACE		(144)			
	Total	0.00	1,500.00	1,355.56	1,211.11	966.67
	Repayment of loan during the year		144	144	144	
	Net loan closing	0.00	1,355.56	1,211.11	966.67	966.67
	Average net loan	0	678	1283	939	967
	Rate of interest on loan		6.8360%	6.6300%	7.2100%	8.1202%
	Interest on loan	0	46	72	68	79
39	SBI X					
	Gross Drawl opening	17500	17500	17500	17500	17500
	Cumulative repayment of drawl till prev yr					
	Net Loan opening	17,500.00	17,500.00	17,500.00	17,500.00	17,500.00
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	17,500.00	17,500.00	17,500.00	17,500.00	17,500.00
	Repayment of loan during the year					
	Net loan closing	17,500.00	17,500.00	17,500.00	17,500.00	17,500.00
	Average net loan	17,500	17,500	17,500	17,500	17,500
	Rate of interest on loan	7.0342%	6.8732%	6.6300%	7.2100%	8.1202%
	Interest on loan	1,389	1,189	1,176	1,599	1,808
40	VIJAYA BANK IV (Refinanced through HDFC EX)					
	Gross Drawl opening	2500	2500	2500	2500	2500
	Cumulative repayment of drawl till prev yr	1,964.18	2,321.51	2,500.00	2,500.00	2,500.00
	Net Loan opening	535.82	178.49	0.00	0.00	0.00
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	535.82	178.49	0.00	0.00	0.00
	Repayment of loan during the year	357.33	178.49			
	Net loan closing	178.49	0.00	0.00	0.00	0.00
	Average net loan	357	89	0	0	0
	Rate of interest on loan	8.0342%	7.2879%			
	Interest on loan	29	7	0	0	0
41	VIJAYA BANK V (Refinanced through HDFC EX)					
	Gross Drawl opening	10500	14500	14500	14500	14500
	Cumulative repayment of drawl till prev yr	4,288	9,321	14,500	14,500	14,500
	Net Loan opening	6,214.29	5,178.57	0.00	0.00	0.00
	Increase decrease due to FERV					
	Increase decrease due to ACE					
	Total	6,214.29	5,178.57	0.00	0.00	0.00
	Repayment of loan during the year	1,035.71	5,178.57			
	Net loan closing	5,178.57	0.00	0.00	0.00	0.00
	Average net loan	5,696	2,589	0	0	0
	Rate of interest on loan	8.0342%	7.2879%			
	Interest on loan	458	189	0	0	0

Deputy General Manager (Commercial)
NTPC LIMITED
EOC, A-8, Sector-24, Noida

Calculation of Weighted Average Rate of Interest on Actual Loans

PART-IV
FORM-13

Name of the Company NTPC LTD.
Name of the Coal Mine Pakri

(Amount Rs. in Lacs)

Sl. no.	Particulars	1.4.2019 to 31.03.2020	1.4.2020 to 31.03.2021	1.4.2021 to 31.03.2022	1.4.2022 to 31.03.2023	1.4.2023 to 31.03.2024
40	**Bank of India-IV (Re-financing of Bank of India III)**					
	Gross Drawl opening	0	0	20,000.00	20,000.00	20,000.00
	Cumulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	0.00	0.00	20,000.00	20,000.00	20,000.00
	Increase decrease due to FERV					
	Increase decrease due to ACE		20,000.00			
	Total	0.00	20,000.00	20,000.00	20,000.00	20,000.00
	Repayment of loan during the year	-	0.00			
	Net loan closing	0.00	20,000.00	20,000.00	20,000.00	20,000.00
	Average net loan	0	10,000	20,000	20,000	20,000
	Rate of interest on loan		8.3500%	8.3500%	7.7215%	8.3500%
	Interest on loan	0	833	1,270	1,544	1,670
41	**HDFC VII D-1**					
	Gross Drawl opening	0	0	3,500.00	3,500.00	3,500.00
	Cumulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	0.00	0.00	3,500.00	3,500.00	3,500.00
	Increase decrease due to FERV					
	Increase decrease due to ACE		3,500			
	Total	0.00	3,500.00	3,500.00	3,500.00	3,500.00
	Repayment of loan during the year	-	0.00			
	Net loan closing	0.00	3,500.00	3,500.00	3,500.00	3,500.00
	Average net loan	0	1,750	3,500	3,500	3,500
	Rate of interest on loan		6.9982%	3.9500%	7.2335%	7.6020%
	Interest on loan	0	112	208	155	279
42	**HDFC VII D-5**					
	Gross Drawl opening	0	0	1,500.00	1,500.00	1,500.00
	Cumulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	0.00	0.00	1,500.00	1,500.00	1,500.00
	Increase decrease due to FERV					
	Increase decrease due to ACE		1,500.00			
	Total	0.00	1,500.00	1,500.00	1,500.00	1,500.00
	Repayment of loan during the year	-	0.00			
	Net loan closing	0.00	1,500.00	1,500.00	1,500.00	1,500.00
	Average net loan	0	750	1,500	1,500	1,500
	Rate of interest on loan		6.9982%	3.9500%	7.2335%	7.6020%
	Interest on loan	0	48	89	109	117
43	**Bank of India III**					
	Gross Drawl opening	0	0	200.00	200.00	200.00
	Cumulative repayment of drawl till prev yr	-	-	200	200	200
	Net Loan opening	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to FERV					
	Increase decrease due to ACE		200.00			
	Total	0.00	200.00	0.00	0.00	0.00
	Repayment of loan during the year	-	200.00			
	Net loan closing	0.00	0.00	0.00	0.00	0.00
	Average net loan	0	0	0	0	0
	Rate of interest on loan		0.0000%			
	Interest on loan	0	0	0	0	0
44	**HDFC XI**					
	Gross Drawl opening	0	0	0.00	0.00	0.00
	Cumulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to FERV					
	Increase decrease due to ACE		0.00			17000
	Total	0.00	0.00	0.00	0.00	17,000.00
	Repayment of loan during the year	-	0.00			
	Net loan closing	0.00	0.00	0.00	0.00	17,000.00
	Average net loan	0	0	0	0	8,700
	Rate of interest on loan		0.0000%			7.8138%
	Interest on loan	0	0	0	0	666

पवन देव जांगरा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
PDC, A-8A, Sector-24, Noida-201301 (U.P.)

Calculation of Weighted Average Rate of Interest on Actual Loans

PART-IV
FORM-13

Name of the Company NTPC LTD.
Name of the Coal Mine Pakri

(Amount Rs. in Lacs)

Sl. no.	Particulars	1.4.2019 to 31.03.2020	1.4.2020 to 31.03.2021	1.4.2021 to 31.03.2022	1.4.2022 to 31.03.2023	1.4.2023 to 31.03.2024
45	HDFC XII D-3					
	Gross Drawd opening	0	0	0.00	0.00	0.00
	Cumulative repayment of drawd till prev yr	-	-	-	-	-
	Net Loan opening	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to FERV					
	Increase decrease due to ACE					6000
	Total	0.00	0.00	0.00	0.00	6,000.00
	Repayment of loan during the year	-	0.00			
	Net loan closing	0.00	0.00	0.00	0.00	6,000.00
	Average net loan	0	0	0	0	3,000
	Rate of interest on loan		0.0000%			7.6833%
	Interest on loan	0	0	0	0	231
46	HDFC XII D-4					
	Gross Drawd opening	0	0	0.00	0.00	0.00
	Cumulative repayment of drawd till prev yr	-	-	-	-	-
	Net Loan opening	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to FERV					
	Increase decrease due to ACE					6000
	Total	0.00	0.00	0.00	0.00	6,000.00
	Repayment of loan during the year	-	0.00			
	Net loan closing	0.00	0.00	0.00	0.00	6,000.00
	Average net loan	0	0	0	0	3,000
	Rate of interest on loan		0.0000%			7.6733%
	Interest on loan	0	0	0	0	133
47	ICICI Bank VII					
	Gross Drawd opening	0	0	0.00	0.00	10,000.00
	Cumulative repayment of drawd till prev yr	-	-	-	-	-
	Net Loan opening	0.00	0.00	0.00	0.00	10,000.00
	Increase decrease due to FERV					
	Increase decrease due to ACE				10,000.00	
	Total	0.00	0.00	0.00	10,000.00	10,000.00
	Repayment of loan during the year	-	0.00			
	Net loan closing	0.00	0.00	0.00	10,000.00	10,000.00
	Average net loan	0	0	0	5,000	10,000
	Rate of interest on loan		0.0000%		8.1000%	8.6614%
	Interest on loan	0	0	0	407	867
48	JFY Eqs. 5400 Million Drawd II					
	Gross Drawd opening	0	0	0.00	0.00	0.00
	Cumulative repayment of drawd till prev yr	-	-	-	-	-
	Net Loan opening	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to FERV					
	Increase decrease due to ACE		0.00		0.00	12,300
	Total	0.00	0.00	0.00	0.00	12,700
	Repayment of loan during the year	-	0.00			
	Net loan closing	0.00	0.00	0.00	0.00	12,300.11
	Average net loan	0	0	0	0	6,270
	Rate of interest on loan		0.0000%			1.2149%
	Interest on loan	0	0	0	0	76
49	JFY Eqs. 5400 Million Drawd III					
	Gross Drawd opening	0	0	0.00	0.00	0.00
	Cumulative repayment of drawd till prev yr	-	-	-	-	-
	Net Loan opening	0.00	0.00	0.00	0.00	0.00
	Increase decrease due to FERV					
	Increase decrease due to ACE				0.00	200
	Total	0.00	0.00	0.00	0.00	200.00
	Repayment of loan during the year	-	0.00			
	Net loan closing	0.00	0.00	0.00	0.00	200.00
	Average net loan	0	0	0	0	100
	Rate of interest on loan		0.0000%			1.2132%
	Interest on loan	0	0	0	0	1

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (सीमित)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
A-8A, Sector-24, Noida-201301 (U.P.)

Calculation of Weighted Average Rate of Interest on Actual Loans

PART-IV
FORM-13

Name of the Company NTPC LTD.
Name of the Coal Mine Pakri

(Amount Rs. in Lacs)

Sl. no.	Particulars	1.4.2019 to 31.03.2020	1.4.2020 to 31.03.2021	1.4.2021 to 31.03.2022	1.4.2022 to 31.03.2023	1.4.2023 to 31.03.2024
	[illegible] Rate Bond IV					
	Gross Drawl opening	0	0	0.00	0.00	0.00
	Cumulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	0.00	0.00	0.00	0.00	0.00
	Increase/decrease due to FERV					
	Increase/decrease due to ACE				0.00	[illegible]
	Total	0.00	0.00	0.00	0.00	[illegible]
	Repayment of loan during the year	-	0.00			
	Net loan closing	0.00	0.00	0.00	0.00	[illegible]
	Average net loan	0	0	0	0	[illegible]
	Rate of interest on loan		0.0000%			[illegible]
	Interest on loan	0	0	0	0	[illegible]
	Gross Drawl opening	2,65,840	2,65,840	3,11,507	3,11,507	3,87,967
	Cumulative repayment of drawl till prev yr	78,985	93,421	1,16,674	1,24,209	1,36,158
	Net Loan opening	1,86,855	1,72,419	1,95,001	2,09,666	2,49,612
	Increase/decrease due to FERV	-	7,309	-	-	-
	Increase/decrease due to ACE	-	66,422	20,000	51,000	47,000
	Total	1,45,339	2,06,629	1,95,172	2,39,747	2,34,841
	Repayment of loan during the year	2,643	22,994	7,827	11,858	14,709
	Net loan closing	1,40,304	1,42,991	1,37,725	1,91,389	2,20,430
	Average net loan	1,93,862	1,67,999	1,94,220	2,29,675	2,34,852
	Rate of interest on loan	6.8316%	7.2054%	6.8020%	5.8107%	7.0770%
	Interest on loan	12,760	12,104	13,210	16,424	16,312

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्य)
Dy. General Manager (Commercial)
एनटीपीसी लि./NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

INTEREST RATE MOVEMENT FY 2019-20							
S.NO.	BANK	RATE OF INTEREST	From	To	Number of	Product	Weighted Average Rate of Interest
1	Bank of India-II	8.300%	01-Apr-19	20-Jun-19	80.00	6.64	8.0783%
		8.350%	20-Jun-19	20-Aug-19	61.00	5.09	
		8.200%	20-Aug-19	09-Dec-19	111.00	9.10	
		7.950%	09-Dec-19	10-Dec-19	1.00	0.08	
		7.750%	10-Dec-19	10-Feb-20	62.00	4.81	
		7.650%	10-Feb-20	10-Mar-20	29.00	2.22	
		7.400%	10-Mar-20	31-Mar-20	22.00	1.63	
					366.00	29.57	8.0783%
2	Canara Bank-III	8.450%	01-Apr-19	23-Jul-19	113.00	9.55	8.1906%
		8.400%	23-Jul-19	23-Aug-19	31.00	2.60	
		8.300%	23-Aug-19	23-Sep-19	31.00	2.57	
		8.200%	23-Sep-19	23-Nov-19	61.00	5.00	
		8.150%	23-Nov-19	23-Dec-19	30.00	2.45	
		7.900%	23-Dec-19	23-Feb-20	62.00	4.90	
		7.650%	25-Feb-20	31-Mar-20	38.00	2.91	
					366.00	29.98	8.1906%
3	Corporation Bank-III	8.200%	01-04-2019	25-09-2019	177.00	14.51	8.0276%
		8.050%	25-09-2019	25-10-2019	30.00	2.42	
		8.000%	25-10-2019	25-12-2019	61.00	4.88	
		7.850%	25-12-2019	25-01-2020	31.00	2.43	
		7.750%	25-01-2020	25-02-2020	31.00	2.40	
		7.600%	25-02-2020	31-03-2020	36.00	2.74	
					366.00	29.38	8.0276%
4	HDFC Bank Limited-II	8.450%	01-Apr-19	01-07-2019	91.00	7.69	8.0594%
		8.400%	01-Jul-19	29-07-2019	28.00	2.35	
		8.300%	29-Jul-19	29-08-2019	31.00	2.57	
		8.200%	29-Aug-19	29-09-2019	31.00	2.54	
		8.100%	29-Sep-19	29-10-2019	30.00	2.43	
		8.000%	29-Oct-19	01-12-2019	33.00	2.64	
		7.650%	01-Dec-19	01-03-2020	91.00	6.96	
		7.450%	01-Mar-20	31-Mar-20	31.00	2.31	
					366.00	29.50	8.0594%
5	HDFC Bank Limited-III	8.450%	01-Apr-19	01-07-2019	91.00	7.69	8.0594%
		8.400%	01-Jul-19	29-07-2019	28.00	2.35	
		8.300%	29-Jul-19	29-08-2019	31.00	2.57	
		8.200%	29-Aug-19	29-09-2019	31.00	2.54	
		8.100%	29-Sep-19	29-10-2019	30.00	2.43	
		8.000%	29-Oct-19	01-12-2019	33.00	2.64	
		7.650%	01-Dec-19	01-03-2020	91.00	6.96	
		7.450%	01-Mar-20	31-Mar-20	31.00	2.31	
					366.00	29.50	8.0594%

PAWAN DEV JAMTA
Deputy General Manager (Civil Design)
Sector 24, Noida 201301 (U.P.)

6	HDFC Bank Limited-V	8.450%	01-Apr-19	25-06-2019	85.00	7.18	8.0586%
		8.400%	26-Jun-19	29-07-2019	34.00	2.86	
		8.300%	29-Jul-19	29-08-2019	31.00	2.57	
		8.200%	29-Aug-19	29-09-2019	31.00	2.54	
		8.100%	29-Sep-19	29-10-2019	30.00	2.43	
		8.000%	29-Oct-19	01-12-2019	33.00	2.64	
		7.650%	01-Dec-19	01-03-2020	91.00	6.96	
		7.450%	01-Mar-20	31-Mar-20	31.00	2.31	
					368.00	29.49	8.0586%
7	HDFC Bank Limited-VII	8.4000%	11-Jun-19	29-07-2019	48.00	4.03	7.9524%
		8.3000%	29-Jul-19	29-08-2019	31.00	2.57	
		8.2000%	29-Aug-19	29-09-2019	31.00	2.54	
		8.1000%	29-Sep-19	29-10-2019	30.00	2.43	
		8.0000%	29-Oct-19	01-12-2019	33.00	2.64	
		7.6500%	01-Dec-19	11-02-2020	72.00	5.51	
		7.5000%	11-Feb-20	01-03-2020	19.00	1.43	
		7.4500%	01-Mar-20	31-Mar-20	31.00	2.31	
					295.00	23.46	7.9534%
8	PNB-IV	8.300%	01-Apr-19	04-05-2019	33.00	2.74	8.0102%
		8.200%	04-May-19	04-08-2019	92.00	7.54	
		8.050%	04-Aug-19	01-10-2019	58.00	4.67	
		8.050%	01-Oct-19	04-11-2019	34.00	2.74	
		7.900%	04-Nov-19	04-02-2020	92.00	7.27	
		7.650%	04-Feb-20	31-Mar-20	57.00	4.36	
					366.00	29.32	8.0102%
9	Jammu & Kashmir Bank-IV	8.3000%	01-Apr-19	01-05-2019	30.00	2.49	7.9680%
		8.2500%	01-May-19	01-07-2019	61.00	5.03	
		8.2000%	01-Jul-19	01-09-2019	62.00	5.08	
		8.0000%	01-Sep-19	01-10-2019	30.00	2.40	
		7.9500%	01-Oct-19	01-11-2019	31.00	2.46	
		7.9000%	01-Nov-19	01-12-2019	30.00	2.37	
		7.8000%	01-Dec-19	01-01-2020	31.00	2.42	
		7.7000%	01-Jan-20	01-02-2020	31.00	2.39	
		7.6500%	01-Feb-20	31-Mar-20	60.00	4.59	
					366.00	29.24	7.9880%
10	Karnataka Bank Ltd II	7.9500%	01-Apr-19	28-06-2019	88.00	7.00	7.4476%
		7.8500%	28-Jun-19	28-09-2019	92.00	7.22	
		7.1900%	28-Sep-19	28-12-2019	91.00	6.54	
		6.8300%	28-Dec-19	31-Mar-20	90.00	6.49	
					366.00	27.26	7.4476%

NAME OF SHRI PAWAN DEV JAMTA
(In Capitals)
Designation (In Block Letters)
Deputy General Manager (Commercial)
(In the case of Power Exchange)
NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

11	Punjab National Bank III	8.3000%	01-Apr-19	04-05-2019	33.00	2.74	8.0102%
		8.2000%	04-May-19	04-08-2019	92.00	7.54	
		8.0500%	04-Aug-19	01-10-2019	58.00	4.67	
		8.0500%	01-Oct-19	04-11-2019	34.00	2.74	
		7.9000%	04-Nov-19	04-02-2020	92.00	7.27	
		7.6500%	04-Feb-20	31-Mar-20	57.00	4.36	
					366.00	29.32	8.0102%
12	State Bank of India - VIII	8.2500%	01-Apr-19	14-05-2019	43.00	3.55	7.9342%
		8.1500%	14-May-19	14-08-2019	92.00	7.50	
		7.9500%	14-Aug-19	14-11-2019	92.00	7.31	
		7.7000%	14-Nov-19	14-02-2020	92.00	7.08	
		7.6500%	14-Feb-20	31-Mar-20	47.00	3.60	
					366.00	29.04	7.9342%
13	State Bank of India - IX	8.2500%	01-Apr-19	14-05-2019	43.00	3.55	7.9342%
		8.1500%	14-May-19	14-08-2019	92.00	7.50	
		7.9500%	14-Aug-19	14-11-2019	92.00	7.31	
		7.7000%	14-Nov-19	14-02-2020	92.00	7.08	
		7.6500%	14-Feb-20	31-Mar-20	47.00	3.60	
					366.00	29.04	7.9342%
14	State Bank of India - X	8.2500%	01-Apr-19	25-06-2019	85.00	7.01	7.9743%
		8.1500%	25-Jun-19	25-09-2019	92.00	7.50	
		7.8500%	25-Sep-19	25-12-2019	91.00	7.14	
		7.7000%	25-Dec-19	25-03-2020	91.00	7.01	
		7.5000%	25-Mar-20	31-Mar-20	7.00	0.53	
					366.00	29.19	7.9743%
15	Vijaya Bank-IV	8.4000%	01-Apr-19	13-04-2019	12.00	1.01	8.0342%
		8.3000%	13-Apr-19	13-05-2019	30.00	2.49	
		8.3500%	13-May-19	13-07-2019	61.00	5.09	
		8.3000%	13-Jul-19	13-08-2019	31.00	2.57	
		8.1500%	13-Aug-19	13-09-2019	31.00	2.53	
		8.1000%	13-Sep-19	13-10-2019	30.00	2.43	
		8.0500%	13-Oct-19	13-11-2019	31.00	2.50	
		7.8500%	13-Nov-19	13-12-2019	30.00	2.36	
		7.8500%	13-Dec-19	13-01-2020	31.00	2.37	
		7.8000%	13-Jan-20	13-02-2020	31.00	2.36	
		7.5500%	13-Feb-20	15-Mar-20	31.00	2.34	
					349.00	29.04	8.0342%
16	Vijaya Bank-V	8.4000%	01-Apr-19	13-04-2019	12.00	1.01	8.0117%
		8.3000%	13-Apr-19	13-05-2019	30.00	2.49	
		8.3500%	13-May-19	13-07-2019	61.00	5.09	
		8.3000%	13-Jul-19	13-08-2019	31.00	2.57	
		8.1500%	13-Aug-19	13-09-2019	31.00	2.53	
		8.1000%	13-Sep-19	13-10-2019	30.00	2.43	
		8.0500%	13-Oct-19	13-11-2019	31.00	2.50	
		7.8500%	13-Nov-19	13-12-2019	30.00	2.36	
		7.8500%	13-Dec-19	13-01-2020	31.00	2.37	
		7.8000%	13-Jan-20	13-02-2020	31.00	2.36	
		7.5500%	13-Feb-20	31-Mar-20	48.00	3.62	
					366.00	29.39	8.0117%

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Dep.// General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

INTEREST RATE MOVEMENT FY 2020-21							
S.NO.	BANK	RATE OF INTEREST	From	To	Number o	Product	Weighted Average Rate of Interest
1	Bank Of India-III	7.000%	18-Jun-20	30-Jun-20	13.00	0.91	6.7859%
		6.900%	01-Jul-20	31-Jul-20	31.00	2.14	
		6.800%	01-Aug-20	31-Aug-20	31.00	2.11	
		6.750%	01-Sep-20	30-Sep-20	30.00	2.03	
		6.700%	01-Oct-20	06-Dec-20	67.00	4.49	
					172.00	11.67	
2	Bank Of India-IV	6.000%	07-Dec-20	31-Mar-21	115.00	6.90	6.0000%
3	Canara Bank-III	7.650%	01-Apr-20	22-Apr-20	22.00	1.68	7.4138%
		7.500%	23-Apr-20	22-Jun-20	61.00	4.58	
		7.300%	23-Jun-20	22-Jul-20	30.00	2.19	
		7.200%	23-Jul-20	22-Aug-20	31.00	2.23	
		7.000%	23-Aug-20	23-Aug-20	1.00	0.07	
					145.00	10.75	
4	Corporation Bank-III	7.600%	01-Apr-20	24-Apr-20	24.00	1.82	6.7032%
		7.350%	25-Apr-20	24-May-20	30.00	2.21	
		7.250%	25-May-20	24-Jun-20	31.00	2.25	
		7.150%	25-Jun-20	24-Jul-20	30.00	2.15	
		6.950%	25-Jul-20	24-Aug-20	31.00	2.15	
		6.800%	25-Aug-20	24-Sep-20	31.00	2.11	
		6.750%	25-Sep-20	30-Nov-20	67.00	4.52	
		6.000%	01-Dec-20	31-Mar-21	121.00	7.26	
					365.00	24.47	
5	HDFC Bank Limited-II	7.450%	01-Apr-20	31-May-20	61.00	4.54	6.3982%
		6.300%	01-Jun-20	23-Dec-20	206.00	12.98	
		5.950%	24-Dec-20	31-Mar-21	98.00	5.83	
					365.00	23.35	
6	HDFC Bank Limited-III	7.450%	01-Apr-20	31-May-20	61.00	4.54	6.3982%
		6.300%	01-Jun-20	23-Dec-20	206.00	12.98	
		5.950%	24-Dec-20	31-Mar-21	98.00	5.83	
					365.00	23.35	

पवन देव जमाता/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Dy. General Manager (Commercial)
एन.टी.पी.सी. लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

7	HDFC Bank Limited-V	7.450%	01-Apr-20	31-May-20	61.00	4.54	6.3982%
		6.300%	01-Jun-20	23-Dec-20	206.00	12.98	
		5.950%	24-Dec-20	31-Mar-21	98.00	5.83	
					365.00	23.35	
8	HDFC Bank Limited-VII	7.450%	01-Apr-20	31-May-20	61.00	4.54	6.2982%
		6.300%	01-Jun-20	23-Dec-20	206.00	12.98	
		5.950%	24-Dec-20	31-Mar-21	98.00	5.83	
					365.00	23.35	
9	HDFC Bank Limited-IX D-3	6.300%	30-Jun-20	23-Dec-20	177.00	11.15	6.1733%
		5.950%	24-Dec-20	31-Mar-21	98.00	5.83	
					275.00	16.98	
10	HDFC Bank Limited-IX D-4	6.300%	24-Aug-20	23-Dec-20	122.00	7.69	6.1441%
		5.950%	24-Dec-20	31-Mar-21	98.00	5.83	
					220.00	13.52	
11	HDFC Bank Limited-IX D-10	5.950%	24-Dec-20	31-Mar-21	98.00	5.83	5.9500%
					98.00	5.83	
12	ICICI Bank-VII	6.000%	30-Dec-20	31-Mar-21	92.00	5.52	6.0000%
13	PNB-IV	7.650%	01-Apr-20	03-May-20	33.00	2.52	6.8987%
		7.200%	04-May-20	03-Jun-20	31.00	2.23	
		7.050%	04-Jun-20	03-Aug-20	61.00	4.30	
		6.800%	04-Aug-20	03-Nov-20	92.00	6.26	
		6.700%	04-Nov-20	20-Dec-20	47.00	3.15	
		6.500%	21-Dec-20	31-Mar-21	101.00	6.57	
					365.00	25.03	
14	Jammu & Kashmir Bank-IV	7.600%	01-Apr-20	30-Apr-20	30.00	2.28	6.6854%
		7.250%	01-May-20	31-May-20	31.00	2.25	
		7.200%	01-Jun-20	30-Jun-20	30.00	2.16	
		7.150%	01-Jul-20	31-Jul-20	31.00	2.22	
		7.000%	01-Aug-20	31-Aug-20	31.00	2.17	
		6.850%	01-Sep-20	26-Nov-20	87.00	5.96	
		5.850%	27-Nov-20	31-Mar-21	125.00	7.35	
					365.00	24.39	

पवन देव जनीता/PAWAN DEV JANITA
उप महाप्रबंधक (वाणिज्य)
Dep. General Manager (Commercial)
एन टी पी सी लिमिटेड/ NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

15	Karnataka Bank Ltd II	6.100%	01-Apr-20	27-Jun-20	88.00	5.37	5.3767%
		5.000%	28-Jun-20	27-Sep-20	92.00	4.60	
		5.200%	28-Sep-20	31-Mar-21	185.00	9.68	
					365.00	19.65	
16	Punjab National Bank III	7.800%	01-Apr-20	03-May-20	33.00	2.52	6.8587%
		7.200%	04-May-20	03-Jun-20	31.00	2.23	
		7.050%	04-Jun-20	03-Aug-20	61.00	4.30	
		6.900%	04-Aug-20	03-Nov-20	92.00	6.35	
		6.700%	04-Nov-20	20-Dec-20	47.00	3.15	
		6.500%	21-Dec-20	31-Mar-21	101.00	6.57	
					365.00	25.03	
17	State Bank of India - VII	7.650%	01-Apr-20	13-May-20	43.00	3.29	6.8580%
		7.000%	14-May-20	13-Aug-20	92.00	6.44	
		6.850%	14-Aug-20	31-Mar-21	230.00	15.30	
					365.00	25.02	
18	State Bank of India - IX	7.650%	01-Apr-20	13-May-20	43.00	3.29	6.8580%
		7.000%	14-May-20	13-Aug-20	92.00	6.44	
		6.850%	14-Aug-20	31-Mar-21	230.00	15.30	
					365.00	25.02	
19	State Bank of India - X	7.500%	01-Apr-20	24-Jun-20	85.00	6.38	6.8732%
		6.750%	25-Jun-20	24-Sep-20	92.00	6.21	
		6.650%	25-Sep-20	31-Mar-21	188.00	12.50	
					365.00	25.09	
20	Vijaya Bank IV	7.550%	01-Apr-20	12-Apr-20	12.00	0.91	7.2879%
		7.400%	13-Apr-20	12-May-20	30.00	2.22	
		7.350%	13-May-20	12-Jun-20	31.00	2.28	
		7.200%	13-Jun-20	12-Jul-20	30.00	2.16	
		7.150%	13-Jul-20	23-Aug-20	42.00	3.00	
					145.00	10.57	
21	Vijaya Bank V	7.550%	01-Apr-20	12-Apr-20	12.00	0.91	7.2879%
		7.400%	13-Apr-20	12-May-20	30.00	2.22	
		7.350%	13-May-20	12-Jun-20	31.00	2.28	
		7.200%	13-Jun-20	12-Jul-20	30.00	2.16	
		7.150%	13-Jul-20	23-Aug-20	42.00	3.00	
					145.00	10.57	

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Dep... General Manager (Commercial)
एन.टी.पी.सी. लि./NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

INTEREST RATE MOVEMENT FY 2021-22							
S.NO.	BANK	RATE OF INTEREST	From	To	Number of Days	Product	Weighted Average Rate of Interest
1	Bank Of India-IV	6.00%	01-04-2021	31-03-2022	365	21.90	6.00%
2	Corporation Bank-III	6.00%	01-04-2021	31-03-2022	365	21.90	6.00%
3	HDFC Bank Limited-III	5.95%	01-04-2021	31-03-2022	365	21.72	5.95%
4	HDFC Bank Limited-V	5.95%	01-04-2021	31-03-2022	365	21.72	5.95%
5	HDFC VII	5.95%	01-04-2021	31-03-2022	365	21.72	5.95%
6	HDFC III	5.95%	01-04-2021	31-03-2022	365	21.72	5.95%
7	ICICI Bank-VII	6.24%	01-04-2021	29-06-2021	90	5.62	6.36%
		6.30%	30-06-2021	29-09-2021	92	5.80	
		6.35%	30-09-2021	29-12-2021	91	5.78	
		6.55%	30-12-2021	28-03-2022	90	5.90	
		6.84%	30-03-2022	31-03-2022	2	0.14	
8	Jammu & Kashmir Bank Ltd-IV	5.88%	01-04-2021	31-03-2022	365	21.46	5.88%
9	Punjab National Bank III	6.20%	01-04-2021	28-09-2021	179	10.73	5.99%
		5.80%	29-09-2021	31-03-2022	192	11.14	
10	Punjab National Bank IV	6.20%	01-04-2021	28-09-2021	179	10.73	5.99%
		5.80%	29-09-2021	31-03-2022	192	11.14	
11	State Bank of India-VIII	6.65%	01-04-2021	31-03-2022	365	24.27	6.65%
12	State Bank of India - IX	6.65%	01-04-2021	31-03-2022	365	24.27	6.65%
13	State Bank of India - X	6.65%	01-04-2021	31-03-2022	365	24.27	6.65%

PAWAN DEV JAMTA
General Manager (Corporate)
NTPC LIMITED
EDC-A,EA, Sector-24, Noida-201301 (U.P.)

INTEREST RATE MOVEMENT FY 2022-23							
S.NO.	BANK	RATE OF INTEREST	From	To	Number	Product	Weighted Average Rate of Inerest
1	Bank Of India-IV	6.00%	01-04-2022	03-05-2022	33.00	1.98	
	Bank Of India-IV	6.40%	04-05-2022	07-06-2022	35.00	2.24	
	Bank Of India-IV	6.90%	08-06-2022	04-08-2022	58.00	4.00	
	Bank Of India-IV	7.40%	05-08-2022	29-09-2022	56.00	4.14	
	Bank Of India-IV	7.90%	30-09-2022	23-11-2022	55.00	4.35	
	Bank Of India-IV	7.55%	24-11-2022	06-12-2022	13.00	0.98	
	Bank Of India-IV	7.90%	07-12-2022	07-02-2023	63.00	4.98	
	Bank Of India-IV	8.15%	08-02-2023	31-03-2023	52.00	4.24	
	Bank Of India-IV						
	Bank Of India-IV						
					365.00	26.91	7.3719%
2	Corporation Bank-III	6.00%	01-04-2022	10-05-2022	40.00	2.40	
	Corporation Bank-III	6.40%	11-05-2022	10-06-2022	31.00	1.98	
	Corporation Bank-III	6.90%	11-06-2022	10-08-2022	61.00	4.21	
	Corporation Bank-III	7.40%	11-08-2022	10-10-2022	61.00	4.51	
	Corporation Bank-III	7.90%	11-10-2022	10-12-2022	61.00	4.82	
	Corporation Bank-III	8.25%	11-12-2022	29-12-2022	19.00	1.57	
	Corporation Bank-III	7.50%	30-12-2022	10-01-2023	12.00	0.90	
	Corporation Bank-III	7.65%	11-01-2023	10-02-2023	31.00	2.37	
	Corporation Bank-III	7.90%	11-02-2023	31-03-2023	49.00	3.87	
					365.00	26.64	7.2975%
3	HDFC Bank Limited-III	5.95%	01-04-2022	23-05-2022	53.00	3.15	
	HDFC Bank Limited-III	6.35%	24-05-2022	23-06-2022	31.00	1.97	
	HDFC Bank Limited-III	6.85%	24-06-2022	23-08-2022	61.00	4.18	
	HDFC Bank Limited-III	7.35%	24-08-2022	23-10-2022	61.00	4.48	
	HDFC Bank Limited-III	7.85%	24-10-2022	23-12-2022	61.00	4.79	
	HDFC Bank Limited-III	8.20%	24-12-2022	31-12-2022	8.00	0.66	
	HDFC Bank Limited-III	7.95%	01-01-2023	28-02-2023	59.00	4.69	
	HDFC Bank Limited-III	8.01%	01-03-2023	31-03-2023	31.00	2.48	
					365.00	26.40	7.2335%
4	HDFC Bank Limited-V	5.95%	01-04-2022	23-05-2022	53.00	3.15	
	HDFC Bank Limited-V	6.35%	24-05-2022	23-06-2022	31.00	1.97	
	HDFC Bank Limited-V	6.85%	24-06-2022	23-08-2022	61.00	4.18	
	HDFC Bank Limited-V	7.35%	24-08-2022	23-10-2022	61.00	4.48	
	HDFC Bank Limited-V	7.85%	24-10-2022	23-12-2022	61.00	4.79	
	HDFC Bank Limited-V	8.20%	24-12-2022	31-12-2022	8.00	0.66	
	HDFC Bank Limited-V	7.95%	01-01-2023	28-02-2023	59.00	4.69	
	HDFC Bank Limited-V	8.01%	01-03-2023	31-03-2023	31.00	2.48	
					365.00	26.40	7.2335%

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (सचिवालय)
Deputy General Manager (Co-ordinator)
एन.टी.पी.सी. लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

5	HDFC Bank Limited-VII	5.95%	01-04-2022	23-05-2022	53.00	3.15	
	HDFC Bank Limited-VII	6.35%	24-05-2022	23-06-2022	31.00	1.97	
	HDFC Bank Limited-VII	6.85%	24-06-2022	23-08-2022	61.00	4.18	
	HDFC Bank Limited-VII	7.35%	24-08-2022	23-10-2022	61.00	4.48	
	HDFC Bank Limited-VII	7.85%	24-10-2022	23-12-2022	61.00	4.79	
	HDFC Bank Limited-VII	8.20%	24-12-2022	31-12-2022	8.00	0.66	
	HDFC Bank Limited-VII	7.95%	01-01-2023	28-02-2023	59.00	4.69	
	HDFC Bank Limited-VII	8.01%	01-03-2023	31-03-2023	31.00	2.48	
					365.00	26.40	7.2335%
6	HDFC-IX	5.95%	01-04-2022	23-05-2022	53.00	3.15	
	HDFC-IX	6.35%	24-05-2022	23-06-2022	31.00	1.97	
	HDFC-IX	6.85%	24-06-2022	23-08-2022	61.00	4.18	
	HDFC-IX	7.35%	24-08-2022	23-10-2022	61.00	4.48	
	HDFC-IX	7.85%	24-10-2022	23-12-2022	61.00	4.79	
	HDFC-IX	8.20%	24-12-2022	31-12-2022	8.00	0.66	
	HDFC-IX	7.95%	01-01-2023	28-02-2023	59.00	4.69	
	HDFC-IX	8.01%	01-03-2023	31-03-2023	31.00	2.48	
					365.00	26.40	7.2335%
7	ICICI Bank-VII	8.10%	30-03-2023	31-03-2023	2.00	0.16	
					2.00	0.16	8.1000%
8	Jammu & Kashmir Bank-IV	5.88%	01-04-2022	26-05-2022	56.00	3.29	
	Jammu & Kashmir Bank-IV	6.28%	27-05-2022	26-07-2022	61.00	3.83	
	Jammu & Kashmir Bank-IV	6.78%	27-07-2022	26-09-2022	62.00	4.20	
	Jammu & Kashmir Bank-IV	7.28%	27-09-2022	26-11-2022	61.00	4.44	
	Jammu & Kashmir Bank-IV	7.78%	27-11-2022	30-12-2022	34.00	2.65	
	Jammu & Kashmir Bank-IV	7.73%	31-12-2022	26-03-2023	86.00	6.65	
		7.98%	27-03-2023	31-03-2023	5.00	0.40	
					365.00	25.46	6.9753%
9	PNB-IV	5.80%	01-04-2022	20-06-2022	81.00	4.70	
	PNB-IV	6.70%	21-06-2022	31-08-2022	72.00	4.82	
	PNB-IV	7.20%	01-09-2022	30-09-2022	30.00	2.16	
	PNB-IV	7.70%	01-10-2022	31-12-2022	92.00	7.08	
	PNB-IV	8.05%	01-01-2023	28-02-2023	59.00	4.75	
	PNB-IV	8.30%	01-03-2023	31-03-2023	31.00	2.57	
					365.00	26.09	7.1475%

पवन देव जमाटी/PAWAN DEV JAMTA
उप महाप्रबन्धक (प्राप्तिविधि)
Dep. Chief Manager (Commercial)
एन.टी.पी.सी. लिमिटेड / NTPC LIMITED
EOC, 3-4A, Sector-24, Noida-201301 (U.P.)

10	Punjab National Bank III	5.80%	01-04-2022	20-06-2022	81.00	4.70	
	Punjab National Bank III	6.70%	21-06-2022	31-08-2022	72.00	4.82	
	Punjab National Bank III	7.20%	01-09-2022	30-09-2022	30.00	2.16	
	Punjab National Bank III	7.70%	01-10-2022	31-12-2022	92.00	7.08	
	Punjab National Bank III	8.05%	01-01-2023	28-02-2023	59.00	4.75	
	Punjab National Bank III	8.10%	01-03-2023	31-03-2023	31.00	2.57	
					365.00	26.09	7.1475%
11	State Bank of India - IX	6.65%	01-04-2022	13-05-2022	43.00	2.86	
	State Bank of India - IX	6.75%	14-05-2022	13-08-2022	92.00	6.21	
	State Bank of India - IX	7.15%	14-08-2022	13-11-2022	92.00	6.58	
	State Bank of India - IX	7.60%	14-11-2022	13-02-2023	92.00	6.99	
	State Bank of India - IX	8.00%	14-02-2023	31-03-2023	46.00	3.68	
					365.00	26.32	7.2108%
12	State Bank of India - VIII	6.65%	01-04-2022	13-05-2022	43.00	2.86	
	State Bank of India - VIII	6.75%	14-05-2022	13-08-2022	92.00	6.21	
	State Bank of India - VIII	7.15%	14-08-2022	13-11-2022	92.00	6.58	
	State Bank of India - VIII	7.60%	14-11-2022	13-02-2023	92.00	6.99	
	State Bank of India - VIII	8.00%	14-02-2023	31-03-2023	46.00	3.68	
					365.00	26.32	7.2108%
13	State Bank of India - X	6.65%	01-04-2022	24-06-2022	85.00	5.65	
	State Bank of India - X	7.05%	25-06-2022	24-09-2022	92.00	6.49	
	State Bank of India - X	7.35%	25-09-2022	24-12-2022	91.00	6.69	
	State Bank of India - X	8.00%	25-12-2022	24-03-2023	90.00	7.20	
	State Bank of India - X	8.10%	25-03-2023	31-03-2023	7.00	0.57	
					365.00	26.59	7.2860%

पवन देव जामट/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्य)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

INTEREST RATE MOVEMENT FY 2023-24							
S.NO.	BANK	RATE OF INTEREST	From	To	Number of Days	Product	Weighted Average Rate of Interest
1	Bank Of India-IV	8.00%	01-Apr-23	31-Mar-24	366.00	29.28	
					366.00	**29.28**	**8.00%**
2	Corporation Bank-II	7.00%	01-Apr-23	10-Jan-24	285.00	22.52	
	Corporation Bank-III	8.10%	11-Jan-24	31-Mar-24	81.00	6.56	
					366.00	**29.08**	**7.94%**
3	HDFC Bank Limited-III	8.01%	01-Apr-23	31-May-23	61.00	4.89	
	HDFC Bank Limited-III	7.95%	01-Jun-23	31-Mar-24	305.00	24.25	
					366.00	**29.13**	**7.96%**
4	HDFC Bank Limited-V	8.01%	01-Apr-23	31-May-23	61.00	4.89	
	HDFC Bank Limited-V	7.95%	01-Jun-23	31-Mar-24	305.00	24.25	
					366.00	**29.13**	**7.96%**
5	HDFC Bank Limited-VII	8.01%	01-Apr-23	31-May-23	61.00	4.89	
	HDFC Bank Limited-VII	7.95%	01-Jun-23	31-Mar-24	305.00	24.25	
					366.00	**29.13**	**7.96%**
6	HDFC Bank Limited-30	7.74%	01-Sep-23	10-Sep-23	10.00	0.77	
	HDFC Bank Limited-30	7.80%	11-Sep-23	10-Oct-23	30.00	2.34	
	HDFC Bank Limited-III	7.77%	11-Oct-23	10-Nov-23	31.00	2.41	
	HDFC Bank Limited-30	7.92%	11-Nov-23	10-Dec-23	30.00	2.38	
	HDFC Bank Limited-III	7.97%	11-Dec-23	10-Jan-24	31.00	2.47	
	HDFC Bank Limited-30	7.89%	11-Jan-24	10-Feb-24	31.00	2.45	
	HDFC Bank Limited-30	7.67%	11-Feb-24	10-Mar-24	29.00	2.22	
	HDFC Bank Limited-30	7.84%	11-Mar-24	31-Mar-24	21.00	1.65	
					213.00	**16.69**	**7.83%**
7	HDFC Bank Limited-30 D-3	7.71%	01-Dec-23	12-Dec-23	12.00	0.93	
	HDFC Bank Limited-30 D-3	7.78%	13-Dec-23	12-Jan-24	31.00	2.41	
	HDFC Bank Limited-30 D-3	7.70%	13-Jan-24	12-Feb-24	31.00	2.39	
	HDFC Bank Limited-30 D-3	7.65%	13-Feb-24	12-Mar-24	29.00	2.22	
	HDFC Bank Limited-30 D-3	7.60%	13-Mar-24	31-Mar-24	19.00	1.44	
					123.00	**9.39**	**7.63%**
8	HDFC Bank Limited-30 D-4	7.79%	01-Jan-24	12-Jan-24	12.00	0.93	
	HDFC Bank Limited-30 D-4	7.78%	13-Jan-24	12-Feb-24	31.00	2.39	
	HDFC Bank Limited-30 D-4	7.65%	13-Feb-24	12-Mar-24	29.00	2.22	
	HDFC Bank Limited-30 D-4	7.60%	13-Mar-24	31-Mar-24	19.00	1.44	
					91.00	**6.98**	**7.67%**

पवन देव जांगड़/PAWAN DEV JANTA
उप महाप्रबंधक (वाणिज्य)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

9	HDFC-IX	8.01%	01-Apr-23	31-May-23	61.00	6.89	
	HDFC-IX	7.99%	01-Jun-23	31-Mar-24	305.00	24.25	
					366.00	**29.13**	**7.96%**
10	ICICI Bank-VII	8.10%	01-Apr-23	02-Sep-23	155.00	12.56	
	ICICI Bank-VII	8.15%	03-Sep-23	12-Sep-23	10.00	0.82	
	ICICI Bank-VII	8.00%	13-Sep-23	31-Mar-24	201.00	16.08	
					366.00	**29.45**	**8.05%**
11	Jammu & Kashmir Bank-IV	7.98%	01-Apr-23	31-Mar-24	366.00	29.21	
					366.00	**29.21**	**7.98%**
12	PNB-IV	7.90%	01-Apr-23	31-Mar-24	366.00	28.91	
					366.00	**28.91**	**7.90%**
13	Punjab National Bank-II	7.90%	01-Apr-23	31-Mar-24	366.00	28.91	
					366.00	**28.91**	**7.90%**
14	State Bank of India - IX	8.00%	01-Apr-23	13-May-23	43.00	3.44	
	State Bank of India - IX	8.10%	14-May-23	13-Aug-23	92.00	7.45	
	State Bank of India - IX	8.15%	14-Aug-23	13-Feb-24	184.00	15.00	
	State Bank of India - IX	8.20%	14-Feb-24	31-Mar-24	47.00	3.85	
					366.00	**29.74**	**8.13%**
15	State Bank of India - VIII	8.00%	01-Apr-23	13-May-23	43.00	3.44	
	State Bank of India - VIII	8.10%	14-May-23	13-Aug-23	92.00	7.45	
	State Bank of India - VIII	8.15%	14-Aug-23	13-Feb-24	184.00	15.00	
	State Bank of India - VIII	8.20%	14-Feb-24	31-Mar-24	47.00	3.85	
					366.00	**29.74**	**8.13%**
16	State Bank of India - X	8.10%	01-Apr-23	24-Sep-23	177.00	14.34	
	State Bank of India - X	8.15%	25-Sep-23	24-Dec-23	91.00	7.42	
	State Bank of India - X	8.20%	25-Dec-23	31-Mar-24	98.00	8.04	
					366.00	**29.79**	**8.14%**

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (परियोजना)
Dy. General Manager (Commercial)
एन टी पी सी विद्युत व्यापार निगम लिमिटेड/NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

19-12-2011	1340[illegible]	Power Finance Corporation - PAWR SARKARDH	73.65.00.000 PAWR SARKARDH	7.9800%	01-Apr-12	31-Dec-19	275	4,22,45,000
28-03-2012	1340[illegible]	Power Finance Corporation - PAWR SARKARDH	35.00.00.000 PAWR SARKARDH	8.2000%	01-Apr-12	31-Dec-19	275	2,17,22,397
19-12-2011	1340[illegible]	Power Finance Corporation - PAWR SARKARDH	73.65.00.000 PAWR SARKARDH	7.9800%	01-Apr-12	14-Oct-20	197	3,02,39,726
28-03-2012	1340[illegible]	Power Finance Corporation - PAWR SARKARDH	31.00.00.000 PAWR SARKARDH	8.2000%	01-Apr-12	14-Oct-20	197	1,55,45,808

पवन देव जमरा/PAWAN DEV JAMTA
उप महाप्रबंधक (कंपनी सचिव)
Deputy General Manager (Company Sec.)
उप म. प्र. कं. सचिव/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Name of the Loan	From	To	No of Days	Floating Rate of Interest	Product	Weighted Average Rate of Interest
JPY Eqn. $400 Million Drawl II	24-07-2023	19-11-2023	114.00	1.20000%	1.37	
JPY Eqn. $400 Million Drawl II	15-11-2023	31-03-2024	138.00	1.21218%	1.67	1.2100%
JPY Eqn. $400 Million Drawl III	25-09-2023	14-11-2023	31.00	1.20000%	0.61	
JPY Eqn. $400 Million Drawl III	15-11-2023	31-03-2024	138.00	1.21218%	1.67	1.2122%
JPY Eqn. $400 Million Drawl IV	22-12-2023	31-03-2024	101.00	1.21880%	1.23	1.2222%

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (कॉर्पोरेशन)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Refinancing of loans during 2019-24

NTPC Ltd.

Pakri Barwadih Integrated Mine

(Amount Rs Lakhs)

2020-21

Existing loan	Existing Rate	Date of Refinancing	Revised Loan	Revised Rate	Refinanced amount	Date	Gain Sharing
Vijaya bank IV	7.1500%	24.09.2020	HDFC IX	6.30%	173.88087	0.8000%	0.4250%
Vijaya bank V	7.1500%	24.09.2020	HDFC IX	6.30%	4142.8871	0.8000%	0.4250%
Canara Bank III	7.2000%	24.09.2020	HDFC IX	6.30%	5400	0.9000%	0.4500%
PFC T-8	7.0800%	19.10.2020	Bonds - 73	5.45%	7300	2.2500%	1.1150%
PFC T-12	8.0200%	19.10.2020	Bonds - 73	5.45%	3800	2.7500%	1.3900%
Bank of India III	8.7500%	07.12.2020	Bank of India IV	6.30%	20000	0.7000%	0.3500%

पवन देव जमता/PAWAN DEV JAMTA



PART- IV
FORM- 15

Name of the Petitioner : NTPC Ltd.

Non-Tariff Income

Name of the Integrated Mine : Pakri Barwadih Coal Mining Project

S. No.	Parameters	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1.	Income from sale of ordinary reports, if and as applicable	-	-	-	-	-	-
2.	Profit from supply of coal to CE, or non-coal sale of coal, if and as applicable	-	-	-	-	-	-
3.	Income from sale of land or buildings	-	-	-	-	-	-
4.	Income from sale of scrap	-	-	-	-	-	-
5.	Income from advertisements	-	-	-	-	-	-
6.	Others*	-	-	-	-	-	-

पवन देव जामाता/PAWAN DEV JAMATA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Details of Applicable Statutory Charges

FORM- IV
[See Rule 14]

Name of the Petitioner: NTPC Ltd
Name of the Integrated Mine: Pakri Barwadih

Particulars	Applicable Rate	Quantity	Amount (2019-20) (Rs.	Amount (2020-21) (Rs.	Amount (2021-22) (Rs.	Amount (2022-23) (Rs.	Amount (2023-24) (Rs.
Royalty	% of Coal Price	14%	110.00	146.17	182.48	182.00	171.44
GST under Reverse Charge Mechanism	% of Royalty	18%	18.71	26.31	32.84	32.76	30.86
District Mineral Foundation (DMF)	% of Royalty	30%	31.86	43.51	54.31	54.18	51.43
GST under Reverse Charge Mechanism	% of DMF	18%	5.63	7.83	9.78	9.75	9.26
National Mineral Exploration Trust (NMET)	% of Royalty	2%	1.04	1.46	1.82	1.82	1.71
GST under Reverse Charge Mechanism	% NMET	18%	0.19	0.26	0.32	0.33	0.31
Management Fee	As per Invoice		1.00	1.00	1.00	1.00	1.00
GST under Reverse Charge Mechanism	As per invoice	18%	0.18	0.18	0.18	0.18	0.18
CESS @ 10/MT and 50/MT-24	As per invoice	10.00		8.31	10.00	10.00	2.67
GST under Reverse Charge Mechanism	% of CESS @ 10/MT	18%		1.52	1.80	1.80	0.48
Forest Tax vide 01.10.20	As per invoice	17.26		10.00	17.00	12.00	12.00
GST under Reverse Charge Mechanism	% of Forest Tax	18%		1.55	3.06	2.16	2.16
Composite User Fees* (Inclusive of GST)	User Fees Rs 600/- for Each river				20.78	7.00	
GST Compensation Tax	As per invoice	400.00	436.00	400.00	400.00	400.00	400.00
GST on OBOT group	% of Mining Charges	18%	19.81	132.73	114.12	176.58	151.20
GST after adjusting Input Tax Credit	% on Taxable Transfer Value of Goods	5%	-41.23	-44.23	-46.47	-47.63	-48.12
GST on Transportation Charges	5% on transportation and 18% on loading & unloading		31.23	33.43	38.78	37.33	33.89
Total			724.39	778.29	784.98	778.74	824.04

* Fees as revised vide Rule 14 of MCR, 2015.
** Levy of cesses over the amount by Hon'ble High Court as at 1 June 22.

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Details of Mine Closure Expenses

PART- [illegible]
FORM- [illegible]

Name of the Petitioner: NTPC Ltd.
Name of the Integrated Mine: Tahal Renewable

Amount in Rs. Lakhs

1. Amount Deposited in Escrow Account prior to date of Commercial Operation (Rs.)	PV	[illegible]
2. Life of Mine over which amount is to be recovered (Yrs)	n	[illegible]
3. Borrowing Rate per year (%)	r	[illegible]
4. Amount recoverable per Year (Rs)	P = PV x r / [1-(1+r)^n]	[illegible]

A. Deposit after the date of Commercial operation - when mine closure is in scope of Generating Company (GoP)

Production Year No. (A)	Amount of Deposit in Escrow account (B)	Date of Deposit in Escrow account (C)	Interest Earned/Accrued in Escrow account (D)	Amount received from Escrow account towards Mine closure (E)	Adjustable Mine closure expense (F)
4	[illegible]	27.01.2020			[illegible]
5	[illegible]	27.01.2021			[illegible]
6	[illegible]	28.01.2022			[illegible]
7	[illegible]	28.01.2023			[illegible]
8	[illegible]	28.01.2024			[illegible]

B. Deposit after the date of Commercial operation - when mine closure is in scope of Mine Developer & Operator (MDO)

Production Year No. (A)	Amount of Deposit in Escrow account (B)	Date of Deposit in Escrow account (C)	Borrowing rate at weighted average rate of interest of actual loan (D)	Interest Earned/Accrued in Escrow account (E)	Amount received from Escrow account towards Mine closure (F)	Adjustment to be made in Input price as a part of Mine closure expense (G)
4	[illegible]	27.01.2020	[illegible]	[illegible]		[illegible]
5	[illegible]	27.01.2021	[illegible]	[illegible]		[illegible]
6	[illegible]	28.01.2022	[illegible]	[illegible]		[illegible]
7	[illegible]	28.01.2023	[illegible]	[illegible]		[illegible]
8	[illegible]	28.01.2024	[illegible]	[illegible]		[illegible]

(Petitioner)

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Dy. Genl. Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Details for GCV Advertised*					PART - IV FORM - [illegible]
Name of the Petitioner: NTPC Ltd. Name of the Designated Mine: Pakri Barwadih	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1. Declared GCV of Coal (Kcal/Kg)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2. Weighted Average GCV of Coal received in the year as reported in CCO (Kcal/Kg)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

*(i) The Coal Controller (CCO) declares the assessee quality of coal in terms of the grade and Petitioner is reporting the composite grade of the coal [illegible] the CCO
(ii) Communication to CCO in respect of Declared Grade of Coal in respective years is Attached to Annexure - I, to the Petition.
(iii) The grades mentioned above are as declared/updated.

पवन देव जामाटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Details of Assets De-capitalised during the period (2022-23)

PART- II
FORM -II

Name of the Petitioner : NTPC Ltd.
Name of the Integrated Mine : Pakri Barwadih

					(Amount in Rs.)	
S. No.	FY	Name of the Asset	Nature of de-capitalisation (whether claimed under exclusion or as additional capital expenditure)	Original Value of the Asset Capitalised	Year Put to use	Depreciation consumed till date of de-capitalisation
1		2	3	4.00	5.00	6.00
I	2022-23	Group of MBOA Assets				
(i)		Furniture and Fixtures	Additional capital expenditure	15,434.00	CoD of Mine (01.04.2015)	2,145.00
(ii)		Office Equipments other than Computers	Additional capital expenditure	55,588.00	CoD of Mine (01.04.2015)	5,445.33
(iii)		Computers and Software	Additional capital expenditure	1,86,241.50	CoD of Mine (01.04.2015)	29,684.43
	Total			2,59,569.00		35,437.76

(Petitioner)

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन.टी.पी.सी. लिमिटेड / NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

PART - IV
FORM - II

Details of Assets De-capitalised during the period (2023-24)

Name of the Publisher : NTPC Ltd.
Name of the Integrated Mine : Pakri Barwadih

					(Amount in Rs.)	
S. No.	FY	Name of the Asset	Nature of de-capitalisation (whether claimed under exclusion or as additional capital expenditure)	Original Value of the Asset Capitalised	Year Put to use	Depreciation recovered till date of de-capitalisation
1		1	2	4.00	5.00	6.00
1	2023-24	Group of NBCIA Assets				
(i)		Furniture and Fixtures	Additional capital expenditure	13,87,802.79	CoD of Mine 08.08.2015	2,35,311.06
(ii)		Office Equipments other than Computers	Additional capital expenditure	31,88,738.07	CoD of Mine 08.08.2015	8,32,140.72
(iii)		EDC, WP machines & AATCCSS equipment & Communication Equipment	Additional capital expenditure	27,41,885.60	CoD of Mine 08.08.2015	1,47,882.79
(iv)		Computers and Software	Additional capital expenditure	1,80,48,171.04	CoD of Mine 08.08.2015	14,87,104.41
Total				1,79,46,098.50		2,36,373.39

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PART- IV
FORM- E

Reconciliation of capitalization claimed vis-à-vis books of accounts

Name of the Petitioner: NTPC Ltd
Name of the Integrated Mine: Pakri Barwadih

(Amount in Rs. Lakh)

S. No.	Particulars	As on CoD i.e. 01.04.2019	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1	Closing Gross Block as per IND AS	2,70,685.28	3,35,072.78	2,79,331.58	4,02,028.53	4,74,819.78	4,88,271.53
	Ind-AS Adjustment - Leasehold Land		35,471.28	35,471.28	35,471.28	35,471.28	35,471.28
	Ind-AS Adjustment - Leasehold Building		52.12	52.12	52.12	52.12	52.12
	Ind-AS Adjustment -PPE	-383.74	-372.04	-371.97	-372.16	-372.16	-257.50
2	Ind-AS Adjustment -Site Restoration cost	16,453.00	18,243.00	18,243.00	18,243.00	18,243.00	16,032.00
3	**Closing Gross Block as per I GAAP**	**2,54,614.02**	**3,52,620.98**	**2,96,881.72**	**4,20,376.85**	**4,92,368.18**	**5,07,316.18**
4	Opening Gross Block as per IND AS		2,70,685.28	3,35,072.78	2,79,331.58	4,02,028.53	4,74,819.78
5	Add/Less: Adjustments towards Arbitration	-	-	-	-	-	9,909.88
6	Opening Gross Block as per I GAAP		2,54,614.02	3,52,620.98	2,96,881.72	4,20,376.85	4,92,368.18
7	**Total Additions as per books (G = 3 - 6)**	**2,54,614.02**	**98,006.96**	**-55,739.27**	**1,23,495.14**	**71,991.25**	**24,857.96**
8	Less: Additions pertaining to other Mines (give Mine wise breakup)	-					
8.1	Chatti Bariatu	39,245.80	4,244.00	-42,487.88	-	-	-
8.2	Karandari	27,013.31	12,043.18	-39,058.50	-21.39	-	-
8.3	Coal mining HQ	26.11		-26.11	-	-	-
8.4	PB-NW					417.22	1,221.68
9	**Net Additions pertaining to instant Mine**	**1,89,328.80**	**81,719.60**	**25,833.23**	**1,23,516.53**	**71,573.98**	**23,636.27**
10	Less: Exclusions (items not allowable / not claimed)	-	-182.35	-	-	-	-18,738.33
11	**Net Additional Capital Expenditure Claimed (on accrual basis) (I GAAP)**	1,89,328.80	81,837.02	25,833.23	1,23,516.53	71,573.98	42,374.60
12	Less: Un-discharged Liabilities	64,078.63	62,429.02	-6,299.08	20,675.25	-336.06	19,141.73
13	Add: Discharges of un-discharged liabilities	-	25,140.16	8,881.79	24,120.77	22,341.12	14,933.37
14	**Net Additional Capital Expenditure Claimed (on cash basis)**	**1,25,250.17**	**44,553.16**	**27,709.94**	**1,16,962.04**	**94,331.56**	**47,186.24**

(Petitioner)

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement showing Items/assets/works claimed under Exclusion

PART- IV
FORM- F

Name of the Petitioner: NTPC Ltd.
Name of the Integrated Mine: Pakri Barwadih
Date of Commercial Operation: 01.04.2019

(Amount in Rs. Lakh)

S. No.	Head of Work / Equipment		ACE Claimed under Exclusion for FY 2019-20				Justification
			Accrual basis (Indian GAAP)	Un- discharged Liability included in col. 3	Cash basis	IDC included in col. 3	
1	2		3	4	(5 = 3 - 4)	6	7
1	Inter Unit Transfer of MBEAs						Intercoal transfer is not allowed by the Hon'ble Commission for the purpose of tariff as these IUTs are of temporary nature. Hence, the same have been kept under exclusion.
	Asset	To/From					
(i)	Furniture and fixtures	To: Coal Mining HQ, Ranchi	-21.74	-	-21.74	-	
(ii)	Office Equipments other than Computers		-17.86	-	-17.86	-	
(iii)	Computers and Software		-59.00	-	-59.00	-	
(iv)	EDP, WP machines & SATCOM equipment & Communication Equipment		-2.83	-	-2.83	-	
	Total Exclusion Claimed		-102.33	-	-102.33	-	

(Petitioner)

Note: 1. Exclusions claimed on assets not allowed earlier should be supported by the specific reference of Commission Order date, Petition No., amount disallowed, etc.
2. For inter unit transfer, nature of transfer i.e. temporary or permanent should be mentioned. It is to be certified that exclusion sought in receiving station only and not in sending station or in both the station.

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement showing items/assets/works claimed under Exclusions	PART- IV FORM- F

Name of the Petitioner: NTPC Ltd.
Name of the Integrated Mine: Pakri Barwadih
Date of Commercial Operation: 01.04.2019

(Amount in Rs. Lakh)

S. No.	Head of Work / Equipment	ACE Claimed under Exclusion for FY 2023-24				Justification
		Accrual basis (Indian GAAP)	Un- discharged Liability included in col. 3	Cash basis	IDC included in col. 3	
1	2	3	4	(5 + 3 - 4)	6	7
i	Arbitration Award					It is submitted that an expenditure of Rs. 187.38 Crore in respect of award of arbitration in favour of earlier MDO M/s Thiess Minex India Pvt Ltd was capitalized as an UoD on accrual basis. Subsequently, same was discharged on cash basis in the FY 2019-20 based on deposition of Rs. 233 crore by NTPC with the Registrar, Delhi High Court in FY 2019-20. Therefore, a settlement agreement was signed between NTPC Ltd. and M/s Thiess Minex on 27.03.2024 under section 73(2) of the Arbitration and Conciliation Act, 1996 and as per the provisions of the Vivad Se Vishwas II (Contracted Disputes) Scheme. In terms of the settlement agreement, Rs 245.20 Crores was paid to Thiess Minex. As per the accounting practices, Rs. 187.38 Crore was transferred from the Balance Sheet to the P&L Account in FY 2023-24. However, Regulation 96(1)(a) provides for capitalization of the "expenditure for works required to be carried out for complying with directions or orders of any statutory authorities." Therefore, an amount of (-) Rs. 181.87 Crore has been claimed under exclusions in FY 2023-24. The balance amount of Rs 99.09 Crores (after adjusting the advance payment of Rs 36 Crore and Rs 62.91 Crores interest earned on amount deposited with Delhi High Court) has been claimed as Add cap in FY 2023-24. Hon'ble Commission may be pleased to allow the same.
(ii)	M/s Thiess Minex Arbitration award in 2023-24	-18,738.33	-	-18,738.33	-	
	Total Exclusion Claimed	-18,738.33	-	-18,738.33	-	

(Petitioner)

Note: 1. Exclusions claimed on assets not allowed earlier should be supported by the specific reference of Commission Order date, Petition No., amount disallowed, etc.
2. For inter-unit transfer, nature of transfer (as temporary or permanent should be mentioned. It is to be certified that exclusion sought in recurring stories only and not in sending stations in the first the station.

पवन देव जमता/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement of Liabilities
(To be given for relevant dates and year wise)

PART IV
FORM C

Name of the Petitioner: NTPC Ltd
Name of the Integrated Mines Pithead Thermal Power Station:

Details:

S. No.	Particulars	As on 31.03.2019			FY 2019-20			FY 2020-21			FY 2021-22		
		Accrual Basis	Tax-deducted Liabilities	Cash Basis	Accrual Basis	Tax-deducted Liabilities	Cash Basis	Accrual Basis	Tax-deducted Liabilities	Cash Basis	Accrual Basis	Tax-deducted Liabilities	Cash Basis
A	(a) Opening Gross Block Amount as per books (Indian GAAP)	1,89,528.79	44,078.63	1,37,750.16	1,89,528.79	44,078.63	1,37,750.16	2,33,679.34	1,01,367.47	1,69,171.88	2,61,312.76	99,480.78	1,28,796.03
	(b) Amount of IDC in A(a) above	23,849.34		23,849.34	23,849.34	-	23,849.34	30,962.48	-	30,962.48	33,962.48	-	33,962.48
	(c) Amount of FC in A(a) above	-	-	-	-	-	-	-	-	-	-	-	-
	(d) Amount of FERV in A(a) above	-	-	-	-	-	-	-	-	-	-	-	-
	(e) Amount of Hedging Cost in A(a) above	-	-	-	-	-	-	-	-	-	-	-	-
	(f) Amount of SDC in A(a) above	3,781.98		3,781.98	3,781.98	-	3,781.98	3,781.98	-	3,781.98	3,781.98	-	3,781.98
B	(a) Additions to Gross Block Amount during the period (Indian GAAP)	-	-	-	38,789.84	45,826.66	41,137.84	35,846.61	8,284.47	19,823.24	19,133.87	10,442.39	3,710.95
	(b) Amount of IDC in B(a) above	-	-	-									
	(c) Amount of FC in B(a) above	-	-	-									
	(d) Amount of FERV in B(a) above	-	-	-									
	(e) Amount of Hedging Cost in B(a) above	-	-	-									
	(f) Amount of SDC in B(a) above	-	-	-									
C	(a) Additions to Gross Block Amount during the period (Transferred from CWIP) (Indian GAAP)				(9,261.08)	502.74	(9,898.76)	0.23	0.49	2.09	1,60,365.44	4,372.38	1,86,126.93
	(b) Amount of IDC in C(a) above	-	-	-	4,211.18	-	4,211.18				40,051.44		40,051.44
	(c) Amount of FC in C(a) above	-	-	-									
	(d) Amount of FERV in C(a) above	-	-	-									
	(e) Amount of Hedging Cost in C(a) above	-	-	-									
	(f) Amount of SDC in C(a) above	-	-	-									
D	(a) Deletion to Gross Block Amount during the period (Indian GAAP)	-	-	-									
	(b) Amount of IDC in D(a) above	-	-	-									
	(c) Amount of FC in D(a) above	-	-	-									
	(d) Amount of FERV in D(a) above	-	-	-									
	(e) Amount of Hedging Cost in D(a) above	-	-	-									
	(f) Amount of SDC in D(a) above	-	-	-									
E	(a) Closing Gross Block Amount as per books (Indian GAAP)	2,89,528.79	44,078.63	2,37,250.16	2,33,875.34	1,01,347.47	1,99,171.88	2,64,372.76	99,480.78	2,28,796.03	3,80,829.26	98,949.24	2,31,417.21
	(b) Amount of IDC in E(a) above	23,849.34	-	23,849.34	30,962.48	-	30,962.48	30,962.48	-	30,962.48	73,983.92	-	73,983.92
	(c) Amount of FC in E(a) above	-	-	-	-	-	-	-	-	-	-	-	-
	(d) Amount of FERV in E(a) above	-	-	-	-	-	-	-	-	-	-	-	-
	(e) Amount of Hedging Cost in E(a) above	-	-	-	-	-	-	-	-	-	-	-	-
	(f) Amount of SDC in E(a) above	3,781.98	-	3,781.98	3,781.98	-	3,781.98	3,781.98	-	3,781.98	3,781.98	-	3,781.98

पवन देव जाटी/PAWAN DEV JAMTA
उप महाप्रबंधक (वित्त)/Deputy General Manager (Commercial)
एन टी पी सी/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Name of the Petitioner: NTPC Ltd Name of the Integrated Mines/ Pithead Station/Mine	Statement of Capital cost (To be given for relevant dates and year wise)	Form-9 PSWM-G

S. No.	Particulars	FY 2021-22			FY 2022-23		
		Accrual Basis	On discharged Liabilities	Cash Basis	Accrual Basis	On discharged Liabilities	Cash Basis
A	(a) Opening Gross Block Amount as per books (Indian GAAP)	1,85,029.29	96,945.54	2,31,437.31	4,96,600.26	77,307.67	1,07,795.66
	(b) Amount of IDC in (a) above	76,981.84	-	76,981.84	1,21,968.77	-	1,21,968.77
	(c) Amount of FC in (a) above	-	-	-	-	-	-
	(d) Amount of FERV in (a) above	-	-	-	-	-	-
	(e) Amount of Hedging Cost in (a) above	-	-	-	-	-	-
	(f) Amount of SCOC in (a) above	2,782.98	-	2,782.98	2,782.98	-	2,782.98
B	(a) Additions to Gross Block Amount during the period (i) Non-Purchased (Indian GAAP)	2,809.03	2,344.66	5,784.43	27,638.11	6,976.61	17,639.21
	(b) Amount of IDC in (B)(a) above				-		-
	(c) Amount of FC in (B)(a) above						-
	(d) Amount of FERV in (B)(a) above						-
	(e) Amount of Hedging Cost in (B)(a) above						-
	(f) Amount of SCOC in (B)(a) above						-
C	(a) Additions to Gross Block Amount during the period (i) Capitalised from CWIP (Indian GAAP)	89,584.40	3,618.79	46,360.43	9,077.28	1,811.49	9,845.61
	(b) Amount of IDC in (C)(a) above	36,984.93		36,984.93			-
	(c) Amount of FC in (C)(a) above						-
	(d) Amount of FERV in (C)(a) above						-
	(e) Amount of Hedging Cost in (C)(a) above						-
	(f) Amount of SCOC in (C)(a) above						-
D	(a) Deletions to Gross Block Amount during the period (Indian GAAP)						-
	(b) Amount of IDC in (D)(a) above						-
	(c) Amount of FC in (D)(a) above						-
	(d) Amount of FERV in (D)(a) above						-
	(e) Amount of Hedging Cost in (D)(a) above						-
	(f) Amount of SCOC in (D)(a) above						-
E	(a) Closing Gross Block Amount as per books (Indian GAAP)	4,39,683.26	77,307.67	3,03,707.14	4,80,289.67	68,896.83	3,21,751.03
	(b) Amount of IDC in (E)(a) above	1,21,968.77	-	1,21,968.77	1,21,968.77	-	1,21,968.77
	(c) Amount of FC in (E)(a) above	-	-	-	-	-	-
	(d) Amount of FERV in (E)(a) above	-	-	-	-	-	-
	(e) Amount of Hedging Cost in (E)(a) above	-	-	-	-	-	-
	(f) Amount of SCOC in (E)(a) above	2,782.98	-	2,782.98	2,782.98	-	2,782.98

(Signature)

पवन देव जमता/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement of Capital Works in Progress
(To be given for relevant dates and year wise)

PART-IV
FORM- H

Name of the Petitioner: NTPC Ltd
Name of the Integrated Mine: Pakri Barwadih

(Amount in Rs. Lakh)

S. No.	Particulars	As on 01.04.2019			FY 2019-20			FY 2020-21		
		Accrual Basis	Un-discharged Liabilities	Cash Basis	Accrual Basis	Un-discharged Liabilities	Cash Basis	Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening CWIP as per books (Indian GAAP)	1,27,573.16	18,040.93	1,04,494.22	1,27,573.16	18,040.93	1,04,494.22	1,39,565.29	13,669.90	1,25,676.28
	b) Amount of IDC in A(a) above	44,715.73		44,715.73	44,715.73	-	44,715.73	48,589.09	-	48,589.09
	c) Amount of FC in A(a) above				-	-	-	-	-	-
	d) Amount of FERV in A(a) above				-	-	-	-	-	-
	e) Amount of Hedging Cost in A(a) above				-	-	-	-	-	-
	f) Amount of IEDC in A(a) above				-	-	-	-	-	-
B	(a) Addition in CWIP during the period(Indian GAAP)	-	-	-	34,945.57		34,945.57	34,234.31	1,483.38	17,771.11
	b) Amount of IDC in B(a) above	-	-	-	10,886.46		10,886.46	9,902.53		9,902.53
	c) Amount of FC in B(a) above	-	-	-			-			-
	d) Amount of FERV in B(a) above	-	-	-			-			-
	e) Amount of Hedging Cost in B(a) above	-	-	-			-			-
	f) Amount of IEDC in B(a) above	-	-	-			-			-
C	a) Transferred to Cross Block Account during the period (Indian GAAP)	-	-	-	(9,541.98)	665.34	10,889.66	3.71	0.48	3.89
	b) Amount of IDC in C(a) above	-	-	-	4,213.35		4,213.35			-
	c) Amount of FC in C(a) above	-	-	-			-			-
	d) Amount of FERV in C(a) above	-	-	-			-			-
	e) Amount of Hedging Cost in C(a) above	-	-	-			-			-
	f) Amount of IEDC in C(a) above	-	-	-			-			-
D	(a) Closing CWIP as per books (Indian GAAP)	1,27,573.16	18,040.93	1,04,494.22	1,39,568.28	(13,816.94)	1,25,676.28	1,39,797.59	15,153.80	1,38,707.39
	(b) Amount of IDC in D(a) above	44,715.73		44,715.73	48,589.09	-	48,589.09	58,491.62	-	58,491.62
	(c) Amount of FC in D(a) above						-			-
	(d) Amount of FERV in D(a) above						-			-
	(e) Amount of Hedging Cost in D(a) above						-			-
	(f) Amount of IEDC in D(a) above						-			-

(Petitioner)

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Name of the Petitioner: NTPC Ltd
Name of the Integrated Mine: Pakri Barwadih

Statement of Capital Works in Progress
(To be given for relevant dates and year wise)

PART- IV
FORM- II

(Amount in Rs. Lakh)

S. No.	Particulars	FY 2021-22			FY 2022-23			FY 2023-24		
		Accrual Basis	Un-discharged Liabilities	Cash Basis	Accrual Basis	Un-discharged Liabilities	Cash Basis	Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening CWIP as per books (Indian GAAP)	1,38,797.39	15,365.46	1,43,432.13	71,291.75	5,648.14	65,042.60	23,874.96	2,989.28	20,851.68
	b) Amount of IDC in A(a) above	58,491.62	-	58,491.62	27,004.63	-	27,004.63	1,342.42	-	1,342.42
	c) Amount of FC in A(a) above	-	-	-	-	-	-	-	-	-
	d) Amount of FERV in A(a) above	-	-	-	-	-	-	-	-	-
	e) Amount of Hedging Cost in A(a) above	-	-	-	-	-	-	-	-	-
	f) Amount of IEDC in A(a) above	-	-	-	-	-	-	-	-	-
B	a) Addition to CWIP during the period(Indian GAAP)	16,858.81	259.31	16,297.51	21,767.69	2,386.39	18,581.23	24,145.91	2,756.82	21,429.10
	b) Amount of IDC in B(a) above	9,434.45		9,434.45	5,822.72		5,822.72	2,261.56		2,261.56
	c) Amount of FC in B(a) above			-			-			-
	d) Amount of FERV in B(a) above			-			-			-
	e) Amount of Hedging Cost in B(a) above			-			-			-
	f) Amount of IEDC in B(a) above			-			-			-
C	a) Transferred to Gross Block Amount during the period (Indian GAAP)	1,04,302.56	4,232.36	1,00,130.38	65,184.42	7,018.79	66,163.63	4,057.10	1,013.49	5,043.61
	b) Amount of IDC in C(a) above	40,921.44		40,921.44	30,584.53		30,584.53			-
	c) Amount of FC in C(a) above			-			-			-
	d) Amount of FERV in C(a) above			-			-			-
	e) Amount of Hedging Cost in C(a) above			-			-			-
	f) Amount of IEDC in C(a) above			-			-			-
D	a) Closing CWIP as per books (Indian GAAP)	71,291.75	5,648.14	65,042.60	23,874.96	2,989.28	20,851.68	42,962.78	4,732.61	37,288.17
	b) Amount of IDC in D(a) above	27,004.63	-	27,004.63	1,342.42	-	1,342.42	2,667.77	-	2,667.77
	c) Amount of FC in D(a) above			-			-			-
	d) Amount of FERV in D(a) above			-			-			-
	e) Amount of Hedging Cost in D(a) above			-			-			-
	f) Amount of IEDC in D(a) above			-			-			-

(Petitioner)

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (कमिटिकल)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PART- IV
FORM- 1

Calculation of Interest on Normative Loan

Name of the Petitioner: NTPC Ltd

Name of the Integrated Misc. Pshri Barwadih

(Amount in Rs Lakh)

S. No.	Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1	Gross Normative Loan - Opening	Not Applicable	91,288.80	1,22,462.09	1,41,809.03	2,80,732.46	2,90,750.57
2	Cumulative repayment of Normative loan up to previous year		-	7,518.18	12,931.41	27,607.22	80,636.31
3	Net Normative loan - Opening		91,288.80	1,14,943.91	1,28,877.62	2,53,125.24	2,10,094.84
4	Add: Increase due to addition during the year		31,173.29	19,346.94	71,988.89	10,706.53	22,758.69
5	Less: Decrease due to de-capitalisation during the year					3.82	191.78
6	Add: Increase due to discharges during the year / period		17,700.31	7,446.00	16,884.54	27,033.66	19,167.35
6A	Less: repayment during the period		5,518.18	6,813.25	13,275.70	17,040.68	20,734.10
7	Net Normative loan - Closing		1,39,943.91	1,29,727.62	2,07,227.26	2,74,809.68	2,48,798.99
8	Average Normative loan		1,04,116.35	1,22,335.77	1,68,526.44	2,74,809.47	2,42,442.21
9	Weighted average rate of interest		8.8514%	7.3038%	6.8029%	5.8107%	7.5779%
10	Interest on Loan		9,383.67	8,879.92	11,613.99	17,355.54	19,881.63

[Petitioner]

पवन देव जमाटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PART- IV
FORM- 3

Calculation of Interest on Working Capital

Name of the Petitioner: NTPC Ltd

Name of the Integrated Mine: Pakri Barwadih

(Amount in Rs Lakh)

S. No.	Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1	Input Cost of Coal Stock for 7 days of Production corresponding to ATQ for the relevant year	Not Applicable	3661.66	3197.03	4488.82	5535.85	8023.63
2	Consumption of stores and spare including explosives, lubricants and fuels (@ 15%) of O&M expenses excluding mining charge of MDO or annual charge of any agency other than MDO		2375.77	2200.15	2839.84	3400.81	4228.29
3	One Month O&M Expenses excluding mining charge of MDO or annual charge of any agency other than MDO		1319.87	1227.30	1577.69	1892.67	2349.11
4	Total Working Capital		7357.24	6633.48	8826.35	10889.33	14601.13
5	Rate of Interest		12.05	11.25	10.50	10.20	12.00
6	Interest on Working Capital		886.55	746.27	926.77	1137.71	1752.14

Deepak DEV JAMTA
Deputy General Manager (Commercial)
ECC, A-8A, Sector 24, Noida-201301 (U.P.)

Statement of Liability Flow

PART- IV
FORM- V

Name of the Petitioner: NTPC Ltd.
Name of the Integrated Mine: Pakri Barwadih

Sr No	Name of the Party	Name of the Petitioner	Date of actual commencement	Original Liability as per and date of Commercial operation declared to JCI/CERC	Liability as on date of commercial operation declared to JCI/CERC	Liabilities during the Year	Discharge (Cash Outflow)	Accruals (Non cash)	Net Liabilities at end of Month/ Year - 31.03.2020	Liabilities during the Year	Discharge (Cash outflow)	Accruals (Non cash)	Net Liabilities as on 31.03.2021
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													

पवन देव जमटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement of Liability Flow

PART: IV
FORM: V

Name of the Petitioner: NTPC Ltd.
Name of the Integrated Mine: Pakri Barwadih

Sl. No.	Name of the Area	Name of the Contractor	Year of award/ mobilisation	Original liability as per Mine OP (estimated cost upto Mine Closure) as on 31.03.2019	Liability as per latest approved mine plan as on 31.03.2019	Additions during the Year	Reversals/ Cash paid	Accruals/ Cash paid	Net Liability as on 31.03.2020	Additions during the Year	Reversals/ Cash paid	Accruals/ Cash paid	Net Liability as on 31.03.2021
1	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]			[illegible]		[illegible]		[illegible]
2	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]			[illegible]		[illegible]		[illegible]
3	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
4	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
5	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
6	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
7	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
8	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
9	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
10	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
11	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
12	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
13	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
14	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
15	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
16	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
17	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
18	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
19	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
20	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
21	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
22	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
23	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
24	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
25	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
26	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
27	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
28	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
29	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
30	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
31	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
32	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
33	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
34	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
35	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
36	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
37	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
38	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
39	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
40	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
41	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
42	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
43	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
44	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
45	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
46	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
47	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
48	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
49	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
50	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
51	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
52	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
53	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
54	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
55	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
56	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
57	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
58	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
59	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
60	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
61	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
62	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
63	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
64	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
65	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
66	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
67	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
68	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
69	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
70	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
71	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
72	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
73	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
74	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
75	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
76	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
77	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
78	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
79	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
80	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
81	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
82	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
83	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
84	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]

पवन देव जमाटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement of Liability Flow

PART- IV
FORM- V

Name of the Petitioner: NTPC Ltd.
Name of the Generating Station: Pakal Dul(New)

Sr. No.	Name of the Party	Name of the Work/Item	Date of actual liability/Bill Date	Original Liability in case Bill of Currency/Bill currency as given in FCA (Rs.Cr)	Liability as on date of Commercial operation as given in Form-V (Rs.Cr)	Liability during the Year	Discharges (Rs.Cr)	Exchange (Rs.Cr)	Net Liability as on 31st March (Rs.Cr)	Liability during the Year	Discharges (Rs.Cr)	Exchange (Rs.Cr)	Net Liability as on 31st March (Rs.Cr)
01					0.00		-		0.00		-		0.00
02					0.11		-		0.11		-		0.11
03					0.11		-		0.11		-		0.11
04					0.11		0.11		-		-		-
05					0.11		0.11		-		-		-
06					1.97		-		1.97		-		1.97
07					0.00		-		0.00		-		0.00
08					0.11		0.11		-		-		-
09					0.11		0.11		-		-		-
10					0.11		-		0.11		-		0.11
11					0.11		-		0.11		-		0.11
12					0.11		-		0.11		-		0.11

Statement of Liability Flow

PART- IV
FORM- V

Name of the Petitioner: NTPC Ltd.
Name of the Integrated Mine: Pakri Barwadih

Sr. No.	Nature of the Work	Name of the Work order	Date of actual liability/ due	Original Liability as per work order/ agreement (Rs. in Lacs)	Liability as per latest estimated cost (Rs. in Lacs)	Liability during the Year (Rs. in Lacs)	Expenses (Rs. in Lacs)	Accumulated Expenses (Rs. in Lacs)	Net Liability carried over to next year (Rs. in Lacs)	Liability during the Year (Rs. in Lacs)	Fiscal Charges (Rs. in Lacs)	Accumulated Expenses (Rs. in Lacs)	Net Liability at the end of the year (Rs. in Lacs)
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													
51													
52													
53													
54													

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (परियोजना)
Deputy General Manager (Coordination)
पी ई जी बी/PEGS/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement of Liability Flow

PART: IV
FORM: 9

Name of the Petitioner: NTPC Ltd.
Name of the Generating Station: Patel Sarwalik

S. No.	Name of the Work	Name of the Work Head	Time allowed for completion	Original Liability to meet cost of completed and spillover works as on 31.3.2019	Liability as on date of commissioning and spillover as on 1.4.2019	Liabilities during the Year	Discharges (Cash Flow)	Accruals (Cash Flow)	Net Liability as on 31.3.2020	Liabilities during the Year	Discharges (Cash Flow)	Accruals (Cash Flow)	Net Liability as on 31.3.2021
176													
177													
178													
179													
180													
181													
182													
183													
184													
185													
186													
187													
188													
189													
190													
191													
192													
193													
194													
195													
196													
197													
198													
199													
200													
201													
202													
203													
204													
205													
206													
207													
208													
209													
210													
211													
212													
213													

पवन देव जमवाल/PAWAN DEV JAMWAL
उप महाप्रबंधक (वाणिज्य)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement of Liability Flow

PART- IV
FORM- X

Name of the Petitioner: NTPC Ltd.
Name of the Integrated Mine: Pakri Barwadih

Sr. No.	Name of the Asset	Scope of the Work (new)	Total amount Capitalized (Rs.	Original Liability as on date of commercial operation as given in FY (2009	Liability as on date of commercial operation taking up in future	Liabilities during the Year	Discharges (Cash Outflow)	Accrued (Cash Inflow)	Net Liability accrued (Cash Outflow / Cash Inflow)	Liabilities during the Year	Discharges (Cash Outflow)	Accrued (Cash Inflow)	Net Liability as on end of each year (Cash Outflow / Cash Inflow)
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													
51													
52													
53													
54													
55													
56													
57													
58													
59													
60													

पवन देव उपाध्याय/PAWAN DEV UPADHYAY
उप महाप्रबंधक (वित्त)/Deputy General Manager (Finance)
एनटीपीसी लिमिटेड/NTPC Limited
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement of Liability Flow

Name of the Petitioner: NTPC Ltd.
Name of the Transmission Asset: Patiri Bongaigaon

PART-IV
FORM-V

Sr. No.	Name of the Party	Name of the Work/Asset	Cost of Award/ Applicable Amt.	Original Liability as per Book of Accounts/Cost Plus Escalation as on 31.03.2019	Liability as on date of Commercial Operation/Cash Outflow/ Settlement as Apex	Liability during the Year	Discharges (Cash Outflow)	Reversal (Cash Inflow)	Total Liability as on 31.03.2020	Liability during the Year	Discharges (Cash Outflow)	Reversal (Cash Inflow)	Net Liability as on 31.03.2021
[illegible]		[illegible]	[illegible]										

Statement of Liability Flow

PART- IV
FORM- 9

Name of the Petitioner: NTPC Ltd.
Name of the Integrated Mine/ Pithi Network:

Sl. No.	Name of the Area	Name of the Project	Year-Quarter wise Liability in Mm3	Actual Liability in mm3 (Actual Liability in mm3 - Liability in mm3 in previous year)	Liability in mm3 as per Mine Plan in mm3	Liabilities during the Year	Backlog in Cum mm3	Removal in Cum mm3	Net Liability in mm3 (Liability in mm3 - Removal in mm3)	Liabilities during the Year	Backlog in Cum mm3	Removal in Cum mm3	Net Liability in mm3 (Liability in mm3 - Removal in mm3)
1													
2													
3													

Statement of Liability Flow

Name of the Petitioner: NTPC Ltd.
Name of the Integrated Mines: Pakri Barwadih

Sr. No.	Name of the Party	Name of the Work/Item	Date of Award/ Agreement	Liability during the Year	Payments made during the year	Amount Due during the year	Net Liability as on end of the year (5.(6)-7(8))	Liability during the Year	Payments Made during the year	Amount Due during the year	Net Liability as on end of the year (9.(10)-11(12))	Liability during the Year	Payments Made during the year	Amount Due during the year	Net Liability as on end of the year (13.(14)-15(16))
1		Construction of Development Road at village Agaria Kurmi & Ch	01-04-2018				0.69				0.69		0.69		-
2		Construction of Road from Ch. 0.00 to 1.00 at village Agaria Kurmi	01-04-2018												-
3		Construction of Road from Ch. 1.00 to 2.00 at village Agaria Kurmi	01-04-2018												-
4		Construction of Road to Agaria Kurmi village Chainage 0.00 to 1.00 at	01-04-2018												-
5		Construction of Road from Agaria to Kurmi Village Chainage 1.00 to 2.00 at	01-04-2018												-
6		Construction of Road from Agaria to Kurmi village Chainage 2.00 to 3.00 at	01-04-2018												-
7		Construction of approach road from Kurmi to Dudhiya village at	01-04-2018												-
8		Construction of R.C.C. culvert (Nala Crossing)	01-04-2018				1.35				1.35		1.35		-
9		Construction of approach road at Kurmi Chowdih (Pkg-II)	01-04-2018												-
10		Construction of road from Jungpahari Mod Kurmi to Chapdahiya Kurmi	01-04-2018												-
11		Construction of Pitch Road from Chainage 0.0 Kurmi Bypass to Pakri	02-04-2018				1.90				1.90		1.90		-
12		Construction of Boundary wall starting from Ambedkar Chowkdih to	12-04-2018												-
13		Construction of Road by earth cutting from Ambedkar Chowkdih to	30-04-2018				1.15				1.15				1.15
14		Construction of road by earth cutting from Kurmi to Chowkdiya	30-04-2018												-
15		Construction of Road by earth cutting from Kurmi to Chowkdiya	30-04-2018												-
16		Construction of road from Ambedkar Chowkdih to Kurmi village	30-04-2018				0.15		0.15						-
17		Construction of PCC Road from Chainage 0.0 Ambedkar Chowkdih to Kurmi	30-04-2018				0.74		0.77						-
18		Construction of Bituminous Road (WMM) including the construction	30-06-2018												-
19		Construction of Boundary wall in the Coal Field Chowkdih at village	15-08-2018												-
20		Construction of Road from Ambedkar to Pipal (Package-I)	15-08-2018												-
21		Construction of Road from Ambedkar to Pipal (Package-II)	30-09-2018												-
22		Construction of approach road with culvert (Pkg-II)	30-09-2018												-
23		Supply and erection of fencing and Re-demarcation (Pkg-I & II)	30-09-2018				0.10				0.10		0.10		-
24		Construction of Boundary Wall in Chowkdih village Kurmi (Pkg-II)	30-09-2018												-
25		Construction of Boundary wall in Kurmi village Kurmi (Pkg-I)	31-10-2018												-
26		Construction of Boundary wall in Kurmi village Kurmi (Pkg-II)	31-10-2018				0.08		0.13						-
27		Construction of Boundary wall in Kurmi village Kurmi (Pkg-III)	31-10-2018				0.08				0.07		0.02		-
28		Construction of Boundary wall in Kurmi village Kurmi (Pkg-IV)	31-10-2018												-
29		Construction of R.C.C. Culvert at Kurmi Bypass	30-11-2018												-
30		Construction of Boundary wall with ornamental grill fencing in front of	30-11-2018												-
31		Construction of Water supply Tank and Pump House at Kurmi	30-11-2018												-
32		Construction of Boundary Wall in Kurmi village Kurmi (Pkg-V)	30-11-2018												-
33		Construction of Boundary wall in Kurmi village Kurmi (Pkg-VI)	30-11-2018				1.08		1.08						-
34		Construction of Boundary wall in Kurmi village Kurmi (Pkg-VII)	30-11-2018												-
35		Construction of Boundary wall in Kurmi village Kurmi (Pkg-VIII)	30-11-2018												-
36		Construction of Boundary wall in Kurmi village Kurmi (Pkg-IX)	30-11-2018		0.01										-
37		Construction of Boundary wall in Kurmi village Kurmi (Pkg-X)	30-11-2018												-
38		Construction of Boundary wall in Kurmi village Kurmi (Pkg-XI)	30-11-2018												-
39		Construction of Boundary wall in Kurmi village Kurmi (Pkg-XII)	30-11-2018												-
40		Construction of Boundary wall in Kurmi village Kurmi (Pkg-XIII)	30-11-2018												-
41		Construction of Boundary wall in Kurmi village Kurmi (Pkg-XIV)	30-11-2018												-
42		Construction of Boundary wall in Kurmi village Kurmi (Pkg-XV)	30-11-2018				0.14				0.14				-
43		Procurement & Installation of Solar Street Light	30-11-2018												-

पवन देव जमादा/PAWAN DEV JAMATH
उप महाप्रबंधक (वाणिज्य)
Deputy General Manager (Commercial)
ईएक्यू ए-8ए सेक्टर-24 नोएडा/NTPC LIMITED
EQC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement of Liability Flow

Name of the Petitioner: NTPC Ltd.
Name of the Integrated Mines: Pakri Barwadih

Sr. No.	Name of the Party	Details of the Work/Contract	Total Amount Claimed by the Party	Liabilities during the Year	Withdrawn (Cash/ others)	Amount Due as on 31.03.2021	Net Liabilities as on 31.03.2021	Liabilities during the Year	Withdrawn (Cash/ others)	Amount Due as on 31.03.2022	Net Liabilities as on 31.03.2022	Liabilities during the Year	Withdrawn (Cash/ others)	Amount Due as on 31.03.2023	Net Liabilities as on 31.03.2023
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															
25															
26															
27															
28															
29															
30															
31															
32															
33															
34															
35															
36															
37															
38															
39															
40															
41															
42															
43															
44															
45															
46															
47															
48															
49															
50															
51															
52															
53															
54															
55															
56															

पवन देव आचार्य/PAWAN DEV ACHARYA
उप महाप्रबंधक (वित्त)/Dy. General Manager (Finance)
Dy.G General Manager (Commercial)
एनटीपीसी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement of Liability Flow

Name of the Petitioner: NTPC Ltd.
Name of the Integrated Mine: Pakri Barwadih

Sr. No.	Name of the Party	Name of the Petitioner	Total amount Capitalised (Rs)	Opening Liability as on 1st April	Recharges (Cash)	Reversals (Cash)	Net Liability as on 31st March (Rs)	Opening Liability as on 1st April	Recharges (Cash)	Reversals (Cash)	Net Liability as on 31st March	Opening Liability as on 1st April	Recharges (Cash)	Reversals (Cash)	Net Liability as on 31st March
1															
2															
3															

Statement of Liability Flow

Name of the Publisher: NTPC Ltd
Name of the Integrated Misc. Petrl Barmadh

Sr. No.	Name of the Work	Name of the Work Deptt	Date of Actual Capitalisation	Liabilities existing as on 1st April	Work done during the year	Amount paid during the year	Net Liabilities at the end of the year (5+6-7)	Liabilities existing as on 1st April	Work done during the year	Amount paid during the year	Net Liabilities at the end of the year (9+10-11)	Liabilities existing as on 1st April	Work done during the year	Amount paid during the year	Net Liabilities at the end of the year (13+14-15)
134															
135							4.00		4.00						
136															
137					18.00										
138															
139															
140															
141															
142															
143															
144															
145							0.72		1.44						
146															
147															
148															
149															
150															
151															
152															
153					1,000.00		1,791.11		1,000.00		1,791.11		1,791.11		
154															
155															
156				1,000.00	7,000.00		8,000.00	1,791.11	1,000.00		2,791.11		1,791.11		1,791.11
157															
158					13.00										
159					9.00										
160					-		0.00				0.00				0.00
161															
162															
163					0.00										
164															
165															
166					2.00										
167					0.00										
168															
169					1.00										
170															
171							0.00				0.00		0.00		
172							0.00				0.00		0.00		
173															
174							0.00				0.00		0.00		
175															

पवन देव उपमन्यु/PAWAN DEV UPMANYU
Dep. General Manager (Commercial)
EOC, A-8A, Sector-24, Noida (U.P.)

Statement of Liability Flow

Name of the Petitioner: NTPC Ltd.

Name of the Integrated Mines: Pakri Barwadih

Sr. No.	Particulars	Name of the Packages	Date of actual capitalisation	Additions during the Year	Withdrawals/ Other adjustments	Discharges/ Other adjustments	Net Liability as on 31.03.2023	Additions during the Year	Discharges/ Other adjustments	Discharges/ Other adjustments	Net Liability as on 31.03.2024	Additions during the Year	Discharges/ Other adjustments	Discharges/ Other adjustments	Net Liability as on 31.03.2025
129															
130															-
131							2.66				0.60				2.06
132					50.00		27.66				27.66		27.66		0.00
133							9.11				8.11				8.11
134					29.46										-
135							111.71	162.98			267.70		266.85		194.83
136					2.00		4.61				6.61		7.08		0.02
137					46.71										-
138							8.26				8.26				8.26
139					-		8.00				8.00				8.00
140															
141							-4.11				6.41				2.30
142															-
143							3.66				6.67		3.00		-
144															
145					2.61										
146							0.84				3.00				3.84
147					1,000.00		15,779.00				15,779.00		2,445.00		18,224.00
148					-		0.19				0.19				0.19
149					0.00										-
150					0.00		0.11				0.11		-		0.11
151					0.00										-
152					0.00										-
153					0.00										-
154					0.00		2.26				0.00				2.26
155				6.77			6.77		6.77						-
156				2.38			2.38		2.38						-
157				70.27			70.27				70.27		29.66		4.61
158				1.77			1.77				1.77				1.77
159				4.36			4.36				4.36				4.36
160				0.31			0.31		0.31						-
161				1.38			2.38		6.41		2.06				2.38
162				1.79			2.29		2.29						-
163				70.94			70.94		70.94		70.94		0.00		-
164				0.41			0.41		0.41		0.41				-
165				0.00			0.00		0.00		0.00				-
166				0.41			0.41		0.41		0.41				-
167				0.00			0.00		0.00		0.00				-
168				0.00			0.00		0.00		0.00				-
169				0.00			0.00		0.00		0.00				-
170				0.00			0.00		0.00		0.00				-
171				0.00			0.00		0.00		0.00				-
172				0.00			0.00		0.00		0.00				-
173				0.00			0.00		0.00		0.00				-
174				0.00			0.00		0.00		0.00				-

पवन देव जमुवा/PAWAN DEV JAMUA
उप महाप्रबंधक (वित्त)/Deputy General Manager (Finance)
एनटीपीसी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement of Liability Flow

Name of the Petitioner: NTPC Ltd.

Name of the Integrated Mine: Patal Barwadih

Sr No	Name of the Asset	Details of the Packages	Total Anticipated Capital Investment	Liabilities existing as on 1st Year	Withdrawals (Year wise)	Accruals (Year wise)	Total Liabilities (month wise) as on 31st March	Liabilities existing as on 1st April	Discharges (Year wise)	Accruals (Year wise)	Total Liabilities as on 31st March (Year wise)	Liabilities as on 1st April	Discharges (Year wise)	Accruals (Year wise)	Total Liabilities as on 31st March (Year wise)
110															
111															
112															
113															
114															
115															
116															
117															
118															
119															
120															
121															
122															
123															
124															
125															
126															
127															
128															
129															
130															
131															
132															
133															
134															
135															
136															
137															
138															
139															
140															
141															
142															
143															
144															
145															
146															
147															
148															
149															
150															
151															
152															
153															
154															
155															
156															
157															
158															
159															
160															
161															
162															
163															
164															
165															
166															
167															
168															
169															
170															
171															
172															
173															
174															
175															
176															
177															
178															
179															
180															
181															
182															
183															
184															
185															
186															
187															
188															
189															
190															
191															
192															
193															
194															
195															
196															
197															
198															
199															
200															
201															
202															
203															
204															
205															
206															
207															
208															
209															
210															
211															
212															
213															
214															
215															
216															
217															
218															
219															
220															
221															
222															
223															
224															
225															
226															
227															
228															

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Dy. General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A&A, Sector-24, Noida-201301 (U.P.)

Statement of Liability Flow

Name of the Publisher: NTPC Ltd.
Name of the Integrated Mine: Pakri Barwadih

Sr. No.	Name of the Vendor	Name of the Work/Asset	Total Allocated Liability (Rs. Lakh)	Liability during the Year	Payments (Cash Outflow) during the Year	Amount Written off during the Year	Total Liability at the end of the year (3+4-5-6)	Liability during the Next Year	Payments (Cash Outflow) during the Next Year	Amount Written off during the Next Year	Net Liability at the end of the year (7-8-9-10)	Liability during the Year after Next Year	Payments (Cash Outflow) during the Year after Next Year	Amount Written off during the Year after Next Year	Net Liability at the end of the year after Next Year (11-12-13-14)
330								0.77			0.77				0.77
331								0.65			0.65				0.65
332								0.53			0.53				0.53
333								0.89			0.89		0.89		-
334								0.77			0.77				0.77
335												0.74			0.74
336												0.77			0.77
337												0.65			0.65
338												0.77			0.77
339												0.65			0.65
340												0.74			0.74
341												0.77			0.77
342												0.65			0.65
343												0.77			0.77
344												0.65			0.65
345												0.77			0.77
346												0.65			0.65
347												0.77			0.77
348												0.65			0.65
349												0.77			0.77
350												0.65			0.65
351												0.77			0.77
352												0.65			0.65
353												0.77			0.77
354												0.65			0.65
355												0.77			0.77
356												0.65			0.65
357												0.77			0.77
358												0.65			0.65
359												0.77			0.77
360												0.65			0.65
361												0.77			0.77
362												0.65			0.65
363												0.77			0.77
364												0.65			0.65
365												0.77			0.77
366												0.65			0.65
367												0.77			0.77

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Statement of Liability Flow

Name of the Petitioner: NTPC Ltd.
Name of the Generating Station: Paturi Borrowdih

Sr. No.	Name of the Bank	Purpose of the Sanction	Total Sanctioned Limit/Amount	Liability as on the beginning of the Year	Withdrawals during the Year	Payments during the Year	Net Liability at the end of the Year (3+4-5)	Liability as on the beginning of the Year	Withdrawals during the Year	Payments during the Year	Net Liability at the end of the Year (7+8-9)	Liability as on the beginning of the Year	Withdrawals during the Year	Payments during the Year	Net Liability at the end of the Year (10+11-12)
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Annexure - A

एनटीपीसी
NTPC

INTER OFFICE MEMO

From: Company Secretary

To: Shri S.N Goel
ED (Fuel Security)

Ref: 01:SEC:BM:8

Dated: 16.12.2010

Sub: Investment Approval for Pakri Barwadih Coal Mining Project, Rated Production Capacity of 15 MTPA

Kindly find enclosed an extract from the minutes of 350th Meeting of the Board of Directors held on Friday, November 12, 2010 on the above subject for your information and necessary action.

(A.K. RASTOGI)

Encl: As above

1 GM (PS, ICD & CA)

2 AGM (PS)
3 AGM (CA)
4 AGM (Contracts)

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाईएटिएस)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

EXTRACTS FROM THEMINUTES OF 360TH MEETING OF THE BOARD OF DIRECTORS HELD ON FRIDAY, NOVEMBER 12, 2010

8019 Item No.360.2.3 **Investment Approval for Pakri Barwadih Coal Mining Project, Rated Production Capacity of 15 MTPA**

Executive Director (Fuel Security) informed that the Project Sub-Committee of the Board had, in its 68th meeting held earlier in the day, considered the investment proposal for Pakri Barwadih Coal Mining Project and recommended the same for approval of the Board.

He then explained salient features of the proposal like location of the mine, status of land availability, statutory clearances and infrastructure development, demand-supply scenario etc. Executive Director (Fuel Security) further informed that total capital expenditure by NTPC for Pakri Barwadih coal block had been estimated as ₹ 3193.86 Crore as of 1st quarter 2010 price level including Interest During Construction (IDC) on Senior Debt of ₹ 142.19 Crore, Financing Charges (FC) of ₹ 9.01 Crore and Working Capital Margin money of ₹ 27.07 Crore.

Executive Director (Fuel Security) then informed that total production cost per tonne at 85% capacity utilization worked out to ₹ 1085.13 as under:

Rs./tonne

MDO Base Mining Fee of ₹ 730/tonne, escalated to March, 2010, as per PV given in IDC	790.82
Additional charges payable to MDO towards O&M of extended CHP (activities as mentioned in Award Proposal, to be finalized)	8.29
Service Tax on MDO Fee(@10.30%)	78.01
NTPC Operating cost (revenue expenditure including interest on Working Capital)	94.56
(NTPC Investment(₹ 3193.86Cr) servicing cost a. Interest : 68.47 b. Depreciation & Amortization of land value : ₹ 105.00	174.47
Total production Cost (excluding Royalty & SED)	1085.13

Executive Director (Fuel Security) then stated that as per Tariff Regulation 2009-14, Rate of Return notified by CERC was 16% (post-tax) which after grossing up with applicable income-tax rate, worked out to 23.9693%. Taking Return on Equity as 23.9693% (pre-tax), Transfer Price of coal from Pakri Barwadih Mine worked out to ₹ 1272.81 / tonne.

पवन देव जायसा/PAWAN DEV JAYSTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Executive Director (Fuel Security) also informed that while appraising the Project's projected performance, Infrastructure Development Finance Company Limited (IDFC) concluded that the Project if implemented through outsourced model, could be considered as financially viable.

The Board, after discussions, passed the following resolution:

> Resolved that the Investment Approval be and is hereby accorded for Pakri Barwadih Coal Mining Project (15 Million Tonnes Per Annum) at Infrastructure Development Finance Company Limited (IDFC) appraised current estimated cost as of 1st quarter 2010 price level of ₹ 3193.86 Crore including Interest During Construction (IDC), Financing Charges (FC) of ₹ 150.80 Crore (₹ 142.19 Cr + ₹ 8.61 Cr) and Working Capital Margin (WCM) of ₹ 27.07 Crore, as per the memorandum submitted before the Board.

XXXX

पवन देव जामाद/PAWAN DEV JAMTA
उप महाप्रबन्धक (कॉर्पोरेट)
Deputy General Manager (Corporate)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Copy: ED(FT)
GM (Coal Mining)
may please see
14/11

एनटीपीसी
NTPC

INTER OFFICE MEMO

FROM : COMPANY SECRETARY

REF. NO. : 01: SEC: BM:8

DATED : 12.11.2012

TO: Shri N.K. Sharma
ED (R&R, Safety & CSR)

CC: GM (Fin-budget)

SUBJECT: Proposal for approval of additional provisions for payment to claimant to claimant on Government Land and Forest Land for Pakri Barwadih Coal Block.

Please find enclosed an extract from the Minutes of 388th Meeting of the Board of Directors held on Wednesday, 7th November 2012 on the above subject for your information and necessary action.

(A.K. RASTOGI)

Encl.: As above

Copy: Acm (R&R)
copy: Board file

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

EXTRACTS FROM THE MINUTES OF 387TH MEETING OF THE BOARD OF DIRECTORS HELD ON FRIDAY, 26TH OCTOBER 2012

Item No.387.2.8 Proposal for approval of additional provisions for payment to claimants on Government Land and Forest Land for Pakri Barwadih Coal Block

XX XX XX XX XX XX XX

XX XX XX XX XX XX XX

The Board, after discussions, passed the following resolution:

Resolved that the proposal for additional provisions of Rs. 40 Crore for payment to claimants, settled on Government land for more than 30 years and dwellers on forest land eligible under relevant Forest Act, for Pakri Barwadih coal block, as detailed in the Memorandum submitted before the Board, be and is hereby approved.

Further resolved that the Chairman & Managing Director be and is hereby authorized to approve any subsequent re-appropriation / modification within total provisions for land acquisition and Rehabilitation Action Plan (RAP) as per State Government guidelines issued from time to time.

XXXX

PAWAN DEV JAMTA
Deputy General Manager (Commercial)
NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

एनटीपीसी
NTPC

INTER OFFICE MEMO

From: Dy. Co. Secretary

To: GM (HR) I/c

→ CC: ED (FT)

Ref: 01:SEC:BM:8

Dated: 28.03.2013

Sub.: **Revised Compensation cum R&R package as approved by Government of Jharkhand (GOJ) for Pakri-Barwadih Coal Mining Project**

Please find enclosed extracts from the minutes of 393rd Meeting of the Board of Directors held on March 22, 2013 on the above subject for your information and necessary action.

Nandini Sarkar

(N. Sarkar)

Encl: As above

GM/CMG

Board note file
General file

29/03

पवन देव जोगटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (कॉर्पोरेट)
Deputy General Manager (Cor. Journals)
एन टी पी सी लिमिटेड/NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

EXTRACTS FROM THE MINUTES OF 393RD MEETING OF THE BOARD OF THE DIRECTORS HELD ON FRIDAY, MARCH 22, 2013

Item No.393.2.9 Revised Compensation cum R&R package as approved by Government of Jharkhand (GOJ) for Pakri-Barwadih Coal Mining Project

XX XX XX XX XX XX XX

XX XX XX XX XX XX XX

The Board, after discussions, passed the following resolution:

Resolved that the Revised Compensation cum R&R package as approved by Government of Jharkhand (GOJ) for Pakri Barwadih coal mining project involving an additional tentative financial expenditure of Rs.10041 Million (excluding Rs.15593 Million already approved) as broadly detailed in the Memorandum submitted before the Board be and is hereby approved.

Further resolved that the Chairman & Managing Director be and is hereby authorized to approve any subsequent re-appropriations in the overall approved investment amount of Rs. 25634 Million.

Further resolved that Executive Director (Fuel Transportation) be and is hereby authorized to take further necessary action in the above matter.

XXXXX

Nandini Sarker

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

एनटीपीसी
NTPC

INTER OFFICE MEMO

From: ED & Co. Secretary

To: Shri S. Ghosh
ED (HR)

Ref.: 0I:SEC:BM:8

Dated: 26.03.2015

Sub.: Revised Compensation & special assistance Package to encroachers for Pakri-Barwadih Coal Mining Project

Please find enclosed extracts from the minutes of 416th meeting of the Board of Directors held on Wednesday, 25th March, 2015 on the above subject for your information and necessary action.

(A.K. RASTOGI)

Encl: As above

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एनटीपीसी लिमिटेड/NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

EXTRACTS FROM THE MINUTES OF 418th MEETING OF THE BOARD OF DIRECTORS HELD ON WEDNESDAY, 25th MARCH 2015

Item No.418.2.1 **Revised Compensation & Special assistance package to encroachers for Pakri-Barwadih Coal Mining Project**

XX XX XX XX XX XX

XX XX XX XX XX XX

The Board, after discussions, passed the following resolution:

Resolved that the Revised Compensation and Special assistance package to encroachers, as decided in the meeting with Government of Jharkhand (GOJ) for Pakri-Barwadih Coal Mining Project, involving an additional tentative financial expenditure of Rs. 3542 Million (over and above the already approved Rs. 25634 Million), as broadly detailed in the Memorandum placed before the Board, be and is hereby approved.

Further resolved that the Chairman & Managing Director be and is hereby authorized to approve any subsequent re-appropriations in the overall approved amount of Rs. 29176 Million towards Land and R&R.

Further resolved that Regional Executive Director (Coal Mining) be and is hereby authorized to take further necessary action in the above matter.

****

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

एनटीपीसी
NTPC

INTER OFFICE MEMO

FROM : COMPANY SECRETARY

TO: Shri Prashant Kashyap
HOP (Pakri Barwadih)

Through email only

REF. NO. : 01: SEC: BM: 8

DATED : 1.1.2021

SUBJECT: **Additional Land Compensation on account of delayed land payment and indexation of R&R Benefits including Investment approval for Phase IV, V for Pakri Barwadih Coal Mining Projects at Hazaribagh**

Please find enclosed extracts from the minutes of 492nd Meeting of the Board of Directors held on Saturday, 26th December 2020 on the above subject for your information and necessary action.

Nandini Sarkar

(Nandini Sarkar)

Encl.: As above

पवन देव जाटा/PAWAN DEV JAATA
उप महाप्रबंधक (सीएम)
Deputy General Manager (CM)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

EXTRACTS FROM THE MINUTES OF 492ND MEETING OF THE BOARD OF DIRECTORS HELD ON SATURDAY, 26TH DECEMBER, 2020

Item no. 492.2.7 **Additional Land Compensation on account of delayed land payment and indexation of R&R Benefits including Investment approval for Phase IV, V for Pakri Barwadih Coal Mining Projects at Hazaribagh**

XX XX XX XX XX XX XX XX XX XX XX XX

XX XX XX XX XX XX XX XX XX XX XX XX

The Board, after discussion, passed the following resolution:

Resolved that special assistance package for additional land compensation including land for Ph.-I to Ph.-V, in line with the Minutes of Meeting with Govt. of Jharkhand dated 15.12.2020 for Pakri Barwadih Coal Mining Project involving total tentative financial implication of Rs. 3699.8 Million towards additional land compensation on account of delayed payment and Ph.-IV to Ph.-V land of PB (excluding PB-NW) be and is hereby approved.

Further resolved that special assistance package for additional land compensation for LA land, in line with the Minutes of Meeting with Govt. of Jharkhand dated 15.12.2020 for Pakri Barwadih Coal Mining Project involving total tentative financial implication of Rs. 110 Million towards additional land compensation on account of delayed payment be and is hereby approved.

Further resolved that special assistance package for additional R&R benefits, in line with the Minutes of Meeting with Govt. of Jharkhand dated 15.12.2020 for Pakri Barwadih Coal Mining Project involving total tentative financial implication of Rs. 714.5 Million towards indexation of R&R benefits to Homestead Oustees be and is hereby approved.

Further resolved that the Chairman & Managing Director be and is hereby authorized to approve any subsequent re-appropriation in the overall approved amount of Rs. 33700.6 Million (29176.3 Million + 3699.8 Million + 110 Million + 714.5 Million) towards land and R&R cost of Pakri Barwadih Coal Mining Project.

Further resolved that Executive Director (PB, CB & Badam) be and is hereby authorized to take further necessary action in the above matter.

*****

Nandini Sarkar

पवन देव जमवा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Dep.-ty General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

एनटीपीसी
NTPC

INTER OFFICE MEMO

FROM : COMPANY SECRETARY **TO:** Shri Animesh Jain
CGM (Coal Mining)

Through email only

REF. NO. : 01: SEC: BM: 8

DATED : 17.10.2023

SUBJECT: **Investment Approval for doubling of rail track between Banadag Railway siding to Hazaribagh Railway Station for Pakri Barwadih Coal Mining Project (PBCMP) of NTPC**

Please find enclosed extracts from the Minutes of 535th Meeting of the Board of Directors held on Saturday, 7th October 2023 on the above subject for your information and necessary action.

Kumar
(Arun Kumar)

Encl.: As above

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन.टी.पी.सी. लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

EXTRACTS FROM THE MINUTES OF 535TH MEETING OF THE BOARD OF DIRECTORS HELD ON SATURDAY, 7TH OCTOBER, 2023

Item no. 535.2.6 **Investment Approval for doubling of rail track between Banadag Railway siding to Hazaribagh Railway Station for Pakri Barwadih Coal Mining Project (PBCMP) of NTPC**

XX XX XX XX XX XX XX XX XX XX XX XX XX

The Board felt the need to delegate suitably the powers to approve similar investment approval proposals. The Board then authorized Director (Fuel) to work out suitable delegation and place proposal before the Board for approval.

XX XX XX XX XX XX XX XX XX XX XX XX XX

The Board, after discussion, passed the following resolution:

Resolved that the investment approval be and is hereby accorded to undertake doubling of the rail track between Banadag Railway siding to Hazaribagh Railway Station at an estimated cost of Rs.523.92 Crore for Pakri Barwadih Coal Mining Project as per the memorandum submitted before the Board.

******

PAWAN DEV JAMTA
Deputy General Manager (Commercial)
NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Annexure - B

एनटीपीसी
NTPC

INTER OFFICE MEMO

FROM : Company Secretary

TO : Sh. Animesh Jain
RED (Coal Mining)

Through email only

REF. NO. : 01: SEC: BM: 8

DATED : 20.05.2024

SUBJECT: Revised Cost Estimate (RCE-I) for Pakri Barwadih Coal Mining Project

Please find enclosed extract from the minutes of 542nd Meeting of the Board of Directors held on Monday, 29th April 2024 on the above subject for your information and necessary action.

(Ritu Arora)

Encl.: As above

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

EXTRACTS FROM THE MINUTES OF 542ND MEETING OF THE BOARD OF DIRECTORS HELD ON MONDAY, 29TH APRIL 2024

11831 Item No. 542.2.4 Revised Cost Estimate (RCE-I) for Pakri Barwadih Coal Mining Project

The Board, after discussion, passed the following resolution:

"**Resolved that** the proposal of revised cost estimate (RCE-I) for Pakri Barwadih Coal Mining Project for ₹ 10,323.09 Crore (including IDC of ₹ 1,269 Crores, WC of ₹ 27.07 Crores and EDC of ₹ 72.79 Crores) as per the memorandum submitted to the Board, be and is hereby approved for investment approval.

Further resolved that the Chairman & Managing Director be and is hereby authorized to take further action, as be considered necessary, in this regard."

******

पवन देव जायसवाल/PAWAN DEV JAISWAL
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

Annexure - C

Statement showing variation between Investment Approval (including subsequent NTPC Board approvals) and RCE

Amount in Rs Crore

Sl. No	Particulars	Total approved cost including FR cost and additional amount subsequently approved by NTPC board	Reference of Board Approval	RCE-I Cost	Total variation w.r.t IA
		A		B	C=(B-A)
1	Land	1,775.88	492nd Board dated 26.12.2020	2,199.44	423.56
2	Buildings				
i	Service (Admin Building)	9.78	360th Board dated 12.11.2018	321.15	308.38
ii	Residential	5.99			
3	Plant & Machinery				
i	HEMM	-			
ii	Other than HEMM	1,090.12	360th Board dated 12.11.2018	1,524.73	434.61
	Total	1,090.12		1,524.73	434.61
4	Furniture & Fittings	9.80	360th Board dated 12.11.2018	33.34	23.54
5	Railway Sidings	675.35	360th Board dated 12.11.2018 535th Board dated 07.10.23	996.59	321.24
6	Vehicles	0.67	360th Board dated 12.11.2018	0.66	-0.01
7	Prospecting & Boring	20.94	360th Board dated 12.11.2018	51.51	30.56
8	Development				
i	Capital Outlay in Mines	1,835.84	360th Board dated 12.11.2018 & 492nd Board dated 26.12.2020	3,712.92	1,877.10
ii	Roads and Culverts	14.84	360th Board dated 12.11.2018	71.23	56.39
iii	Water Supply & Sewerage	0.84	360th Board dated 12.11.2018	0.84	-
iv	PR Preparation Cost & for Studies	8.16	360th Board dated 12.11.2018	21.94	13.78
v	Miscellaneous Provisions			20.00	20.00
	Total 1 to 8	5,235.86		8,954.23	3,718.38
9	Revenue Exp. Capitalized	97.91	360th Board dated 12.11.2018	64.19	-33.72
10	Upfront Fee	8.60	360th Board dated 12.11.2018	8.60	-
11	Less Depreciation Capitalized	-		-	-
12	IDC on senior debt	199.16	360th Board dated 12.11.2018 535th Board dated 07.10.23	1,269.00	1,069.84
13	Working Capital Margin Money	27.07	360th Board dated 12.11.2018 535th Board dated 07.10.23	27.07	-
	Grand Total	5,568.60		10,323.09	4,754.50

पवन देव जमवाल/PAWAN DEV JAMWAL
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Annexure - D

NTPC LIMITED

SCOPE COMPLEX, 7 INSTITUTIONAL AREA, LODHI ROAD, NEW DELHI-110003

REVISED MINING PLAN AND MINE CLOSURE PLAN

(1st Revision)

FOR

PAKRI BARWADIH COAL BLOCK

NorthKaranapura Coalfield, Distt. - Hazaribagh, Jharkhand



Opencast – 18.00 Mtpa

Block area - 4695 Ha

January – 2016

(Incorporating clarifications to the observations of Standing Committee)

Volume-I

Text & Annexures

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34C- /(15)/2009-CPAM
Ministry of Coal, Govt. of India

Prepared By:

SANJIV KUMAR SINGH

(RQP NO.:34011/ (15)/2009 – CPAM)

Address:CM-Engg., 4th Floor,Core-5,NTPCBhavan, SCOPE Complex, 7 Institutional Area, Lodhi Road, New Delhi-110 003,Tel:011-24387669, Mobile:9650991396, Fax:011-24367089,E-mail:sanjivkumarsingh01@ntpc.co.in

NTPC LIMITED

SCOPE COMPLEX, 7 INSTITUTIONAL AREA, LODHI ROAD, NEW DELHI-110003

REVISED MINING PLAN AND MINE CLOSURE PLAN

(1st Revision)

FOR

PAKRI BARWADIH COAL BLOCK

North Karanpura Coalfield, Distt. - Hazaribagh, Jharkhand

Opencast – 18.00 Mtpa

Block area - 4695 Ha

January – 2016

(Incorporating clarifications to the observations of Standing Committee)

Volume-I
Text & Annexures

Prepared By:

SANJIV KUMAR SINGH

(RQP NO.:34011/ (15)/2009 – CPAM)

Address: CM-Engg., 4th Floor, Core-5,NTPC Bhavan, SCOPE Complex, 7 Institutional Area, Lodhi Road, New Delhi-110 003,**Tel:** 011-24367020, **Mobile:** 9650891390, **Fax:** 011-24367089, **E-mail:**sanjivkumarsingh01@ntpc.co.in

OBSERVATIONS

&

COMPLIANCE TO OBSERVATIONS

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34811/(15)/2008-CPAM
Ministry of Civil, Govt. of India

पवन देव जागरा/PAWAN
Deputy General Manager
EDC, A-8A, Sector

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No	Ref Para	Observations	Compliance to the Observations
1	Sum 1(h)	ROM to be produced per year as per the mining plan should also be envisaged	ROM to be produced per year is 18 Mt and the same has been incorporated in para 1(h) of Summarised Data. ROM Quantity • 503.38 Mt from West and East Quarry • 138.96 Mt from NW Quarry • Total = 642.34 Mt
2	Sum1 (l) & 1 (m)	It appears from the annexure XIV that the lease has been acquired under CBA, while at Summary item 1 (l) under the heading period for which mining lease has been granted it is indicated as not applicable, this needs to be reconciled	Mining Lease is not applicable since mining area land is being acquired by NTPC under CBA Act.
3	Sum 1 (l)	No Expiry has been indicated against the date of expiry of earlier mining lease, while at para 2(d) date of expiry of the lease has been indicated as 2033, this needs to be reconciled	Mining Lease is not applicable since mining area land is being acquired by NTPC under CBA Act. The same has been reconciled at para 2(d) of Summarised Data.
4	Sum 2 (f)	As per the calendar plan of the approved mining plan proposed year of start of production appears to be 2008-09, while at para 2(f) of	The proposed year of start of the production as per present Revised Mining Plan (1st Revision) is 2016-17

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No.	Ref Para	Observations	Compliance to the Observations
		summary item it is indicated as Mar 2017. This needs to be reconciled	
5	Sum 2 (m)	Reason for delay in starting of the project should be envisaged in the item under reference.	Reasons for delay in starting of the project as per Approved Mining Plan are as under: a) Delay in issuance of NoC on jungle jhari land by Distt Admininistration due to which Forest Clearance was delayed. b) Revision of evacuation corridor on advice of FAC, MoEF. c) Delay in land acquisition. There was delay in physical verification & Certification of land records, disbursement of land compensation by Hazaribagh Distt. Administration took more time due to old / non availability of land records, inadequate State manpower at Distt/Block level, law & order problem etc. d) Non-performance by the earlier MDO. NTPC finally terminated the MDO contract wef 22.05.2014. The same has been now incorporated at para 2(m) of Summrised Data.
6	Sum 2(o)	The reason for increase in Land area from 384 to 485 Ha and reduction in land area outside block from 299 Ha to 267 Ha should be elaborated in the reference para and chapter IX of the mining plan.	There is a net increase in block area from 4626 Ha to 4695 Ha in comparison to the Approved Mining Plan as mentioned in the Table below. (reference para considered is 2 (p)) Reasons for change Area is given below: Particulars / Approved Mining Plan / Revised Mining Plan / +/- (Ha) / Reason Block Area excluding Area 'A' / 3943 / 3943 / / No Change Area 'A' / 384 / 485 / 101 / Detailed survey of Area 'A' at the time of detailed exploration has indicated total area as 485

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/05/2009-CPAM
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No.	Ref Para	Observations	Compliance to the Observations
			<table><tr><td></td><td></td><td></td><td></td><td>ha. Same has been notified under Section 7(i) of CBA</td></tr><tr><td>Outside Block area (For OB Dumps and infrastructure)</td><td>299</td><td>267</td><td>-32</td><td>Decrease in area as per direction of restrictions of MoEF</td></tr><tr><td>Total</td><td>4626</td><td>4695</td><td>69</td><td>Difference of 69 Ha is due to above two reasons</td></tr></table> The difference of 69 ha between the areas shown in the Approved Mining Plan and present Revised Mining Plan and Mine Closure Plan(1st Revision) is attributed due to increase of 101 ha in Area 'A' after demarcation & measurement, and reduction by 32 ha of the area taken for external dumping and infrastructure. • The revised area of PB-NW (Sector 'A') has been certified by CMPDI (enclosed as Annexure – XIX). • The above details have been now incorporated in the reference para and Chapter IX (Land Requirement) of the Revised Mining Plan and Mine Closure Plan(1st Revision)
7	Sum 3 (f)	Reason for deviation from lease boundary / required boundary from the boundary demarcated by CMPDIL/ SCCL/ NLC needs to be clarified.	The block boundary considered for mining is the same as provided by the CMPDI. However additional land has been envisaged and acquired for external dump and infrastructure such as Cross Country Conveyor, Railway Siding etc. outside the block boundary.
8	Sum 4(l) & 4(m)	The Grade of Coal indicated at Para 4.4.2 at Table 4.12/4.13 and other relevant pages area on obsolete system of grading of Coal. The GCV based grading of coal	GCV is calculated based on following formula Gross Calorific Value = (UHV + 3645 -75.4*M)/1.466 Accordingly GCV based garading is now provided at Table 4.12/4.13 and incorporated at all relevant pages of the Revised Mining Plan and Mine Closure Plan (1st Revision).

SANJIV KUMAR SINGH
Recognised Qualified Person
RQP/2015/2009-Chhatt
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

<table>
<tr><th>Sl. No.</th><th>Ref Para</th><th>Observations</th><th>Compliance to the Observations</th></tr>
<tr><td></td><td></td><td>should be provided at all the relevant pages</td><td></td></tr>
<tr><td>9</td><td>Sum - 4(o) & Chapter - 5</td><td>Seamwise Geological, Minable, blocked and corresponding extractable reserve should be indicated in the para under reference</td><td>Geological Reserves are given in following table and incorporated in Table-1.6 of Chapter-1.

million tonnes
<table>
<tr><th>Sl. No.</th><th>Reserves*</th><th>PB-West & East</th><th>PB-NW</th><th>Total</th></tr>
<tr><td>1</td><td>Net Geological</td><td>1436</td><td>137.6</td><td>1573.6</td></tr>
<tr><td>2</td><td>Amenable for Open Cast</td><td>707</td><td>121.03</td><td>828.03</td></tr>
<tr><td>3</td><td>Amenable for Underground</td><td>729</td><td>0</td><td>729</td></tr>
<tr><td>4</td><td>Mineable</td><td>503.39</td><td>138.98**</td><td>642.34</td></tr>
</table>
* Reserves up to 300m depth have been considered for opencast mining.

**33.18 Mt of coal shall be mined as Barrier& Batter Coal between PBW & PB-NW.

Seam wise Geological, Minable, blocked and corresponding extractable is now indicated in the reference para 4 (o) of summarized data and elaborated in Chapter 5.

Net reserves and extractable reserves and losses
(in Mt.)</td></tr>
</table>

SANJIV KUMAR SINGH
Recognised Occupied Person
No. 34011/(11)/2005-CPAM
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No	Ref Para	Observations	Compliance to the Observations

Seam	Net Reserve	Barrier Loss	Batter Loss	Mineable Reserves	Mining Loss	Extractable Reserve	% Extraction
V Top	22.29	0.72	1.57	19.99	0.59	19.40	87.06
V Bottom	15.56	0.51	1.10	13.96	0.41	13.55	87.06
V Combined	11.57	0.21	0.49	10.87	0.44	10.43	90.16
Seam - V	**49.42**	**1.44**	**3.16**	**44.82**	**1.44**	**43.38**	**87.78**
IV Top	19.82	0.64	2.23	16.95	0.50	16.46	83.01
IV Bottom	9.92	0.32	1.12	8.48	0.25	8.23	83.01
IV Combined	92.32	3.15	10.68	78.49	2.43	76.06	82.39
Seam - IV	**122.06**	**4.10**	**14.03**	**103.93**	**3.18**	**100.75**	**82.54**
III Top	27.45	1.21	2.04	24.20	0.70	23.49	85.59
III Bottom	9.83	0.43	0.73	8.66	0.25	8.41	85.59
III Combined	4.80	0.21	0.36	4.23	0.12	4.11	85.59
Seam - III	**42.08**	**1.85**	**3.13**	**37.10**	**1.08**	**36.02**	**85.59**
II Top	59.98	4.66	6.21	49.11	1.89	47.22	76.72
II Middle	139.75	11.83	11.24	116.68	3.83	112.86	80.75
II TM	76.09	7.29	5.63	63.18	1.77	61.40	80.70
II Bottom	116.05	10.76	9.90	95.39	2.89	92.50	79.71
II MB	17.90	1.71	1.32	14.86	0.42	14.44	80.70
II Combined	7.35	0.70	0.54	6.11	0.17	5.94	80.70

SANJIV KUMAR SINGH

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No.	Ref Para	Observations	Compliance to the Observations

Seam- II	**417.13**	**38.95**	**34.85**	**345.33**	**10.97**	**334.36**	**80.16**
I Top	36.93	2.72	9.39	24.81	0.77	24.05	65.11
I Middle	72.97	5.27	18.20	49.49	1.66	47.84	65.56
I TM	2.51	0.23	0.79	1.49	0.04	1.45	57.80
I Bottom	35.60	2.52	8.69	24.39	0.52	23.87	67.06
I MB	14.85	1.35	4.67	8.83	0.24	8.58	57.80
I Combined	3.58	0.33	1.13	2.13	0.06	2.07	57.80
Seam- I	**166.44**	**12.42**	**42.88**	**111.14**	**3.28**	**107.86**	**64.81**
LL	2.60	0.10	0.35	2.15	0.11	2.04	78.62
K5	0.13	0.01	0.06	0.06	0.01	0.05	36.32
K4	4.21	0.13	1.11	2.97	0.11	2.86	67.63
K3	3.34	0.22	0.86	2.26	0.06	2.20	65.95
K2	5.38	0.27	1.14	3.97	0.07	3.90	72.40
K1	15.24	1.25	4.65	9.34	0.41	8.93	58.62
Seam-Local	**30.90**	**1.98**	**8.17**	**20.75**	**0.77**	**19.98**	**64.66**
Total	**828.03**	**58.74**	**106.22**	**663.07**	**20.72**	**642.35**	**77.58**

**Additional 20Mt of proved reserve had not been considered in the above table as the same is considered to be mined by u/g.*

10	Sum 4(t)	*The percentage of extraction needs to be checked.*	Percentage of extraction is 78% and the same has been now incorporated at para 4(t) of Summarised Data and Table-5.6 of Chapter-5.

SANJIV KUMAR SINGH
Registered Doc. Sub. Person
No. 34011/15/2015/CPAM
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

<table>
<tr><th>Sl. No</th><th>Ref Para</th><th>Observations</th><th>Compliance to the Observations</th></tr>
<tr><td>11</td><td>Summary 5 (a)</td><td>The Schedule of starting of proposed underground mining at Para 1.6.2 is 20 year of start of mining operation, while at para 5.7 it is 10th year of start of mining operation,, while for assessment of amount to be deposited into escrow account has been envisaged from 9th year of mining operation, this needs to be reconciled.</td><td>Schedule of start of underground mining operations has been envisaged from 10th year of mining operations (P10). Schedule of UG Operation is as follows.
Schedule of Commencement PB (UG)
<table>
<tr><th>Sl No.</th><th>Activity</th><th>Time schedule</th></tr>
<tr><td>1</td><td>Detailed exploration of the underground area</td><td>4 years</td></tr>
<tr><td>2</td><td>Preparation of G.R.</td><td>1 year</td></tr>
<tr><td>3</td><td>Various Studies and Clearances</td><td>3 year</td></tr>
<tr><td>4</td><td>Preparation and approval of Mining Plan from MOC</td><td>1 year</td></tr>
<tr><td>3</td><td>Commencement of mining operations</td><td>1 years</td></tr>
<tr><td></td><td>Total time</td><td>10 years</td></tr>
</table>
Accordingly it has been now reconciled at para 1.6.2 and para 5.4 and Table 5.22 of Chapter-5</td></tr>
<tr><td>12</td><td>Sum 5(d) & 5(e)</td><td>Quantum of coal to be produced indicated at para 5(d) is 616.20 Mte, and extractble reserve indicated at para 4 (s) is 625.13</td><td>Total revised Quantum of coal to be produced from the block is 842.34 Mt and the same has been reconciled at para 5(d), extractable reserves and at para 4 (s).</td></tr>
</table>

SANJIV KUMAR SINGH
Recognised Qualified Person
No. [illegible]
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No	Ref Para	Observations	Compliance to the Observations
		Mte. while production plan for only 609.19 mte has been envisaged. This needs to be reconciled.	
13	Sum 6(a)	Calculation for Coal requirement for the company and % of coal likely to be met from this project needs to be envisaged in the following table: 	Calculation for Coal requirement for the company and % of coal likely to be met from this project is given below: **Sl. No. / Parameter / Unit / Value** 1 | Thermal Power (Coal-Commercial) Capacity as on 05.01.2016 | MW | 34425.00 2 | Heat Rate | kCal/kWh | 2386.00 3 | Average GCV of blended coal (Domestic + Imported) | kcal/kg | 3367.80 4 | Sp. Coal Consp. blended coal (Domestic+Imported) | kg/kWh | 0.71 5 | PLF | % | 0.80 6 | Coal Consp. (Domestic+Imported) | Million Tonnes | 171.41 7 | Coal Requirement (Domestic Coal) for 92% PLF | Million Tonnes | 207.81 8 | Coal availability from Pakri barwadih | MTPA | 18.00 9 | Other Blocks of NTPC | MTPA | 0.00 10 | Percentage of end use requirement to be met from Pakri Barwadih mine | % | 9% The same is also incorporated in Table-1.7 of **Chapter-1**.

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No	Ref Para	Observations	Compliance to the Observations
14	Chapter - V	There is some incoherency in coal production programme mentioned at table 5.36 & 5.37. This needs to be reconciled.	Production Programme has been revised after considering the barrier & batter coal between North West quarry and West Quarry. The integrated calendar plan has now been incorporated in Table 5.16. Calendar Program of Pakri Barwadih is given in following page.

Production Years	Coal Production (Mt)					OB Removal (Mm3)					Strip Ratio (m3/t)		
	West Quarry	East Quarry	PB West & East	NW Quarry	Total from PB	West Quarry	East Quarry	PB West & East	NW Quarry	Total PB Mm3	West & East Quarry	NW Quarry	PB
1	2.34	0.8	3.14		3.14	5.94	2.92	8.89		8.89	2.82		2.82
2	3.17	1.1	6.27		6.27	19.27	0.89	18.32		18.32	2.92		2.92
3	6.48		6.48		6.48	21.12		21.12		21.12	2.49		2.49
4	9.5		9.5	0.5	10	30.21		30.21	4.1	30.21	2.75	8.20	3.02
5	10		10	1	11	25.03		25.03	8.2	33.23	2.50	4.20	3.02
6	10		10	2	12	35.51		35.51	11.7	47.21	3.55	5.88	3.93
7	10		10	3	13	41.44		41.44	12	53.44	4.14	4.00	4.11
8	10		10	2	13	41.52		41.52	12	53.52	4.15	4.00	4.12
9	10		10	3	13	41.5		41.5	12	53.5	4.15	4.00	4.12
10	10		10	3	13	41.5		41.5	8.2	49.7	4.15	2.73	3.82
11	12		12	3	15	44		44	8.2	52.2	3.67	2.73	3.48
12	13		13	3	16	44		44	8.2	52.2	2.92	2.73	2.95
13	13		13	3	16	52.76		52.76	8.2	60.96	3.52	2.73	3.38
14	13		13	3	16	66.04		66.04	8.2	74.24	4.40	2.73	4.12
15	15		15	3	18	66		66	8.2	74.2	4.40	2.73	4.12
16	15		15	3	18	66		66	8.2	74.2	4.40	2.73	4.12
17	15		15	3	18	66		66	8.2	74.2	4.40	2.73	4.12
18	15		15	3	18	66.01		66.01	8.2	74.21	4.40	2.73	4.12
19	15		15	3	18	66.01		66.01	8.2	74.21	4.40	2.73	4.12
20	15		15	3	18	66.01		66.01	8.2	74.21	4.40	2.73	4.12
21	15		15	3	18	66.01		66.01	8.2	74.21	4.40	2.73	4.12
22	15		15	3	18	66.01		66.01	8.2	74.21	4.40	2.73	4.12

SANJIV KUMAR SINGH
Nominated Qualified Person
No. [illegible]
Ministry of Coal, Govt. of India

पवन देव जमता/PAWAN DEV JAMTA
सा. भूप्रबंधक (अधिकारी)
Dep. Dy. General Manager (Commercial)
पी ए सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No.	Ref Para	Observations	Compliance to the Observations

23	15		15	3	18	60		66	9.2	74.2	4.40	2.73	4.12
24	12		15	3	18	50		44	8.2	74.2	4.40	2.73	4.12
25	11	4	15	3	18	31.2	31.95	63.95	9.2	71.25	4.20	2.73	3.96
26	7	8	15	3	18	25	38.95	62.95	8.2	71.15	4.20	2.73	3.96
27	1.21	13.79	15	3	18	19.5	44.5	64	9.2	74.2	4.40	2.73	4.12
28		15	15	3	18		66	66	9.2	76.2	4.40	3.07	4.18
29		15	15	3	18		66	66	11.4	77.4	4.40	3.80	4.30
30		15	15	3	18		66	66	11.4	77.4	4.40	3.80	4.30
31		15	15	3	18		66	66	11.4	77.4	4.40	3.80	4.30
32		15	15	3	18		66	66	11.4	77.4	4.40	3.80	4.30
33		15	15	3	18		66	66	11.4	77.4	4.40	3.80	4.30
34		15	15	3	18		66	66	11.4	77.4	4.40	3.80	4.30
35		15	15	3	18		66	66	11.4	77.4	4.40	3.80	4.30
36		15	15	3	18		66	66	11.4	77.4	4.40	3.80	4.30
37		15	15	3	18		66	66	11.4	77.4	4.40	3.80	4.30
38		10	10	3	17		60	60	10.1	74.3	4.60	3.43	5.67
39		3.89	3.89	3	5.89		12.89	12.89	10.84	23.03	3.29	3.55	3.29
40				3	3				9.00	9		3.00	3.00
41				3	3				9.00	9		3.00	3.00
42				3	3				9.00	9		3.00	3.00
43				3	3				9.00	9		3.00	3.00
44				3	3				9.00	9		3.00	3.00
45				3	3				9.00	9		3.00	3.00
46				3	3				9.00	9		3.00	3.00
47				3	3				9.00	9		3.00	3.00
48				1	1				8.50	8.5		2.83	2.83
49				3	3				7.00	7		2.33	2.33
50				3	3				0.75	0.75		1.82	1.82
51				2	2				1.50	3.5		1.75	1.75
52				1.48	1.48				1.48	1.48		1.01	1.01
Total	311.75	191.68	503.38	138.96	642.34	1210.45	888.29	2099.79	427.97	2016.19	4.17	2.16	3.86

SHRI SHRIGOPAL/PAWAN DEV JAMWA
Dy. General Manager (Environment)
NTPC LIMITED
EC/CA/RA No.-34011/05/2015/(Pt)

SANJIV KUMAR SINGH
Recognised Technical Person
No. 3401/(E)/2002-Coal
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

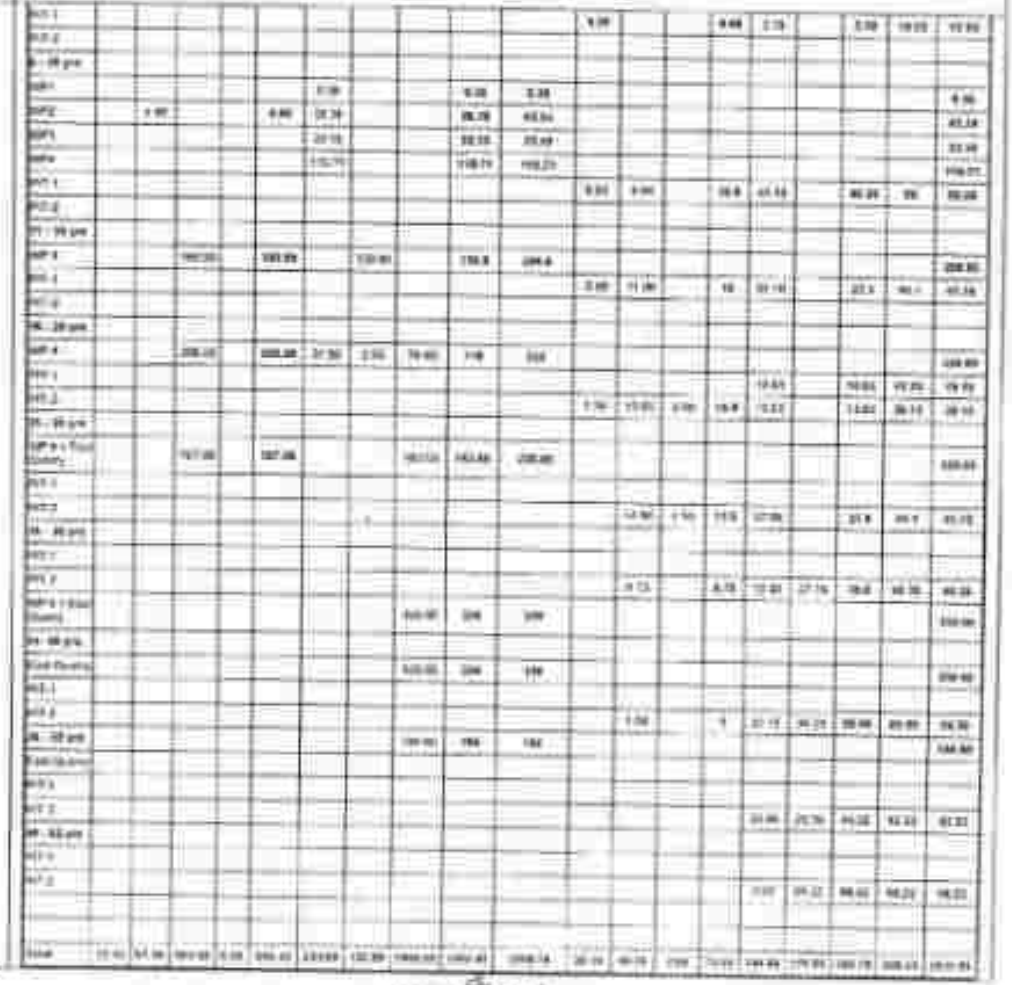
Sl. No	Ref Para	Observations	Compliance to the Observations
15	Chapter - V	It is apparent from the details of the mining plan that the details of the mining plan has been envisaged in two parts one is for East- West quarry and another is for North west quarry, but details of the complete block is missing in almost all chapters. This needs to be corrected.	Details of the mining plan earlier envisaged has now been integrated and presented in all relevant chapters. Chapter V (Mining) has been now modified considering the barrier & batter coal between PB-West and PB-NW. Additional 33.18 Mt. of coal shall be mined out and life of mine shall be 52 years. Other chapters such as Land Requirement, Environment Management plan & Mine Closure Plan have also been presented in the same manner. The details of the integration have also been shown in respective stage plans also and an additional stage plan (40th Year) has also been prepared and attached with this Revised Mining Plan & Mine Closure Plan (1st Revision).
16	Chapter - V	The dumping schedule indicated at Table 5.10 needs to be rechecked.	Dumping schedule in Chapter V (Mining) has been rechecked and accordingly modified in Table 5.11. Revised Dumping schedule is given below: **Phased overburden dumping /waste disposal and capacity of dumps**



SANJIV KUMAR SINGH
Authorised Signatory

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No.	Ref Para	Observations	Compliance to the Observations
			[illegible]



SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(5)/2005-CPAM
Ministry of Coal, Govt. of India

200

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No	Ref Para	Observations	Compliance to the Observations
17	Chapter - V	Percentage of external dump for the project is 62.62 percent with 69.51 % in PB East West Quarry and 21.09 % in NW quarry. It appears that the percentage of external dump is significantly high. Possibility of reducing the external dump needs to be looked into.	Out of total overburden of 2537.06 Mcum, 692.44 Mcum is to envisaged to be placed externally and 1844.62 Mcum is envisaged to be backfilled as internal dump's. Accordingly the percentage of external dump works out to 27 % and 73% respectively. This has been depicted in Table 5.12 of chapter V. Waste Management has been elaborated in para 5.3.8 of chapter – V **Percentage Overburden Dumping** See table below
18	Chapter - V	It appears that some of the coal is being locked in the barrier of NW Quarry and PB East – West Quarry. The liquidation plan for the same needs to be furnished.	The details of the integration and liquidation scheme for the coal being locked in the barrier of NW Quarry and PB East – West Quarry has been elaborated in Chapter V (Mining) and the same has also been depicted in the Final Stage Quarry Plan and 40th year stage plan. Additional 33.16 Mt. of coal shall be mined out and life of mine shall be 52 years. Total extractable reserves have now increased from 609.18 to 642.34 Mt.
19	Sum 7 (g) and Chapter - X	Monitoring schedule of some of major parameters viz air and noise are missing. this should be envisaged	Monitoring schedule of Air and Noise has been envisaged and has been accordingly mentioned at para Sum 7 (g) and Chapter – X (Environment Management plan) at Table 10.18.

	PB West & East (Mm3)	PB NW(Mm3)	PB (Mm3)	PB West an East (%)	PB NW (%)	PB (%tage)
External Dump	619.00	73.44	692.44	29.49%	16.76%	27.29%
Internal Dump	1479.83	364.79	1844.62	70.51%	83.24%	72.71%
Total	2098.83	438.23	2537.06	100.00%	100.00%	100.00%

SANJIV KUMAR SINGH

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No.	Ref Para	Observations	Compliance to the Observations
20	Sum 7 (b) and Chapter XI Para 11.20	The Land use pattern pre-mining, during mining, post mining and post closure should be furnished in a tabular form. Justification for Proposed area, UG entry etc should be envisaged.  The quantum of land likely to be damaged due to mining needs to be envisaged. Further post mining land likely to be restored and their future use needs to be elaborated.	Pre mining land use, land use during mining, post mining land use and post closure land use pattern are presented in the following tables. Post mining land likely to be restored and their future use is elaborated in Chapter-9 

SANJIV KUMAR SINGH

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No	Ref Para	Observations	Compliance to the Observations
			* Within Excavation area

Stage	Cumulative area(Ha)							Cumulative Plantation area(Ha)					
	Excavation	Backfilling	Void	Topsoil Dump	Ext. Dump	Others	Total	Backfill	Dump	Grove area	Infrastructure	Agriculture/ Grazing land	Total
Y1	57.18	0.00	57.18	26.25	44.30	4527.27	4695.00	0.00	0.00				0.00
Y2	242.98	0.00	242.98	58.00	155.23	4238.79	4695.00	0.00	29.00				29.00
Y3	292.68	0.00	292.68	67.12	361.87	4093.32	4695.00	0.00	43.00	50.00			85.00
Y4	755.34	389.76	400.38	25.18	335.61	3803.03	4695.00	0.00	260.00	32.00			260.00
Y5	1075.34	512.34	515.00	25.18	811.07	2722.51	4695.00	67.00	456.00	15.00			523.00
Y6	1241.81	908.39	943.41	0.00	912.14	2239.44	4695.00	111.00	883.00	20.00			966.00
Y7	1835.00	1153.00	761.00	0.00	885.00	5875.00	4695.00	524.00	885.00	38.00	214.00	445.00	2114.00
Y8	1882.00	1294.00	888.00	0.00	885.00	5628.00	4695.00	581.00	885.00	48.00	210.00	713.00	2495.00

Backfill Percentage = 65.28%
Plantation Area = 1772 ha

21	Chapter - X	The Balance life of the mine is 41 years, while for assessment of amount to be deposited in Escrow account life of 43 years has been considered. This needs to be corrected.	In view of mining of coal locked in barrier and batter between North West Quarry and West Quarry Life of the mine is now increased from 41 years to 52 years. The mine closure cost and its deposition in the Escrow Account is accordingly revised and indicated in Table-11.18 of Chapter-XI of Mine Closure Plan.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. [illegible]
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No.	Ref Para	Observations	Compliance to the Observations

Year wise Closure Cost for Pakri Barwadih Mine

Closure Cost of PB Coal Block

Year	Average cost per annum on current cost (In Crores)			Year wise Expenditure with 5 % escalation(In Crores)			Cummulative amount deposited in the Escrow account excluding interest (Rs Crore)	Maximum amount excluding interest to be released w.r.t. expenditure incurred (Rs Crore)
	Opencast	Underground	Total	Opencast	Underground	Total		
P1	5.67	0.00	5.67	5.67	0.00	5.67	5.67	
P2	5.67	0.00	5.67	5.96	0.00	5.96	11.63	
P3	5.67	0.00	5.67	6.25	0.00	6.25	17.89	
P4	5.67	0.00	5.67	6.57	0.00	6.57	24.45	
P5	5.67	0.00	5.67	6.90	0.00	6.90	31.35	
P6	5.67	0.00	5.67	7.24	0.00	7.24	38.59	25.96
P7	5.67	0.00	5.67	7.60	0.00	7.60	46.19	
P8	5.67	0.00	5.67	7.98	0.00	7.98	54.18	
P9	5.67	0.00	5.67	8.38	0.00	8.38	62.56	
P10	5.67	0.78	6.46	8.80	0.78	9.58	72.14	
P11	5.67	0.78	6.46	9.24	0.82	10.07	82.21	32.64
P12	5.67	0.78	6.46	9.70	0.85	10.57	92.78	
P13	5.67	0.78	6.46	10.19	0.91	11.10	103.87	
P14	5.67	0.78	6.46	10.70	0.95	11.65	115.53	
P15	5.67	0.78	6.46	11.23	1.00	12.23	127.76	
P16	5.67	0.78	6.46	11.79	1.06	12.85	140.61	44.49
P17	5.67	0.78	6.46	12.38	1.10	13.49	154.09	
P18	5.67	0.78	6.46	13.00	1.16	14.16	168.26	
P19	5.67	0.78	6.46	13.65	1.22	14.87	183.13	

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

Sl. No	Ref Para	Observations	Compliance to the Observations

P20	5.67	0.78	6.45	14.34	1.25	15.61	198.7x		
P21	5.67	0.78	6.46	15.05	1.34	16.39	215.14	56.78	
P22	5.67	0.79	6.46	15.81	1.41	17.21	232.35		
P23	5.67	0.79	6.46	16.60	1.48	18.08	250.43		
P24	5.67	0.78	6.46	17.43	1.55	18.98	269.40		
P25	5.67	0.78	6.46	18.30	1.63	19.93	289.33		
P26	5.67	0.78	6.46	19.21	1.71	20.92	310.25	72.47	
P27	5.67	0.78	6.46	20.17	1.80	21.97	332.23		
P28	5.67	0.78	6.46	21.18	1.89	23.07	355.30		
P29	5.67	0.78	6.46	22.24	1.98	24.22	379.52		
P30	5.67	0.78	6.46	23.35	3.08	25.43	404.95		
P31	5.67	0.78	6.46	24.52	2.19	26.71	431.66	97.50	
P32	5.67	0.78	6.46	25.75	2.29	28.04	459.70		
P33	5.67	0.78	6.46	27.03	2.41	29.44	489.14		
P34	5.67	0.78	6.46	28.39	2.53	30.91	520.06		
P35	5.67	0.78	6.46	29.80	2.66	32.46	552.52		
P36	5.67	0.78	6.46	31.29	2.79	34.08	586.60	119.03	
P37	5.67	0.78	6.46	32.86	2.93	35.79	622.39		
P38	5.67	0.78	6.46	34.50	3.08	37.58	659.97		
P39	5.67	0.78	6.46	36.23	3.23	39.46	699.42		
P40	5.67	0.00	5.67	38.04		38.04	737.46		
P41	5.67	0.00	5.67	39.94		39.94	777.40	147.06	
P42	5.67	0.00	5.67	41.94		41.94	819.34		
P43	5.67	0.00	5.67	44.03		44.03	863.37		
P44	5.67	0.00	5.67	46.24		46.24	909.61		
P45	5.67	0.00	5.67	48.55		48.55	958.16		
P46	5.67	0.00	5.67	50.98		50.98	1009.13	176.56	
P47	5.67	0.00	5.67	53.52		53.52	1062.65		
P48	5.67	0.00	5.67	56.20		56.20	1118.85		
P49	5.67	0.00	5.67	59.01		59.01	1177.87		

SANJIV KUMAR SINGH

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No	Ref Para	Observations	Compliance to the Observations

P50	5.67	0.00	5.67	61.96		61.96	1239.83	
P51	5.67	0.00	5.67	65.06		65.06	1304.89	223.34
P52	5.67	0.00	5.67	68.31		68.31	1373.20	
End of Mine Closure								351.34
Total Cost	266.02	23.63	318.55	1221.00	52.12	1373.20		1373.20

Note:

- *The above estimated closure cost is based on WPI for "All commodities" as on November 2015. The WPI value for "All Commodities" as downloaded from website of "Office of Economic Advisor" is enclosed as* ***Annexure XX***
- *Escrow Account has already been opened for area of 4625 ha corresponding mine closure cost is Rs. 799.19 Crores. (Copy of Approval of Mine Closure Plan (MoC) is enclosed at Annexure-XIII and the copy of Approved Mine Closure Plan (Report) is enclosed at Annexure XIIIA.*

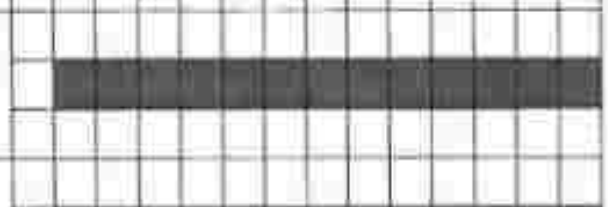
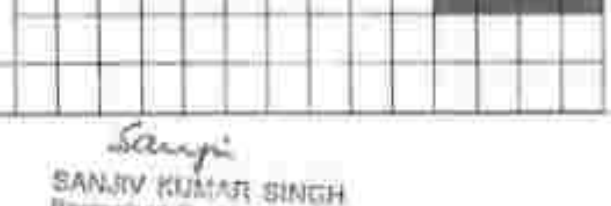
Sl. No	Ref Para	Observations	Compliance to the Observations
22	Chapter XI Para 11.4	Against 1907.73 Ha of agricultural land only 466 Ha of agricultural land has been proposed to be restored post mining, which is significantly low. The possibility of optimisation for the same should be explored.	In the present Revised Mining Plan and Mine Closure Plan (1st Revision), an effort has been made for the restoration of agricultural land to the maximum considering the practical difficulties at the time of Mine Closure. However, the possibility of enhancing the agricultural land shall be explored after availability of dump area and quantum of restoration/reclamation. All efforts shall be made to enhance it during the Final Mine Closure Operations.
23	Chapter XI Para 11.20	Bar Chart indicating Action Plan & manpower requirement for closure activities should be indicated for the life of the project plus 3 years.	Bar Chart for additional 3 years beyond 52 years of mine life is placed at Table 11.21 of Chapter-XI.

Manpower Requirement for Closure Activities

Sl. No.	Activities to be undertaken	Manpower of NTPC	P-6	P-11	P-16	P-21	P-26	P-31	P-36	P-41	P-46	P-51	P-52	P-53	P-54	P-58
1	Mined Area & Waste Management															

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(19)/2005-CPAM
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No.	Ref Para	Observations	Compliance to the Observations			
			1.1	Plantation along the block boundary, embankment, approach road, CHP Cross country conveyor, Railway siding etc and around the mine infrastructure area	Outsourced (under the supervision of NTPC) Environmental Engr-1, Surveyor-2, Chairman-a	
			1.2	Physical reclamation of internal and external dump (Leveling, Spreading of top soil, toe wall formation, drain etc.)		
			1.3	Physical reclamation of land of boiler and haul road		
			1.4	Bio reclamation of above items		
			1.5	Making safe approach up to the water lagoon for future uses		

SANJIV KUMAR SINGH
Nominated Competent Person
No. 34011/(15)/2015-CPAM
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No.	Ref Para	Observations	Compliance to the Observations			
			1.6	Barbed wire fencing as per requirement		
			3	Environmental Management (Air, Water, Waste, Noise etc.)		
			2.1	Thorough inspection of external and stabilized external dumps to find state of its stabilization & Bio- reclamation	Supervisor s-2 in each shift, Environmental Engineer-1 in each shift	
			2.2	Action to stabilize & vegetate uncovered patches, if any	Job Outsourced	
			2.3	Inspection of garland drains & bunds around external dumps to prevent leachate water from entering natural water courses directly	Supervisor s-2 in each shift, Mining Engineer-1 in each shift	
			2.4	Inspection of embankment to prevent entry of uncontrolled water to mine	Supervisor s-2 in each shift, Engineer-1 in each shift	

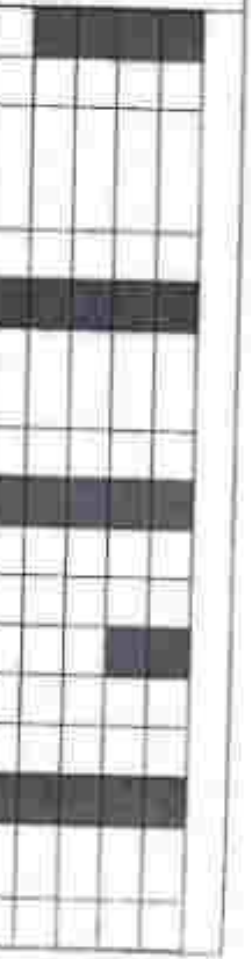
SANJIV KUMAR SINGH
Approved Qualified Person
No. 34011/(10)/2009-CPAM
Ministry of Coal, Govt. of India

Sl. No.	Ref Para	Observations	Compliance to the Observations
			2.5 Strengthening of embankment
			2.6 Quarterly sampling of water to know its quality status — Lab Assistant-1, Helper-1
			2.7 Record keeping, monitoring and reporting — Surveyor-1, Chainman-3
			3 Management of Infrastructure & Mining Machineries
			3.1 Decommissioning of structurals & semi-permanent constructions
			3.2 Renovation of Mine/Project office, Canteen, Training Centre, Rest shelter etc. — Job Outsourced Civil Engineer-1, Supervisor-1, Surveyor-1, Chainman-2
			3.3 Cleaning of land for vegetation over the area

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

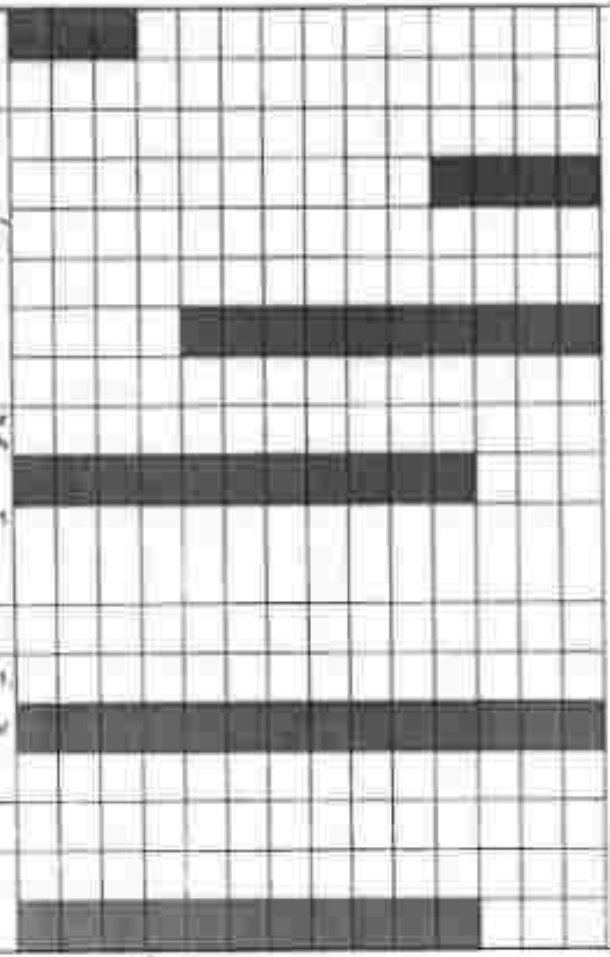
Sl. No	Ref Para	Observations	Compliance to the Observations		
			3.4	Dismantling of machineries	
			4	Actions for safety & security of local community due to abandonment of the mine or part of the mine	
			4.1	Regular inspection of the mined out area, O.B. dumps for assessing the closure job.	Supervisor-2 in each shift, Mining Engineer-1 in each shift
			4.2	Action, if required, for making safe, the drainage areas, fire areas etc.	
			4.3	Making 2 metre high pucca wall on the slope of internal dumps, along the estimated water level.	Supervisor-1 in each shift, Civil Engineer-1 in each shift
			4.4	Making 2 meter high pucca wall around the top edge of the mined out area, where immediate void exists at the quarry edge.	
			4.5		



SANJIV KUMAR SINGH
Recognized Qualified Person
No. 34011(10)/2008-CPAM
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No	Ref Para	Observations	Compliance to the Observations		
				Making 2 meter high pucca wall around the external OB Dump	
			4.6	Closing with walling and gates in the haul road, to prevent advertant entry into water lagoon.	Supervisor-1 in each shift
			4.7	Filling the haul road up to ground level, from surface up to sealing gate.	
			4.8	Survey of the total project area for updating mine plans Under Coal Mine Regulation.	Supervisor-2 in each shift, Mining Engineer-1 in each shift
			5	Social & Economic Aspects	
			5.1	C.S.R activities.	Engineer-1, HR executive/ staff-2
			6	Execution & Supervisor	
			6.1		



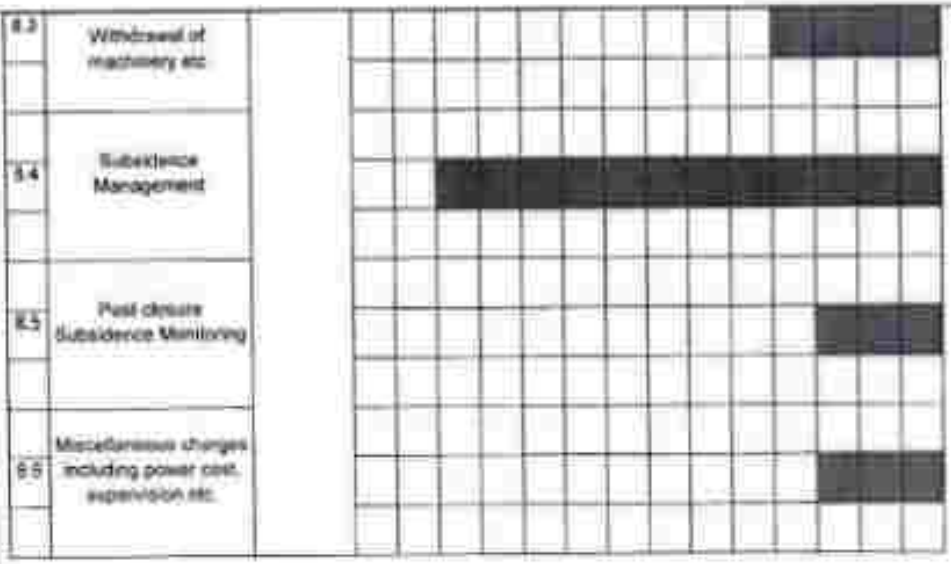
SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No.	Ref Para	Observations	Compliance to the Observations
			Purchasing/hiring of equipment for closure activities etc
			E.2 Execution & Supervision of the activities by mining personal. — Mining Engineer-1, HR executive/ staff-2
			7 Miscellaneous charges including power cost, deployment of security personal, 3 years post closure environmental monitoring, supervision , power cost etc. — Engineer-2, HR executive/ staff-3
			8 Underground Mining
			8.1 Sealing of Mine entries for UG mine
			8.2 Isolation stooping, if required



SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/15/2009-CPAM
Ministry of Coal Govt. of India

Sl. No	Ref Para	Observations	Compliance to the Observations
			8.3 Withdrawal of machinery etc 8.4 Subsidence Management 8.5 Post closure Subsidence Monitoring 8.6 Miscellaneous charges including power cost, supervision etc. 
24	Chapter XI Para 11.21	As per the Calendar plan of the project the balance life of the mine is 41 Year for OC working, while in the assessment of escrow account balance life of 43 years has been considered. This needs to be reconciled. Further the WPI as on base date should be taken for	Refer submission at Para 21 of this reply. WPI for the month of November '2015 has been considered for the calculation of amount to be deposited in escrow account against Mine Closure. WPI as on August'09 — 129.60 WPI as on base date " November'15" — 177.60

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No	Ref Para	Observations	Compliance to the Observations
		escalation of amount to be deposited in Escrow account.	

Escalation rate of Closure cost		1.37
Rate of compounding of Annual Closure Cost		5.00%
Amount to be deposited into Escrow Account after compounding @ of 5% "Rs. in Crs"		1373.200
Particulars	**UG**	**OC**
Base Rate of Closure Cost "Rs. Crs./Ha"	0.010	0.060
Closure Cost "Rs. Crs/Ha"	0.014	0.082
Lease Area	1106.96	3588.04
Amount to be deposited into Escrow Account "Rs. in Crs"	52.120	1321.090
Amount already deposited into Escrow Account "Rs. in Crs"	0.000	0.000
Net Amount to be deposited into Escrow Account "Rs. in Crs"	52.120	1321.090
Balance Life of the project "in Yrs"	30	52
Annual Closure Cost	1.737	25.406

SANJIV KUMAR SINGH
Registered Qualified Person
No. 34011/[illegible]/CPAM
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No	Ref Para	Observations	Compliance to the Observations
25	Sum – 8 (a) & Chapter XI	***The Mine closure activities required to be taken should be in coherence with the guidelines of the Mine Closure plan and also indicative cost with the basis of calculation of the cost of mine closure activities needs to be envisaged***	The Mine closure activities are now as per the guidelines and have been accordingly elaborated Table No. 11.22 in the Chapter XI. The estimated total expenditure for Mine Closure Activities in Sum- 8 (a) has also been accordingly modified in view of the revised mine life. Tentative assessment of activitywise closure cost is given in following table.

Provision for Expenditure for Mine Closure of Pakri Barwadih Coal Mining Block

Amount in Rs. Crores

Sl. No.	Activities to be undertaken	P-6	P-11	P-16	P-21	P-26	P-31	P-36	P-41	P-46	P-51	P-55	Cost
1	**Mined Area & Waste Management**	14.33	15.30	8.24	12.24	8.43	12.17	12.85	24.99	25.99	51.45	45.27	**225.99**
1.1	Plantation along the block, boundary, embankment, approach road, CHP Crusher, country conveyor, Railway siding etc. and around the mine infrastructure area	14.33	15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.53
1.2	Physical reclamation of internal and external dump (Leveling, Spreading of top soil, low well formation, drain etc.)	0.00	0.00	8.24	12.24	8.43	12.17	12.85	15.00	15.30	0.00	0.00	14.25
1.3	Physical reclamation of land of bottom and haul road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	10.00	25.00	0.00	40.00
1.4	Bio reclamation of above items	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.25	10.00	25.36
1.5	Mining safe approach up to the water lagoon for future use	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.25	10.00	24.36
1.6	Barbed wire fencing as per requirement	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	10.25	10.00	30.51

SANJIV KUMAR SINGH
Re-printed Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No.	Ref Para	Observations	Compliance to the Observations
			3 Environmental Management (Air, Water, Waste, Noise etc.) 2.97 6.13 16.19 29.43 36.85 28.21 40.36 33.00 21.81 21.81 55.97 291.14
			3.1 Thorough inspection of external and dumps to find state of its stabilization & Re-vegetation 0.00 1.02 1.03 2.97 1.99 2.43 2.54 2.00 3.08 4.12 9.44 29.42
			3.2 Action to stabilize & vegetate unvegetated patches, if any 0.92 2.04 3.00 4.04 3.07 4.07 5.00 4.00 4.15 8.23 12.87 32.66
			3.3 Inspection of gallery drains & bunds around external dumps to prevent leachate water from entering natural water courses directly 0.00 3.04 3.09 4.04 3.07 4.07 5.00 4.00 4.15 8.23 12.87 52.89
			3.4 Inspection of embankment to prevent entry of uncontrolled water to mine 0.00 0.00 0.00 7.41 5.00 7.50 7.42 0.00 0.00 0.00 0.00 33.33
			3.5 Strengthening of embankments 0.00 0.00 0.00 7.41 5.00 7.50 7.42 0.00 0.00 0.00 0.00 23.33
			3.6 Quarterly sampling of water to know its quality status 0.00 0.00 0.34 0.00 0.43 0.50 12.00 0.00 16.20 0.00 33.18 71.62
			3.7 Record keeping, monitoring and reporting 2.97 1.02 1.03 2.97 1.08 2.43 2.54 2.00 1.04 1.03 1.03 20.34
			4 Management of Infrastructure & Mining Machineries 0.00 16.20 0.00 0.00 16.80 24.30 25.20 30.00 41.04 41.10 64.30 263.82
			4.1 Decommissioning of structures & semi- permanent constructions 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 20.11 41.10 64.30 125.29
			4.2 Renovation of Mine/Project office, Canteen, Training Centre, Rest shelter etc. 0.00 0.18 0.00 0.00 0.43 0.00 0.00 10.00 0.00 0.00 0.00 10.52

SANJIV KUMAR SINGH
Competent Qualified Person
Reg. 34011/(10)/2022-CPAM
Ministry of Coal, Govt. of India

Sl. No	Ref Para	Observations	Compliance to the Observations
			3.3 Clearing of land for vegetation over the mine
			3.4 Dismantling of machineries
			4 Actions for safety & security of local community due to abandonment of the mine or part of the mine
			4.1 Regular inspection of the mined out area, OB dumps for assessing fire hazards etc
			4.2 Action, if required, for making safe the discharge areas, fire areas etc
			4.3 Making 2 meter high proper wall on the slope of internal dumps, along the estimated water level
			4.4 Making 3 meter high proper wall around the top edge of the mined out area, where immediate wall levels at the quarry edge
			4.5 Making 3 meter high proper wall around the external OB Dump
			4.6 Closing with walling and gates in the haul road, to prevent unauthorised entry into water lagoon
			4.7 Filling the haul road up to ground level from surface up to sealing gate

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011(15)/2009-CPAM
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No	Ref Para	Observations	Compliance to the Observations

4.8	Survey of the total project area for updating mine plans under Coal Mine Regulation	0.73	0.51	0.83	1.23	0.94	1.22	1.27	1.00	1.04	2.08	0.93	10.71
5	**Social & Economic Aspects**	7.17	5.10	8.24	0.00	8.43	9.00	12.00	10.50	10.39	0.00	2.00	**82.81**
5.1	C.S.R activities	7.17	5.10	8.24	0.00	8.43	9.00	12.00	10.50	10.39	0.00	2.00	82.81
6	**Execution & Supervision**	0.00	2.00	3.00	0.00	0.00	12.11	0.00	15.00	15.00	30.67	16.29	**88.79**
6.1	Purchase/Hiring of equipment for mineral activities etc.	0.00	0.00	0.00	0.00	0.00	12.11	0.00	10.00	10.00	20.00	0.00	52.11
6.2	Execution & Supervision of the activities by mining personal	0.00	2.00	3.00	0.00	0.00	0.00	0.00	5.00	5.00	10.67	16.29	36.67
7	**Miscellaneous Charges**	0.00	0.00	0.00	0.00	2.00	0.00	2.54	2.00	2.08	4.12	0.44	**13.167**
7.1	Miscellaneous charges including power cost, deployment of security personal, 3 years post closure environmental monitoring, supervision , power cost etc.	0.00	0.00	0.00	0.00	0.00	0.00	2.54	2.00	2.08	4.12	0.44	13.17
8	**Underground Mining**	0	0	0	0	0	0	0.5468	5.3973	25.7727	41.109	144.81	**223.09**
8.1	Sealing of Mine entries for UG mine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	96.54	96.54
8.2	Isolation stopping, 4 nos/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.15	10.29	0.00	15.44
8.3	Withdrawal of machinery etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.15	10.29	0.00	15.43
8.4	Subsidence Management	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.15	10.29	0.00	15.45

SANJIV KUMAR SINGH
Nominated Competent Person
No. 34011/13/2009-CPAM
Ministry of Coal, Govt. of India

Sl. No.	Ref Para	Observations	Compliance to the Observations

5.5	Post closure Subsidence Monitoring	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.18	32.14
8.5	Miscellaneous charges including power cost, supervision etc.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	10.28	10.04	38.87
	Total estimated expenditure incurred (in Rs Crore)	**25.29**	**32.54**	**44.49**	**56.76**	**72.47**	**92.99**	**118.60**	**147.86**	**175.30**	**225.34**	**381.34**	**1373.21**

26	Sum 9 (a)	The base date of the mining plan should be considered for assessment of balance life, balance reserve and WPI as on that date should be considered for assessment of balance life to be deposited annually in the Escrow Account, while in this case the base date is August 2015 and WPI as on June 2015 has been considered for assessment of amount to be deposited in escrow account. This needs to be corrected.	The WPI is issued one month prior to the current month on the website of office of Economic Advisor, GoI. Accordingly, the base date considered in this Revised Mining Plan and Mine Closure Plan(1st Revision) for Monthly Wholesale Price Index for "All Commodities" is November '2015 while the base date of the this Revised Mining Plan and Mine Closure Plan(1st Revision) has been considered as January '2016. Available WPI figures are placed at Annexure-XX of Mining Plan.
27	Chapter - XI	The Mine Closure plan should be in line with the Guideline for the formulation of MCP uploaded in MoC website. Some of the parameter namely Para – 6 to Para	Mine Closure plan, Chapter – XI, has been prepared in line with guidelines issued by MoC and all the parameters have been considered including para 6 to 8 namely Financial Assurance, Responsibility of the Mine owners and Provision for Mine Closure. The same is now elaborated in the Chapter-XI.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/15/2008-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Director Corporate Manager (Coal Mining)
NTPC LIMITED
SOC, A-8A, Sector-24, Noida-201301 (U.P.)

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No.	Ref Para	Observations	Compliance to the Observations
		-B needs to be incorporated in the Mining Closure portion of the mining plan	
28		Before dumping over the dip side coal bearing area of the block the opencast production potential of that area should be re-examined	As per the available information seams occur at a depth of more than 300m in the dip side area and can be mined out by U/G method. The opencast potential would however be re-examined
29		As per the current guideline all projects of capacity more than 2.50 Mtpa should have integrated washery. This needs to be elaborated in the mining plan	Coal washability study has not yet been carried out for Pakri Barwadih Coal. Coal quality parameters obtained from the proximate analysis of coal revealed that ash percentage in all probability is likely to remain 34% or below which does not call for commissioning of coal washery. However space provision is kept for providing a Coal Washery at mine end in future, if required.
30		Reserves locked below nala should be included in the extractable reserve and should be planned for mining.	Reserves below the nala have now been included in the mineable/extractable reserves and has been envisaged for mining. This has enhanced the mine life from 41 years to 52 years.
		Annexure	
31		Most of the Annexures attached are not legible. Ligible copies of the same should be attached.	Legible copies of Annexures are now enclosed.
32	Annexure - III	Annexure – III shown in the list of Annexure in missing in the mining plan document	Annexure – III (Copy of approved Mine Closure Plan) is now attached.

RAJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(1)/2009-CPAM
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No	Ref Para	Observations	Compliance to the Observations
33		A certificate required as per the guideline, regarding confirmation from RQP that he has verified the block area with the relevant plans supplied by CMPDI/ SCCL / NLC and area covered by the mining plan does not encroach on any other coal lignite block, needs to be attached. The lining of the certificate should be in line with the guideline.	Certificate is attached at Annexure – XVI-C
34		A certificate required as per the guideline that the mine will be developed as per the approval of the mining plan from Ministry of coal and all other approvals, as required will be obtained from relevant authorities issued by the empowered representative of / or Block allottee / applicant should be attached. The lining of the certificate should be in line with the guideline.	Certificate is attached at Annexure – XVII
35		The lining of the Annexure – XVI C & XVI D should be exactly the same as required in the guideline for formulation of Mining plan.	The lining of the Annexure – XVI C & XVI D are now as per the guideline for formulation of Mining Plan.
36		Certificate of CMPDIL that the block boundary considered in the Mining Plan is in line with the Block	Certificate is attached at Annexure – XIX.

SANJIV KUMAR SINGH
Recognised Qualified Persons
No. 34011/(10)/2008-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
General Manager (Commercial)
NTPC LIMITED

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No.	Ref Para	Observations	Compliance to the Observations
		allocated to the project proponent is to be attached.	
37		On the basis of CMPDIL certificate, a certificate of RQP is to be attached certifying that the block boundary considered in the mining plan is exactly in line with the certificate issued by CMPDIL.	Certificate of RQP is attached at Annexure – XVI-C.
		Plates	
38		Pre-Mining Land use plan should be enclosed showing distinctly Private land, Govt Land & Forest land.	Pre-Mining Land use plan showing distinctly different types of land is shown as Plate No. 4.
39	Plate - 6	The plan indicates the lease boundary and block boundary. The Mine boundary in distinct colour should also be indicated in the plan.	Plate No 6 is now Plate No. 7 and has been modified indicating the Lease Boundary and Block boundary with distinct colours.
40	Plate - 8	The Area to be explored prior to dumping and also for proving of reserve and also the block boundary should be demarcated in distinct colour.	Geological Plan (Plate No 6) is now Plate No. 7 has been modified indicating the Area to be explored prior to dumping and also for proving of reserve with distinct colour.
41		Cadastral plan showing total lease Area and Mine Boundary	Cadastral plan (Plate No 3) showing total lease Area and Mine Boundary superimposed over mine boundary and marked with distinct colours is attached.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011(11)/2009-CPAM
Ministry of Coal, Govt. of India

Pointwise Compliance to MoC's observation issued vide letter no. 34011/05/2015/CPAM(Pt) dated 28th December 2015 on Revised Mining Plan & Mine Closure Plan – 1st Revision of Pakri Barwadih Coal Block

Sl. No	Ref Para	Observations	Compliance to the Observations
		superimposed over it, should be attached.	
42		Conceptual plan showing infrastructure facilities including colony, boundary of mining area, mine entries, roads including road diversion, nala diversion, river diversion alignment etc. should be attached.	Infrastructure facilities including colony, boundary of mining area, mine entries, roads including road diversion, nala diversion, river diversion alignment etc. have been shown in Surface Master Plan. The modified Surface Master Plan (Conceptual Plan) is attached.
43		A plan showing top soil management should be attached.	Location of Top soil dumps have been shown in respective stage plans. The detail has been explained in Chapter – V at para 5.4.9 and 5.5.10.2 regarding generation, spreading and its management.
44		Post Mining land use plan should be attached.	Post Mining land use plan has been attached as Plate No 32.
45	Plate – 36	It is apparent from the plan that the final void on the NW quarry will be left as water body, while in the mining chapter it is indicated that the lower seams will be taken by Underground method of mining. Development of water body is likely to sterilise the lower un-worked seam this needs to be reconciled.	All seams of PB-NW quarry shall be mined by open cast method and no underground mining has been envisaged.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2008-CPAM
Ministry of Coal, Govt. of India

LIST OF CONTENTS

LIST OF CONTENTS

SL. NO.	DESCRIPTION	PAGE NO.
	Summarised data	1 - 21
	CHAPTER I: INTRODUCTION	
1.1	Overview	I - 1
1.2	Background of NTPC Ltd.	I - 1
1.3	Installed Capacity of NTPC	I - 1
1.4	Coal Mining in Pakri Barwadih Block	I - 5
1.5	Revision of Mining Plan	I - 6
1.6	Present Revised Mining Plan	I - 8
1.7	Prospecting agencies	I - 11
1.8	Period for which mining lease acquired	I - 12
1.9	Coal Supply from Pakri Barwadih Coal Ming Project	I - 12
1.10	Despatch of Coal	I - 13
1.11	Name of applicant with complete address	I - 13
1.12	Board of Directors of Company	I - 13
1.13	Recognized Qualified Person (RQP)	I - 14
	CHAPTER II : EARLIER APPROVED MINING PLAN	
2.1	Earlier Approved Mining Plan	II - 1
2.2	Compliance of condition imposed if any with approval of the mining plan	II - 2
2.3	Status of Mining Plan submitted to MoC	II - 3
2.4	Revision of Mining Plan	II – 3
2.5	Present Mining Plan	II – 4
2.6	Reasons for Revision of Mining Plan	II – 4
2.7	Changes in Revised Mining Plan w.r.t Approved Mining Plan	II – 4
	CHAPTER III : LOCATION, TOPOGRAPHY AND COMMUNICATION	
3.1	General	III - 1
3.2	Location of the Block	III - 1
3.3	Communication	III - 2
3.4	North Karanpura Coalfields	III - 2
3.5	Block Area	III – 3
3.6	Climate and Rainfall	III - 3
3.7	Topography	III - 5
3.8	Drainage	III - 6
3.9	Population	III - 6
	CHAPTER IV : GEOLOGY	

SL. NO.	DESCRIPTION	PAGE NO.
4.1	General	IV - 1
4.2	Geological Report	IV - 1
4.3	Details of Exploration	IV - 2
4.4	Regional Geological set up of the area	IV - 6
4.5	Seam wise Quality Parameters of PB Block	IV - 23
4.6	Reserves Estimation	IV - 27
	CHAPTER V : MINING	
5.1	General	V - 1
5.2	Mine Design Strategy	V - 1
5.3	Mining	V - 6
5.4	Conceptual underground Mining	V - 52
	CHAPTER VI : MANPOWER, SAFETY AND SUPERVISION	
6.1	Introduction	VI - 1
6.2	Requirement of Manpower	VI - 3
6.3	Safety Aspects	VI - 5
6.4	Risk Assessment	VI - 13
6.5	Disaster Management	VI - 14
6.6	Recommendations	VI - 17
	CHAPTER VII : COAL HANDLING, WASHING & DISPATCH OF COAL	
7.1	Use of Mineral	VII - 1
7.2	Mineral Processing	VII - 1
7.3	Surface Transport of Coal	VII - 2
7.4	Coal Handling Plant for Western and Eastern Quarry	VII - 2
7.5	Coal Handling Plant for PB North- West(NW) Quarry	VII - 8
7.6	Dust Control System	VII – 13
7.7	Noise Control	VII – 14
7.8	Fire Fighting System	VII – 14
7.9	Plant Cleaning System	VII – 14
7.10	Plant Preventive Maintenance	VII – 14
7.11	Electricals	VII – 15
7.12	Coal Sampling	VII – 15
7.13	Civil and Structures	VII – 15
7.14	Mode of Despatch	VII – 15
7.15	Washing	VII – 16
7.16	Coal Quality Monitoring Laboratory	VII – 16
7.17	Drawings	VII – 16

SL. NO.	DESCRIPTION	PAGE NO.
	CHAPTER VIII :MINING INFRASTRUCTURE & FACILITIES	
8.1	Introduction	VIII - 1
8.2	Infrastructure Facilities proposed for PB West and PB East Quarry	VIII - 2
8.3	Infrastructure Facilities proposed for PB North –West Quarry	VIII – 11
8.4	Common Infrastructure and Facilities	VIII – 16
	CHAPTER IX : LAND REQUIREMENT	
9.1	Village wise Land	IX - 1
9.2	Category wise existing land use pattern	IX - 2
9.3	Land use during Mining	IX – 2
9.4	Post Mining Land Use pattern	IX – 3
9.5	Post Closure Land use pattern	IX – 4
	CHAPTER X : ENVIRONMENT MANAGEMENT PLAN	
10.1	General	X – 1
10.2	Environment Clearance	X – 1
10.4	Environmental impact assessment	X – 12
10.5	Environmental Management	X – 14
	CHAPTER XI : MINE CLOSURE PLAN	
11.0	Introduction on Mine Closure Plan	XI – 1
11.1	Reasons for Closure	XI – 1
11.2	Statutory Obligation	XI – 1
11.12	Ground Water Levels in Open Wells	XI – 27
11.6	Financial Assurance	XI – 66
11.7	Responsibilities of Owner	XI - 66
11.8	Provisions for Mine Closure	XI - 67

LIST OF TABLES

TABLE NO.	DESCRIPTION	PAGE NO.
1.1	Installed Capacity of NTPC	I – 2
1.2	Regional Spread of Generating Facilities	I – 2
1.3	Location of End Use Plants	I – 3
1.4	Coal based joint ventures	I – 3
1.5	Projects under Implementation(Coal Based Thermal)	I – 4
1.6	Geological/Mineable Reserve of Pakri Barwadih	I – 6
1.7	Coal requirement and meeting coal requirement	I – 12
1.8	Name of Applicant with complete address	I – 13
1.9	Board of Directors of the Company	I – 13
1.10	Recognised Qualified Person	I – 14
2.1	Salient Features of Approved Mining Plan	II - 1
3.1	Breakup of Mine Area	III - 3
3.2	Rainfall records at IMD Hazaribag	III - 4
4.1	Phase wise Agency wise Exploration Status	IV - 3
4.2	Seam wise Borehole Intersections and Density	IV - 3
4.3	Production support boreholes	IV - 5
4.4	Geological Succession of North Karanpura Coal Field	IV - 6
4.5	Stratigraphic Sequence of Pakri Barwadih Block	IV – 8
4.6	Stratigraphic Sequence of Pakri Barwadih North-West (Sector- A)Block	IV – 10
4.7	Fault Details of Pakri Barwadih West & East Block	IV - 11
4.8	Description of Faults interpreted in PB NW (Sector- A)	IV - 14
4.9	Sequence and Details of Coal Seams	IV - 17
4.10	Thickness of Coal Seams and Parting in PB(West East)	IV – 20
4.11	Thickness of Coal Seams and Partings in PB(North West)	IV - 21
4.12	Range of Quality Details of Coal Seam of PB West & East Block	IV - 24
4.13	Seam Wise Grade wise Geological Reserve	IV - 28
4.15	Summary of Coal Reserve in Million Tonnes	IV - 40
4.16	Sector Wise, Depth Wise Reserve, Over Burden and Stripping Ratio	IV - 44
4.17	Description of Sectors	IV - 48
4.18	Category wise Geological Reserve of PB North West Quarry	IV - 48
4.19	Seam Wise and Grade Wise Geological Reserve	IV - 49
4.20	Seam Wise and Depth Wise Opencast Reserve	IV - 50
4.21	Seam Wise and Depth Wise Under Ground Reserve PB(NW)	IV - 51
4.22	Total reserve in Pakri Barwadih Block	IV - 51
5.1	Area of the Block	V - 1

TABLE NO.	DESCRIPTION	PAGE NO.
5.2 A	Mining and Geological Characteristics of PB West & East Quarriable Block	V – 7
5.2 B	Mining and Geological Characteristics of PB NW Quarriable Block	V - 8
5.3	Boundaries upto 300 m depth line	V – 9
5.4	Extractable Reserve	V - 15
5.5	Mineable Coal Reserve, Volume of OBR, Stripping Ratio	V – 16
5.6	Net reserves and extractable reserves and losses	V - 17
5.7	System Parameters	V - 20
5.8	Pattern of Drilling in Over Burden	V – 22
5.9	Pattern for Drilling in Coal	V - 23
5.10	Yearwise proposed OB Removal from PB(Mm^3)	V - 27
5.11	Phased Overburden dumping/ waste disposal and capacity of Dumps	V - 30
5.12	Percentage Overburden dumping	V - 32
5.13	Management of Top Soil	V - 34
5.14	Summarised Data of Top Soil Management	V - 36
5.15	Pit-Wise production programme	V - 37
5.16	Calendar Programme of Pakri Barwadih	V - 38
5.17	Norms of Equipment Availability and Utilization	V - 41
5.18	Productivity of Excavators	V - 41
5.19	Productivity of Dumpers for lead	V - 42
5.20	Proposed List of HEMM for PB West and PB East	V - 44
5.21	Proposed List of HEMM for PB East for initial Two years	V - 46
5.22	Annual Capacity and Life of Quarry	V - 46
5.23	Schedule of commencement of PB(Underground)	V - 52
5.24	Projected Production Plan	V - 53
6.2	Statutory persons	VI – 3
6.3	Manpower Requirement for Pakri Barwadih Project	VI – 3
6.4	Manpower Requirement for Pakri Barwadih East Project	VI - 5
6.5	Applicability of GoI Rules to Hazardous Materials Storage	VI - 16
9.1	Village Wise Land in the Core Zone	IX - 1
9.2	Pre Mining Land Use Pattern	IX - 2
9.3	Land use pattern during Mining	IX - 2
9.4	Post Mining land use pattern	IX - 3
9.5	Post Closure Land use pattern	IX – 5
10.1	List of Soil Sampling Locations	X - 3

TABLE NO.	DESCRIPTION	PAGE NO.
10.2	Physical Properties of Soil in June, 2005	X - 4
10.3	Physical Properties of Soil in November,2005	X - 4
10.4	Chemical Properties of Soil during June,2005	X - 5
10.5	Chemical Properties of Soil during November,2005	X - 5
10.6	Available NPK Contents in Soil in June, 2005	X - 6
10.7	Available NPK Contents in soil in November, 2005	X - 6
10.8	Exchangeable Soil Cations in June,2005	X - 7
10.9	Exchangeable Soil Cations in November,2005	X - 8
10.10	Available Micronutrients in soil in June, 2005	X - 8
10.11	Available Micronutrients in soil in November, 2005	X - 8
10.12	Ambient Noise Monitoring Stations	X - 10
10.13	Summarised Result of Noise Monitoring during June 2005	X - 11
10.14	Ambient air quality in respect of Noise	X - 11
10.15	Yearly Details of reclamation of land	X - 14
10.16	Afforestation Programme	X – 15
10.17	Yearly stabilization and vegetation of dump	X – 16
10.18	Monitoring Schedule	X - 20
10.19	Salient features of PB North west Quarry(Sector-A)	X – 22
10.20	Post Mining Land Use Pattern	X- 23
10.21	Plantation programme for First Five Year	X - 28
10.22	Proposed Plantation programme for Mine Life	X - 29
11.1	List of Clearances for PB East PB West and PB North West Quarry	XI - 2
11.1 A	Mine Parameters of West and East Quarry of PB Coal Block	XI - 4
11.1 B	Mine Parameters of North West Quarry of PB Coal Block	XI – 4
11.1 C	Net Reserves and extractable reserves and losses	XI - 10
11.2	Post Mining Land use Pattern	XI - 15
11.3	Result of Surface Water Analysis	XI – 17
11.3 a	Results of Ground Water analysis	XI – 19
11.3 b	Results of Ground Water analysis	XI – 21
11.3 c	Results of Ground Water analysis	XI – 23
11.15	Details of Nallah	XI – 35
11.16	Details of Eastern Arm of Diversion Canal	XI – 37
11.20	List of Facilities to be dismantled or retained at the end of life of PB Coal Block	XI – 49
11.21	Manpower requirement for Closure Activities	XI – 52
11.22	Estimated fund requirement for closure activities	XI – 57

Jaswant Singh
Director (Technical)
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10

EOC, A-6A, Sector-24, Noida-201301 (U.P.)

TABLE NO.	DESCRIPTION	PAGE NO.
11.23	Methodology of calculation of annual closure cost(opencast)	XI – 62
11.24	Methodology of calculation of annual closure cost(underground)	XI – 63
11.25	Year wise closure cost for PB Mine	XI – 64

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

LIST OF FIGURES

FIGURE NO.	DESCRIPTION	PAGE NO.
1.1	NTPC Installed capacity and Generation	I - 5
11.1	Water Balance Chart for PB West and East Quarry	XI - 31
11.2	Water Balance Chart for PB NW Quarry	XI - 33

LIST OF PLATES (PART I OF II)

SL. NO.	NAME OF DRAWING	SCALE	PLATE NO.	DRAWING NO.
1.	Location plan	NTS	1	7010-199-POM-J-001
2.	Key plan	NTS	2	7010-199-POM-J-002
3.	Cadastral plan showing total lease Area & Mine Boundary	1:20000	3	7010-199-POM-J-003
4.	Pre Mining Landuse plan	1:20000	4	7010-199-POM-J-004
5.	Surface Master plan (Conceptual Plan)	1:20000	5	7010-199-POM-J-005
6.	Topographical plan	1:20000	6	7010-199-POM-J-006
7.	Geological Map	1:20000	7	7010-199-POM-J-007
8.	Scheme showing Detail Exploration in Dip side Area	1:20000	7A	7010-199-POM-J-07A
9.	Geological cross sections along A-A' to D - D'	1:10000	8	7010-199-POM-J-008
10.	Geological cross sections along E-E' to H-H'	1:10000	9	7010-199-POM-J-009
11.	Geological cross sections along I-I' to M-M'	1:5000	10	7010-199-POM-J-0010
12.	Graphic Litholog BH No. CNPB – 1-12, 15,18, 21,23,47,CMKPB 01,12,13,14,16,30,33	NTS	11	7010-199-POM-J-011
13.	Seam extent plan – V	1:20000	12	7010-199-POM-J-012
14.	Seam extent plan – IV	1:20000	13	7010-199-POM-J-013
15.	Seam extent plan – III	1:20000	14	7010-199-POM-J-014
16.	Seam extent plan – II	1:20000	15	7010-199-POM-J-015
17.	Seam extent plan – I	1:20000	16	7010-199-POM-J-016
18.	Seam extent plan – K - 5	1:20000	17	7010-199-POM-J-017
19.	Seam extent plan – K - 4	1:20000	18	7010-199-POM-J-018
20.	Seam extent plan – K - 3	1:20000	19	7010-199-POM-J-019
21.	Seam extent plan – K - 2	1:20000	20	7010-199-POM-J-020
22.	Seam extent plan – K - 1	1:20000	21	7010-199-POM-J-021
23.	Final Stage Quarry Plan	1:20000	22	7010-199-POM-J-022
24.	Mining system	1:5000	23	7010-199-POM-J-023

SANJAY KUMAR SINGH
Assistant Director (Mining)
I/c. SO(HQ)/CGO-CFAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Dy. General Manager (Geology)
EOC, A&A, Sector-24, Noida-201301 (U.P.)

LIST OF PLATES (PART II OF II)

25.	Stage Plan at the end of 1st year	1:20000	24	7010-199-POM-J-024
26.	Stage plan at the end of 3rd Year	1:20000	25	7010-199-POM-J-025
27.	Stage plan at the end of 5th Year	1:20000	26	7010-199-POM-J-026
28.	Stage plan at the end of 10th Year	1:20000	27	7010-199-POM-J-027
29.	Stage plan at the end of 20th Year	1:20000	28	7010-199-POM-J-028
30.	Stage plan at the end of 30th Year	1:20000	29	7010-199-POM-J-029
31.	Stage plan at the end of 40th Year	1:20000	30	7010-199-POM-J-030
32.	Final stage dump plan	1:20000	31	7010-199-POM-J-031
33.	Post Mining Landuse Plan	1:20000	32	7010-199-POM-J-032
34.	Reclamation Plan after 1st year	1:20000	33	7010-199-POM-J-033
35.	Reclamation Plan after 3rd year	1:20000	34	7010-199-POM-J-034
36.	Reclamation Plan after 5th year	1:20000	35	7010-199-POM-J-035
37.	Reclamation Plan after 10th year	1:20000	36	7010-199-POM-J-036
38.	Reclamation Plan after 20th year	1:20000	37	7010-199-POM-J-037
39.	Reclamation Plan after 30th year	1:20000	38	7010-199-POM-J-038
40.	Reclamation Plan after 40th year	1:20000	39	7010-199-POM-J-039
41.	Final Stage Reclamation Plan	1:20000	40	7010-199-POM-J-040
42.	Reclamation Cross Section	1:10000	41	7010-199-POM-J-041
43.	Lay out of CHP & Tentative Coal Flow	NTS	42	7010-199-POM-J-042
44.	Single Line Diagram	NTS	43	7010-199-POM-J-043

SANJIV KUMAR SINGH
Scientist, Gradient Person
Ltr. No.-11(1)-2009-CPAM
Ministry of Coal, Govt. of India

Deputy General Manager (Mining)
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

LIST OF ANNEXURES

SL. NO.	PARTICULAR	ANNEXURE
1.	Copy of block allotment letter & MoC Letter dated 24th August 2005	Annexure – I & Annexure-II
2.	Copy of Approved Mining Plan & MoC's letter approval of Mining Plan	Annexure –III & Annexure-IIIA
3.	Copy of letter for submission of Mining Plan for PB North-West (Sector-A)	Annexure –IV
4.	Copy of letter for submission of Mining Plan for PB East	Annexure - V
5.	Copy of MoC's letter for submission of Revised Mining Plan and Mine Closure Plan	Annexure - VI
6.	Copy of letter of submission of Revised Mining Plan (1st Revision) to MoC	Annexure - VII
7.	Copy of letter for commencement of Mining from PB East	Annexure - VIII
8.	Copy of MoC's letter for submission of Revised Mining Plan incorporating the changes in sequence of mining operation	Annexure -IX
9.	Copy of MoC's letter granting recognition to RQP for preparation of Mining Plan.	Annexure -X
10.	Copy of letter from CMPDIL& MECL for procurement of GR	Annexure –XI& Annexure-XIA
11.	No dues certificate from CMPDIL regarding Exploration cost	Annexure –XII
12.	Copy of approval letter of Mine Closure Plan & Approved Mine Closure Plan(Jan' 2012)	Annexure –XIII & Annexure - XIIIA
13.	Notification under Section 7 (1) of CBA (A&D) Act	Annexure - XIV
14.	Co-ordinates boreholes of Pakri Barwadih	Annexure - XV
15.	Letter of authorization by the Block Allottee to the RQP	Annexure – XVI
16.	Certificates by the RQP regarding observance of guidelines of Mining Plan	Annexure – XVI A

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जमात/PAWAN DEV JAMTA
उप महाप्रबंधक (सी.पी.एम.)
Dep. Chief General Manager (Coal Planning)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

17.	Certificates by the RQP regarding coverage of block area.	Annexure – XVI B
18.	Certificates by the RQP regarding block boundary as per MoC letter	Annexure – XVI C
19.	Certificates by the RQP regarding observance Mine Act 1952 &other applicable laws	Annexure – XVI D
20.	Certificates by the RQP regarding quarrying up to bottom most seam	Annexure – XVI E
21.	Certificate by the RQP regarding authorisation	Annexure – XVI F
22.	Certificate from the applicant	Annexure - XVII
23.	Letter of RED(Coal Mining) to MoC along with the Board Resolution	Annexure - XVIII
24.	Plan of block boundary issued by CMPDI	Annexure - XIX
25.	WPI value for "All Commodities" as downloaded from website of "Office of Economic Advisor"	Annexure-XX

SANJIV KUMAR SINGH
Assistant Director Grade-I
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Dy. General Manager (Commercial)
NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

LIST OF ABBREVIATIONS

Sl. No.	Abbreviation	Full Form
1.	AMSL	Above Mean Sea Level
2.	bgl	Below ground level
3.	BH	Bore hole
4.	CBA	Coal Bearing Area
5.	CMPDIL	Central Mine Planning Design Institute Limited
6.	CSM	Continuous Surface Miner
7.	Cum/Mil. cum.	Cubic meter/ Million cubic metre
8.	DGMS	Director General Mines Safety
9.	E&M	Electrical and Mechanical
10.	EIA	Environmental Impact Assessment
11.	EMP	Environmental Management Plan
12.	FC	Fixed Carbon
13.	FE Loader	Front End Loader
14.	GCV	Gross calorific value
15.	GoI	Government of India
16.	GR	Geological Report
17.	GSI	Geological Survey of India
18.	HEMM	Heavy Earth Moving Machinery
19.	HFL	High Flood Level
20.	IB	Inter burden
21.	I.E.	Indian Electricity
22.	IMD	India Meteorological Department
23.	K. Cal/kg	Kilo Calorie per Kilogram
24.	KL/kl	Kilo Litre
25.	Ut	Litre
26.	m/Km	Metre/Kilometre
27.	m^3/Mm^3	Cubic metre/Million cubic metre
28.	MBCM	Million Bank Cubic Metre
29.	MCP	Mine Closure Plan
30.	MECL	Mineral Exploration Corporation Limited
31.	ML	Mining Lease
32.	mld	Million litre per day
33.	MoC	Ministry of Coal
34.	MoEF	Ministry of Environment and Forests
35.	Mt	Million Tonne
36.	Mtpa	Million Tonne Per Annum
37.	OB	Overburden
38.	OC	Opencast
39.	PA	Per Annum
40.	PB	Pakri Barwadih
41.	RH	Relative Humidity
42.	RPM	Respirable Particulate Matter
43.	RQP	Recognised Qualified Person
44.	RoM	Run of Mine
45.	SC	Scheduled Caste

RQP No. 3401.1/(15)/2009-CPAM dated 27.09.10

46.	SH	State Highway
47.	SPM	Suspended Particulate Matter
48.	ST	Scheduled Tribe
49.	T/t	Tonne
50.	TPD	Tonne Per Day
51.	TS	Topsoil
52.	UHV	Useful Heat Value
53.	UG	Underground
54.	VM	Volatile Matter

SUMMARISED DATA



पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
सेक्टर-24, Noida-201301 (U.P.)

Summarized Data

1. General

a) Name and address of the Applicant Company	NTPC Ltd. (Govt. of India Enterprises) NTPC Bhavan,Core-7, Scope Complex, 7 Institutional Area, Lodhi Road New Delhi-110003 Tel No. 011-24387333/24387000 Fax No.011-24361018
b) Name and address of block Allottee	As above
c) Relationship between Applicant and Allottee company	Both Applicant and allottee company are one and the same.
d) Status of the Applicant Company	Public Sector Undertaking(PSU)
e) Name of the Coal Block together with name of Coalfield & State where located	Block : Pakri Barwadih Coal Block Coalfield : North Karanpura Coalfield State : Jharkhand
f) Date of allotment	Date: 11.10.2004 Letter No.: 13016/29/2003-CA-I
g) End Use of Coal as per Approval	For generation of Power. A basket Linkage exists for this Block.
h) ROM quantity proposed to be produced as per Mining Plan	ROM Quantity: 503.38 Mt from West and East Quarry 138.96 Mt from NW Quarry Total = 642.34 Mt
i) Norms adopted for calculating ROM quantity requirement in case it differs from the quantity indicated in the Allotment Order	N.A (Basket Linkage)
j) Beneficiation required: Yes/No	No
k) Requirement of Beneficiated Coal & expected availability thereof	Not Applicable
l) Period for which Mining Lease has been granted for	Since land for mining area is being acquired by NTPC under CBA Act. Mining Lease Not Applicable
m) Date of expiry of earlier Mining Lease, if any	Since land for mining area is being acquired by NTPC under CBA Act. Mining Lease Not Applicable
n) RQP who has prepared the Mining Plan Name: Address: Phone Nos :	**Mr. Sanjiv Kumar Singh** 4th Floor, Core-5, NTPC Ltd, Scope Complex,7 Institutional Area, Lodhi Road, New Delhi-110003 (+91) 011- 24387869 (O), 0120-2400372 (R)

पवन देव जांगड़ा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्य)
Deputy General Manager (Commercial)
एन.टी.पी.सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Mobile: Fax: Email ID: Registration No of RQP: Date of grant of RQP status: Renewal of RQP Status: Validity:	(+91) 9650991396 (+91) 011-24367089, sanjivkumarsingh01@ntpc.co.in 34011/(15)/2009-CPAM 27.09.2010 10 years from the date of issue

2. Information regarding earlier approved Mining Plan

a) Approval Letter no. and Date	13016/29/2003-CA-I, Dated 25th August 2006 (Refer Annexure-II)
b) Lease Area	4626 ha (Project Area)
c) Date of grant of Lease	Since land for mining area is being acquired by NTPC under CBA Act. Mining Lease Not Applicable
d) Date of expiry of Lease	Since land for mining area is being acquired by NTPC under CBA Act. Mining Lease Not Applicable
e) Targeted Production	15Mtpa
f) Proposed year of start of Production	-
g) Proposed year of achieving the targeted production level	12th year of Mine Operation
h) Envisaged life of mine (in years)	41 Years (Including two years of construction period)
i) Date of actual commencement of Mining Operation, if operation is already started	Production not yet started
j) Likely date of Mining Operations, if operations not yet started & reasons for non-commencement of operations	Likely date of Mining Operation-
k) Planned production and actual levels achieved in last 3 years	N/A
l) Coal:- OB:-	Open cast: N/A OB: N/A
m) Reasons for difference between planned and actual production levels	Reasons for delay in starting of the project are as under: a) Delay in issuance of NoC on jungle jhari land by Distt Admininstration due to which Forest Clearance was delayed. b) Revision of evacuation corridor on advice of FAC, MoEF c) Delay in land acquisition: There was delay in physical verification & Certification of land records; disbursement of land compensation by Hazaribagh Distt. Administration took more time due to old /

SANJIV KUMAR SINGH
Recognised Qualified Person
Regn. 34011(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जमुआर/PAWAN DEV JAMUAR
उप महाप्रबंधक (परियोजना)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

	non availability of land records, inadequate State manpower at Distt/Block level, law & order problem etc. d) Non-performance by the earlier MDO. NTPC finally terminated the MDO contract wef 22.06.2014.
n) Reason for revision of Mining Plan	MoC directed to submit Revised Mining Plan (1st Revision) including Mine Closure Plan as a whole instead of in parts, vide letter F.No.13016/29/2003-CA-1 (Part) dated 24.06.2015.
o) Details of changes in new Mining Plan compared to earlier approval	1. Comparison between Approved and Revised plan:

	Approved Plan	Revised Plan
Lease Area	4626 Ha	4695 Ha
Block boundary	same	
Production level	15Mtpa from 12th Year	18Mtpa from 12th Year
Reserves	West Quarry 311.71Mt East Quarry 191.68 Mt	West Quarry 311.71 Mt East Quarry 191.68 Mt NW Quarry (Sector-A) 105.80 Mt
Mining Technology	Shovel Dumper combination with inclined slicing for coal and intervening parting and horizontal slicing method for top OB benches	Shovel Dumper combination with inclined slicing for coal and intervening parting and horizontal slicing method for top OB benches
Land use pattern	Forest 1105.92 Ha	Forest 1787.08Ha Non-forest

पवन देव जमुटा/PAWAN DEV JAMTA
Deputy General Manager (Commercial)
उप महा प्रबंधक/NTPC LIMITED
EDC A-8A, Sector-24, Noida-201301 (U.P.)

		Non-forest: 3519.92 Ha	2908.00 Ha
	Coal Stockpile	Not provided	Stockpile which can cater to one week production of the West, East and NW Quarry is envisaged.

p. Reasons for change in Lease Area is given below:

	Approved Mining Plan	Revised Mining Plan	+/- (ha)	Reason
Block Area excluding Area 'A'	3943	3943		No Change
Area 'A'	384	485	101	Detailed survey of Area 'A' at the time of detailed exploration has indicated total area as 485 ha. Same has been notified under Section 7(i) of CBA.
Outside Block area (For OB Dumps and infrastructure)	299	267	-32	Decrease in area as per direction of restrictions of MoEF.
Total	**4626**	**4695**	**69**	

- The difference of 69 ha between the lease areas shown in the Approved Mining Plan and present Revised Mining Plan (Rev-1) is attributed to increase of 101 ha in Area 'A' after demarcation & measurement, and reduction by 32 ha of the area taken for external dumping and infrastructure.
- The revised area of PB-NW (Sector 'A') has been certified by CMPDI (enclosed as Annexure –XIX).

q. Reasons for change in Forest Area and Non-forest Area:

i) Updation/Correction of forest records and land re-classification by State Govt./forest department.
ii) Increase in the area of sector -A (North-western part of Pakri Barwadih) which consists majority of forest land.

Details of forest/non forest along with variation with respect to Approved Mining Plan area as follows:

SANJIV KUMAR SINGH
Recognised Qualified Person
Ministry of Coal, Govt. of India
PAWAN DEV JAMTA
NTPC LIMITED
E-IC, A-8A, Sector-24, Noida-201301 (U.P.)

	Approved Mining Plan	Revised Mining Plan	Increase (ha)	Decrease (ha)
Forest Land	1126	1787	661	
Agricultural & Residential Land	2675	2520		155
Govt. Non-forest Land	825	388		437
Total	4626	4695	661	592

3. Location

a) Location of the block Taluka/Village/Khasra/Plot/Block Range etc.	North-Eastern part of North Karanpura CF, bounded by longitudes 85°9'19" to 85°15' 0"E and latitude 23°51'30" to 23°55'40" Taluka- Barkagaon etc. Village- Pakri Barwadih, Nagari, Arhara, Chepakalan, Jugra etc.
b) Name of the Coalfield	North Karanpura Coalfield
c) Particulars of adjacent blocks: North, South, East, West	North- Protected Forest South- Badmahi River & Barkagaon R.F. East- BarkagaonR.F. West- Kerendari 'C' Block
d) Area of the Allotted Block (hectares)	i) Geological Block Area:4428.92 ha ii) Mining Block Area :4428.92 ha
e) Reference no. of Plan of block boundary issued by CMPDI	Drawing. No: RI/III/6/5827 plate No. II March 2004 Refer Annexure - XII.
f) Whether the lease boundary is same as demarcated by CMPDI	Yes: The block boundary considered for mining is the same as provided by the CMPDI. However additional land has been envisaged and acquired for external dump and infrastructure such as Cross Country Conveyor, Railway Siding etc. outside the block boundary.
g) Existing mining Lease Area in case of existing mines	Not Applicable
h) Applied/required Lease Area as per the Mining Plan under consideration (hectares)	Lease is not applicable however required area is given below: Total Area =4695 Ha Block Area = 4428.92 Ha Outside Block Area = 266.08 Ha
i) Whether the applied lease area falls within the allotted block	The area includes total allotted block area demarcated by CMPDI and an additional area of 266.08 Ha.
j) Area (hectares) which falls outside the block/sub-block delineated by CMPDI	266.08 Ha.
k) Details of outside area:	

Deputy General Manager (Commercial)
EOC, A-8A, Sector-24,

- whether forms part of any other coal block - whether it contains any coal reserves	No No, as the detailed review of Geological Plan (vide drawing No. R-III/G/6206) of GR prepared by CMPDI reveals that the incrop of lower most seam of Barakar Formation Seam-IB is within the block boundary and no mineable coal, by opencast method, extend beyond that incrop line. Hence the area marked for dumping and infrastructure near the North-eastern side of the block is considered to be non-coal bearing area.
-Purpose for which it is required	OB Dumps and Mine Infrastructure: 193.85 Ha Evacuation corridor & siding: 72.23 Ha
l) Whether some part(s) of the allotted block has not been applied for mining lease -Total area in hectares of such part(s) -Total reserves in such part(s) -Brief reasoning for leaving such part(s)	No Not Applicable Not Applicable Not Applicable

m) Type of land involved in Hectares

Lease Area

Sl. No	Class of land		Area in ha
1.	Forest		1787
2.	Non-Forest	Govt.	388
		Tenancy	2520
Total			**4695**

n) Broad Land use Pattern

Pre Mining Land Use

Sl. No.	Type		PB West &East	PB WW	Total of PB
1	Tenancy	Agricultural	2731.48	176.52	2908.00
		Habitation			
		Grazing			
		Barren			
2	Govt. Non Forest	Agricultural			
		Habitation			
		Grazing			
		Barren			
3	Forest	Forest	1479.52	308.48	1787.00
	Total		4210.00	485.00	4695.00

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

	Land use Post Closure Sl. No. | Type | PB West &East | PB NW | Total of PB 1 | Water body | 456.00 | 44.00 | 503.00 2 | Plantation | 2844.00 | 286.00 | 3130.00 3 | Road | 2.00 | 8.00 | 10.00 4 | Grazing | 223.00 | 24.00 | 247.00 5 | Agricultural | 524 | 76 | 600.00 6 | Public Use | 105 | 47 | 152.00 7 | Barren | 35 | 0 | 35.00 8 | For UG Mine | 18.00 | 0.00 | 18.00 | Total | 4210.00 | 485.00 | 4695.00
o) Proximity of public road/ railway line/ major water body if any and approximate distance	The entire block falls in the Hazaribagh district of Jharkhand State. The Hazaribagh – Khalari – Ranchi State highway passes through the eastern part of the block touching Barkagaon and Tandwa Villages. The nearest township is Hazaribagh located at a distance of around 25 kms from Barkagaon in the northern part of the block. The nearest rail stations are Ranchi Road of SE Railway around 70- 75 kms from the block. There are a number of seasonal streams/ nullah traversing the block and the prominent ones are Dumuhan, Hardara and Khora etc. flowing roughly north to south and carry huge load during rainy seasons. None of them are perennial in nature. They discharge their load into the Badmahi River flowing further south of the block which one of the important tributaries of the mighty Damodar River is flowing west to east in southern part of the North Karanpura Coalfield.
p) Toposheet No. with Latitude and Longitude	The block is covered by the Survey of India Toposheet No. 73 E/1 (RF 1:50,000) and special sheet no. 21, 23 & 24 on R.F. 1:10000. It is bounded by longitude 85°09'19" to 85°15'00"E and latitude 23°51'30" to 23°55'40"N.

4. Geology and Exploration

a) Name of the Geological Block	Pakri-Barwadih Coal Block located in the north eastern part of North Karanpura coal field bounded by longitudes 85° 09' 18" to

SANJIV KUMAR SINGH
Recognised Qualified Person
Ministry of Coal, Govt. of India

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC A-8A, Sector-24, Noida-201301 (U.P.)

and area in hectare	85°15'00" N and latitude 23° 51' 30" to 23° 55' 40" E covered by the Survey of India Toposheet no. 73E/1 (R.F 1: 50000) and special sheets no. 21, 23 & 24 on R.F. 1:10000 is located in the state of Jharkhand and is around 120-130 km from the state capital Ranchi.
b) Name of the Geological Report (GR) with year of preparation	Two Geological Reports are available namely: a. Geological Report on Coal Exploration Pakri-Barwadih Block (Non-CIL captive block) North Karanpura Coal Field, Dist. Hazaribagh, Jharkhand; prepared in March 2005. b. Geological Report on Detailed Exploration for Coal Pakri Barwadih North West (Area - A Block), North Karanpura Coal Field, Dist. Hazaribagh, Jharkhand (State) October 2012.
c) Name of the agency which conducted the exploration and prepared GR.	Two agencies were involved namely: a. CMPDI for total PB Block except Area "A", North West part of Pakri Barwadih b. MECL for Area "A", North West part of Pakri Barwadih
d) Period of conducting exploration	Exploration by CMPDI was conducted in two phases: 1st Phase- 1999-01 2nd Phase- 2003-04 Exploration by MECL was conducted for PB "A" area: 2006-2012
e) Details of drilling by all agencies (Coring and Non-coring)	

Agency/ Type	Period of Drilling	Drilling	
		No. of Boreholes	Meterage
1. GSI / Regional	1961 to 1971	KB-1 to 26 (26 BHs)	8177.23
2. CMPDI a) Promotional (Semi-regional)	Dec. '1999 to April, 2001	CMKPB-1 to 38 (38 BHs)	10482.00

SANJIV KUMAR SINGH
Recognised Director
No. 34011/(1)/[illegible]
Ministry of Coal, Govt. of India

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

	b) Non-CIL (detail drilling)	Jan., 2003 to June 2004	CNPB- 1 to 135 (135 BHS)	24943.60
	Sub -Total		**199**	**43602.83**
	3. MECL for PB A	2006 to 2012	MNPB-1 to MNPB-1 (33 BHs)	4282.70
	Total (1, 2 & 3)		**232**	**47885.53**
f) No. of Boreholes drilled within the block	196 BHs in PB 33 BHs in Area A (MECL) 03 BHs in Area A(CMPDIL) Total 232 BHs			
g) Overall density within the block (no. /sq. km)	10 BHs/ sq. Km in Proved Reserve Area and 1 BHs/sq. km in Indicated Reserve area			
h) Area covered by detailed exploration within the block (hectares)				

Sl. No.	Area/Type	Area in Ha.
1	PB West and East (Explored)	1774.6
2	PB NW (Explored)	485.00
3	Regionally explored	2169.32
4	Outside Block Boundary	266.08
	Total Area	**4695.00**

i) Area covered by detailed exploration outside the block (hectares) i) No. of boreholes drilled outside the block ii) Borehole density for outside area (no./sq. Km)	N/A 5 Boreholes in the area PB- A NA
j) Whether entire lease area is covered by detailed	No

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

exploration	

k) Further Exploration with timeframe (Tentative)

A. Exploratory drilling for no coal zone proving

The infrastructure facilities and external waste dumping areas (Dump-A and B) as shown in Plate No. 4 have been selected beyond the incrop of Seam-I Bottom as indicated in the GR. CMPDIL drilled eight boreholes in this area. Karharbari seams are encountered in 7 boreholes , however these seams are erratic and impersistent in nature and lacks opencast potentiality. No attempts were made to estimate the reserves however, If required negative probing boreholes will be drilled before starting of OB Dumping.

Period	No. of Bhs.	Location	Target
Pre-construction	30 (approx.)	Infrastructure sites and external waste dumps A & B	Negative proving of workable coal seams.

B. Exploratory drilling for production support

In order to delineate the incrop of Seam-I & II and support the production requirement as per stage plan, phase-wise exploration through core drilling in different sectors of the block have been proposed below:

Period	No. of BH	Location	Estimated metirage
Development	15	Bet. F14& Seam-IBottom incrop Bet F13 & F14 Bet F8 & F9	750
Production 1st year	15	Bet F12 & F13 Bet F10 & F11 Bet F7 & F8	1500
Production 2nd year	15	Bet F12 & F13 BetF11 & F 12 Bet F9 & F10	1500
Production 3rd Year	12	Bet F8 & F10 Bet F7 & F6	1500

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Production 4th year	12	Bet F5 & F6 Bet F7 & F8	2200

C. **Exploration for area beyond 300m depth line**

The southern portion of the Pakri-Barwadih Block covering around 12 sq. km. area has also not been explored in details and only " indicated" category reserves of the order of 733.2 Mt are provisionally assessed by CMPDI. Therefore a detailed exploration programme has been proposed to convert the indicated reserve into proved category and to develop underground mine plan. This is detailed below:

i. Detailed exploration is to be carried out in this area, involving drilling of 55000-60000 m, as estimated by CMPDI.
ii. As per approved Mining Plan, 45000 m of drilling over 4 years in 12 sq. km area was indicated.
iii. Exploration in this area to be taken up in the 1st production year and completed in 4th Years.

I) i) No. of Coal horizons	Barakar : 5 persistent coaly horizons Karharbari: 5 thin coaly horizons Local : 1 coaly horizon
ii) thickness range of coal seam	The five Barakar coal seams are splitted into several sections
iii) mean thickness of total coal horizon	Maximum thickness of individual seam–28.67 m, Seam II Comb (CNPB 32). Minimum thickness of individual seam- 0.05 m, Seam K – 2 (CNPB 124).
iii) Standard Deviation of the thickness	SD of individual coal seam thicknesses ranges from 0.35 - 10.2. Mean of thicknesses of total coal seams is >35 m
Minimum and Maximum depth of intersection of roof of the coal seam	Maximum : 304.30m (Seam K - 3) Minimum : 11.50 m (Seam II Top)

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (कॉर्पोरेट)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EGC, A-8A, Sector-24, Noida-201301 (U.P.)

m) Gross Calorific Value (GCV in K Cal/ Kg) of Coal as per GR and Useful Heat Value (UHV in K. cal/ Kg), of coal as per GR: Range Mean	GCV: Ranges from 2491 **(G-16)** to 6280 **(G-4)** Mean: 4385.5 **(G-10)** UHV: Ranges from 1368 to 5657 Mean: 3512.5
n) Quality (Grade) of coal as per GR	The range of Grade varies from B to G. The proved reserve fall mostly in D-F grade. (As per GR prepared by CMPDI).As per the average GCV, the grade of **West & East Quarry- G-10** **North West Quarry- G-8.**
o) Total Geological Reserves in the block (as per GR)	**Geological/Mineable Reserves of Pakri Barwadih** ***million tonnes***

Sl. No.	Reserves*	PB-West & East	PB-NW	Total
1	Net Geological	1436	137.6	1573.6
2	Amenable for Open Cast	707	121.03	828.03
3	Amenable for Underground	729	0	729
4	Mineable	503.39	138.98 **	642.34

** Reserves up to 300m depth have been considered for opencast mining.*
***33.18 Mt of coal shall be mined as Barrier& Batter Coal between PBW & PB-NW.*

Net reserves and extractable reserves and losses

(in Mt.)

Seam	Net Reserve	Barrier Loss	Batter Loss	Mineable Reserves	Mining Loss	Extractable Reserve	% Extraction
V Top	22.29	0.72	1.57	19.99	0.59	19.40	87.66
V Bottom	15.56	0.51	1.10	13.96	0.41	13.55	87.06
V Combined	11.37	0.21	0.49	10.87	0.44	10.43	96.16
Seam - V	49.42	1.44	3.16	44.82	1.44	43.38	87.78
IV Top	19.82	0.64	2.23	16.95	0.50	16.45	83.01

SANJAY KUMAR SINGH
Scientific Officer (Mining)
Gr. 'A' MINE PLANNING-CPAM
Ministry of Coal, Govt. of India

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

	IV Bottom	9.92	0.32	1.12	8.48	0.25	8.23	83.01
	IV Combined	92.32	3.13	10.68	78.49	2.43	76.06	82.29
	Seam - IV	**122.06**	**4.10**	**14.83**	**103.93**	**3.18**	**100.75**	**82.54**
	III Top	27.45	1.21	2.04	24.20	0.70	23.49	85.59
	III Bottom	9.83	0.43	0.73	8.66	0.25	8.41	85.59
	III Combined	4.80	0.21	0.36	4.23	0.12	4.11	85.59
	Seam - III	**42.08**	**1.85**	**3.13**	**37.10**	**1.08**	**36.02**	**85.59**
	II Top	59.98	4.66	6.21	49.11	1.89	47.22	78.72
	II Middle	139.75	11.83	11.24	116.68	3.83	112.86	80.75
	II TM	76.09	7.28	5.63	63.18	1.77	61.40	80.70
	II Bottom	116.05	10.76	9.90	95.39	2.89	92.50	79.71
	II MB	17.90	1.71	1.32	14.86	0.42	14.44	80.70
	II Combined	7.23	0.70	0.54	6.11	0.17	5.94	80.70
	Seam-II	**417.13**	**36.95**	**34.85**	**345.33**	**10.97**	**334.36**	**80.16**
	I Top	36.93	2.72	9.30	24.81	0.77	24.05	65.11
	I Middle	72.97	5.27	18.20	49.49	1.66	47.84	65.56
	I TM	2.51	0.23	0.79	1.49	0.04	1.45	57.80
	I Bottom	35.60	2.52	8.69	24.29	0.52	23.87	67.06
	I MB	14.85	1.35	4.67	8.83	0.24	8.58	57.80
	I Combined	3.58	0.33	1.13	2.13	0.06	2.07	57.80
	Seam- I	**166.44**	**12.42**	**42.88**	**111.14**	**3.28**	**107.86**	**64.81**
	L1	2.60	0.10	0.35	2.15	0.11	2.04	78.62
	K5	0.13	0.01	0.06	0.06	0.01	0.05	36.32
	K4	4.24	0.13	1.11	2.97	0.11	2.86	67.83
	K3	3.34	0.22	0.86	2.26	0.06	2.20	65.95
	K2	5.38	0.27	1.14	3.97	0.07	3.90	72.40
	K1	15.24	1.25	4.65	9.34	0.41	8.93	58.62
	Seam-Local	**30.90**	**1.98**	**8.17**	**20.75**	**0.77**	**19.98**	**64.66**
	Total	**828.03**	**58.74**	**106.22**	**663.07**	**20.72**	**642.35**	**77.58**

p) Depletion of reserves (in case of running mine)	Not applicable
q) Additional Reserves (in case of running mine)	Not applicable

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(1a)/2009-CA/MM
Ministry of Coal, Govt. of India

पवन देव जाग्रता/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

r) Geological Reserves considered for mining	PB West & East: By opencast: 707.67 Mt (as per CMPDI GR).This is Net geological reserves from Seam-I to V and seam K-1 to K-5, including both proved and indicated reserves upto 300 m depth. PB North West: By opencast:137.584Mt (as per MECL GR).This is Net geological reserves from Seam-I to V, including both proved and indicated reserves upto 300 m depth.
s) Corresponding Extractable Reserve	**PB-East and West:** Open cast mineable reserve 503.38 Mt **PB-North West:** Open cast mineable reserve 138.96 Mt Total **642.34 Mt.**
t) Percentage Recovery w.r.t geological reserves	**Percentage Recovery w.r.t proved geological reserves:** Overall: 78%

5. Mining

a) Existing and Proposed method of mining Opencast Underground	Shovel dumper combination system with horizontal slicing pattern would be adopted in mining mass i.e. OB, coal and intervening parting. Bord and Pillar and Blasting gallery (which is a variation of Bord and Pillar) methods for this property.
b) The peak capacity as well in addition to targeted capacity in Mtpa when mine is fully developed and the year in which proposed to be achieved	Opencast: Targeted Capacity-18Mtpa Year of Achieving:12th
c) Life of mine Overall	- 52 Years - 27 years for West Quarry -15 years for East Quarry. -39 years overall for PB

SANJIV KUMAR SINGH
Designated Qualified Person
Reg. No. 14011(12)/2008-CPAM
Ministry of Coal, Govt. of India

पवन देव जानकी/PAWAN DEV JANKI
उप महाप्रबंधक (सी.एम.)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Opencast workings :	West and East (3 year overlapping period for East and West Quarries). -52 years PB- A Quarry All workings are Opencast
d) Quantum of production and expected grade:	642.34 Mt, G-10
e) Conceptual Calendar Program	

Opencast				ROM Coal (Mt)	Beneficiated Coal (Mt)	Washery rejects (Mt)
Yr	Production Mt	OB (Mcum)	Stripping Ratio (Mcum/t)			
1	3.14	8.89	2.83	3.14	Not applicable	Not applicable
2	6.27	18.32	2.92	6.27		
12	18	52.20	2.90	18		
35	18	77.44	4.30	18		
52	1.46	1.48	1.01	1.46		
Conceptual	642.34	2536.75	3.95	**642.34**		

Dump C has been planned over the area where the coal is beyond 300 m depth line and thus suitable for exploitation by underground means. As such no coal shall get sterilized due to Dump C.

Dump D has been planned for PB East on non opencastable area where quarriable potential is not indicated in the GR.

f) Whether negative proving for coal in the proposed site for OB dump/ infrastructure has been done.	The infrastructure facilities and external waste dumping area (A, B) has been selected beyond the Incrop of Seam-I Bottom as indicated in GR. CMPDIL drilled eight boreholes in this area. Karharbari seams are encountered in 7 boreholes, however these seams are erratic and impersistent in nature and lacks opencast potentiality. No attempts were made to estimate the reserves however, If required negative probing boreholes will be drilled before starting of OB Dumping. Incase any quarriable patch is found, the same will be mined before starting waste dumping. If deeper seams (viz. Karharbari group seams K1 to K5) are found during the negative proving of this area, such seams will be extracted by underground mining.

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

<table>
<tr><td></td><td></td></tr>
<tr><td>g) Proposed configuration of HEMM for OC (Coal and OB)</td><td>PB-West & East Quarry
<table>
<tr><th rowspan="2">Equipment</th><th colspan="2">Open cast</th></tr>
<tr><th>OB</th><th>Coal/Parting</th></tr>
<tr><td>Shovel</td><td>20m³</td><td>8.3 m3</td></tr>
<tr><td>Dumper</td><td>170/190T</td><td>100/120 T</td></tr>
<tr><td>Drill</td><td>250 mm</td><td>160mm</td></tr>
<tr><td>Dozer</td><td>410 HP</td><td>410 HP</td></tr>
</table>
PB- NW Quarry
<table>
<tr><th rowspan="2">Equipment</th><th colspan="2">Open cast</th></tr>
<tr><th>OB</th><th>Coal</th></tr>
<tr><td>Shovel</td><td>10 m³</td><td>5.5 m3</td></tr>
<tr><td>Dumper</td><td>100T</td><td>60 T</td></tr>
<tr><td>Drill</td><td>250 mm</td><td>160mm</td></tr>
<tr><td>Dozer</td><td>410 HP</td><td>410 HP</td></tr>
</table></td></tr>
<tr><td>h) Mode of entry for Underground mines</td><td>Vertical Shaft</td></tr>
<tr><td>i) Operations that are proposed to be outsourced</td><td>As on date, an entire operation of Pakri Barwadih Coal Project will be outsourced.</td></tr>
<tr><td>j) Proposed coal evacuation facilities
Face to Surface

Surface to end-use plants</td><td>Excavator and dumper system for extracting coal and dumping the same at ROM pad and after primary crushing transporting it to Stockpile by Conveyor belts

By combination of Cross Country Conveyor and Railways for end-use plants.</td></tr>
</table>

6. End-use of Coal

a) Capacity of the	Basket linkage

SANJIV KUMAR SINGH
Manager Qualified Person
No. 34011/HQ/2008-CPAM
Ministry of Coal, Govt. of India

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

approved end use plants and b) Coal required for end-use plant with grade	
c) %age of end use requirement to be met from this mine	Basket Linkage
d) If washing/beneficiation of the coal is planned to be conducted on site or adjacent to the extraction area	Coal washability study has not yet been carried out for Pakri Barwadih Coal. Coal quality parameters obtained from the proximate analysis of coal revealed that ash percentage in all probability is likely to remain 34% or below which does not call for commissioning of coal washery. However to cater for more stringent future quality stipulations, space allocation is earmarked for commissioning of Coal Washery at mine end to facilitate transport of washed coal to the power plants as per qualitative requirements.
e) Proposed use of Rejects/Middling	Not applicable

7. Environmental Management

a) Land area indicating the area likely to be degraded due to mining, dumping, roads, workshop, washery, township etc.

Type	PB West &East	PB NW	Total of PB
Mining Area	1600.00	382.00	1982.00
	0.00	0.00	0.00
Barrier zone	8.97	1.03	10.00
Proposed road on North side	12.55	1.45	14.00
Area under Nala/ River	45.00	25.00	70.00
External dump	825.76	14.45	840.21
Top soil dump	40.00	7.14	47.14
Settling pond	10.76	1.24	12.00
Infrastructure area	273.50	4.85	278.35
Rationalisation /Unutilized area	823.46	47.84	871.30
Area for UG *	570.00	0.00	570.00
Total	**4210.00**	**485.00**	**4695.00**

SANJEV KUMAR SINGH
Designated Qualified Person
Ex. 34911(11)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जामता/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

b) Existing land use pattern

Sl. No.	Class of land		Area in ha
1	Forest		1787
2	Non-forest	Govt.	388
		Private Land	2520
		Total	4695

c) Surface features over the block area: Refer to Plate No.-5

d) No. of villages/ houses to be shifted

S. No.	Name of Village	House Hold to be shifted (No's)
1	Arahara	242
2	Dadikalan	663
3	Chepakalan	460
4	Jugra	398
5	Lakura(P)	59
6	Itiz	125
7	Chirudih	10
8	Nagadi	261
9	Pakri-Barwadih	331
10	Urub	115
11	Deoria Khurd(P)	184
12	Churchu	254
13	Sonbarsa	242
14	Sinduari	228
15	Chepakhurd	278
16	Keri(P)	93
17	Langatu(P)	462
18	Barkagaon(P)	126
19	Deorikalan(P)	195
20	Sirma	17
21	Nawadih(P)	10
22	Basaria	22
23	Kandaber(P)	178
24	Jabra	8
25	Beltu(P)	6
26	Bariatu(P)	11

e) Population to be affected by the Project: 8339 Nos.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34311/(1)/2008-CPAM
Ministry of Coal, Govt. of India

पवन देव जमटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

f) Year wise proposal for reclamation of land affected by mining

The table below shows the year wise proposal of reclamation of land:

Yearly Details of reclamation of land

(West Quarry , East Quarry & NW Quarry)

Year	Dump Stabilization & Vegetation (Ha)
First Year Stage	-
3rd year Stage	19
5th year Stage	64
10th year Stage	177
20th year Stage	389
30th year Stage	557
40th year Stage	617
Final Stage	334

g) Monitoring schedules for different environmental components after the commencement of mining and other related activities

The full-time environmental staff will conduct routine field monitoring and reporting to provide a close supervision on the surrounding natural environment and provide early warnings of any adverse changes that may be related to some dimension of the mining and allied operations. The schedule, duration and parameters to be monitored are shown in the following table.

Sl. No	Description of Parameters	Schedule and Duration of Monitoring
1	Slope Failure	Bi-Weekly
2	Land Erosion	Weekly
3	Drainage	Daily
4	Blasting effect	As per mine workings and blasting
5	Re-vegetation and Green belt development	Yearly
6	Monitor Plantation Measures	Yearly
7	Surface Subsidence	Bi-Weekly

Deputy General Manager (Commercial)
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

	8	Water Quality Monitoring(Ground & Surface)	
		Water quality of Surface and ground water around the site (All parameters specified by JSPCB)	Monthly
	9	Emissions and Air Quality (RPM,SO_2, NO_x, CO)	24 hourly samples with analysis carried out monthly all-round the year.
	10	Meteorological Station	Continuous
	11	Air Quality	Continuous
	12	Noise Quality	Continuous
	11	Occupational Health	Bi-Weekly

8. Mine Closure Plan

a) Estimated total capital expenditure for Mine closure activities	Rs. 318.55 Crores(current cost)	
b) Major closure Activities with proposed Capital Expenditure	**Activities to be undertaken**	**Total (Rs.) in Cr**
	Total closure cost for opencast mine (compounding @ 5% escalation)	1321.08
	Total closure cost for underground mine (compounding @ 5% escalation)	52.12
	Total closure cost for Pakri Barwadih Mine	1373.20

9. Others

a) Base date of Mining Plan	November 2015
b) Calendar year from which the production will start from the zero date i.e. date of approval of mining plan	2016
c) Results of any investigation carried out for scientific mining, conservation of minerals and protection of environment; future proposals	NA
d) Signature of RQP Date 21/11/2016 Place NEW DELHI	Sanjiv K. Singh

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जामटा/PAWAN DEV JAMTA
Deputy General Manager
एन टी पी सी लिमिटेड/NTPC LIMITED
EGC, A-8A, Sector-24, Noida-201301 (U.P.)



CHAPTER I

INTRODUCTION

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (पर्यावरण)
Deputy General Manager (Cor. Mgt.)
एन टी पी सी लिमिटेड NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

SANJIV KUMAR SINGH
Recognised Qualified Person
Reg. No. (15)/2005-CPAM
Ministry of Coal, Govt. of India



पवन देव जामदा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

CHAPTER I

INTRODUCTION

1.1 Overview

The Pakri Barwadih Coal Block is located in North Karanpura Coalfields in Hazaribagh district of Jharkhand state. The block has been allocated to NTPC Ltd., for captive mining for supply of coal to their super thermal power stations by Ministry of coal, Government of India vide letter no. 13016/29/2003-CA, New Delhi, dated 11th Oct 2004 & DO No.13016/29/2003-CA dated 24th August 2005 for a total area of 46.26 sq km. Copy of letter enclosed as **Annexure-I** and **Annexure-II**.

1.2 Background of NTPC Ltd.

The company was incorporated on 7th November, 1975 under the Companies Act, essentially to promote power generation in the Country. Subsequently, the name of the Company was changed to its present name NTPC Limited and a fresh certificate of incorporation was issued on October 28, 2005. The name of the Company was changed to reflect the diversification of business operations beyond thermal power generation to include, among others, generation of power from hydro, nuclear and renewable energy and undertaking coal mining and oil exploration activities.

The Company is not operating under any injunction or restraining order.

1.3 Installed Capacity of NTPC

Present installed capacity of NTPC is 45,548 MW (including 6,196 MW through JVs) comprising of 41 NTPC Stations (18 Coal based stations, 7 combined cycle gas/liquid fuel based stations, 1 Hydro based station), 7 Joint Venture stations (6 coal based and one gas based) and 8 renewable energy projects. Installed Capacity of NTPC is given in **Table 1.1**. Regional Spread of Generating Facilities is given in **Table 1.2**.

SANJAY KUMAR SINGH
Recognised Qualified Person
No. 340 (15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10.

Pawan DEV JAMTA
पवन देव जामता/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

TABLE 1.1

Installed Capacity of NTPC

Sl.No.	NO. OF PLANTS	CAPACITY (MW)
NTPC Owned		
Coal	18	34,425
Gas/Liquid Fuel	7	4,017
Hydro	1	800
Renewable energy projects	8	110
Total	34	38,802
Owned By JVs		
Coal & Gas	7	6,196
Total	**41**	**45,548**

TABLE 1.2

Regional Spread of Generating Facilities

REGION	COAL	GAS/Liquid	Renewable	TOTAL
Northern	9,515	2,344	35	11,894
Western	10,840	1,313	50	12,203
Southern	4,600	360	10	4,970
Eastern	9,470	-	10	9,480
Islands	-	-	5	5
Hydro	-	-	-	800
JVs	4,229	1,967	-	6,196
Total	**37,904**	**5,984**	**110**	**45,548**

SANJIV KUMAR SINGH
Recognised Qualified Person
Reg. No. 340 /(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 340/1/(15)/2009-CPAM dated 27.09.10.

PAWAN DEV JAMATA
Deputy General Manager (Commercial)
For & On Behalf of NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

1.3.1 Coal Based of end-use plants:

With 18 coal based power stations, NTPC is the largest thermal power generating company in the country. The company has a coal based installed capacity of 34,425 MW. **Table 1.3** shows the existing power plants of NTPC with location and capacity.

Location of coal based end-use plants with capacity along with the installed capacity and the Coal Based Joint Ventures of NTPC is given in **Table 1.3 & 1.4** respectively.

TABLE 1.3

LOCATION OF END USE PLANTS

(Coal Based and Under Commercial Operation)

Sl. No.	COAL BASED STATION	STATE	COMMISSIONED CAPACITY(MW)
1	Singrauli	Uttar Pradesh	2,000
2	Korba	Chhattisgarh	2,600
3	Ramagundam	Telangana	2,600
4	Farakka	West Bengal	2,100
5	Vindhyachal	Madhya Pradesh	4,760
6	Rihand	Uttar Pradesh	3000
7	Kahalgaon	Bihar	2,340
8	Dadri	Uttar Pradesh	1,820
9	Talcher Kaniha	Odisha	3,000
10	Feroze Gandhi, Unchahar	Uttar Pradesh	1,050
11	Talcher Thermal	Odisha	460
12	Simhadri	Andhra Pradesh	2,000
13	Tanda	Uttar Pradesh	440
14	Badarpur	Delhi	705
15	Sipat	Chhattisgarh	2,980
16	Mouda	Maharashtra	1000
17	Barh	Bihar	1320
18	Bongiagaon	Assam	250
	Total Installed Capacity		**34,425**

TABLE 1.4

COAL BASED JOINT VENTURES

SANJAY KUMAR SINGH
Registered Qualified Person
No. [illegible]
Ministry of Coal, Govt. of India

पवन देव जामता/PAWAN DEV JAMTA
उप महाप्रबन्धक (कार्यपालक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

SL. NO	COAL BASED (Owned by JVs)	STATE	COMMISSIONED CAPACITY (MW)
1.	Durgapur	West Bengal	120
2	Rourkela	Orissa	120
3	Bhilai	Chhattisgarh	574
4	Kanti	Bihar	415
5	IGSTPP, Jhajjar	Haryana	1500
6	Vallur	Tamil Nadu	1500
	Total		4,229

1.3.2 Projects Under Implementation and Future Capacity Addition:

NTPC, India's largest power company, was set up in 1975. Present installed capacity is 45048 MW and additional 23504 MW(capacity is under construction. To realise the vision of becoming a world class power major, NTPC has plans to become 128000 MW company by 2032. Projects under implementation is given in **Table 1.5**. Capacity addition path is given in **Fig-1.1.**

TABLE 1.5

PROJECTS UNDER IMPLEMENTATION (Coal Based Thermal)

UNDER CONSTRUCTION	
COAL	
STAND ALONE	
BARH-I	1980
BONGAIGAON	500
VINDHYACHAL-V	500
KUDGI-I	2400
MAUDA-II	1320
SOLAPUR	1320
LARA-I	1600
GADARWARA	1600
UNCHAHAR-IV	500
DARLIPALI	1600
NORTH KARANPURA	1980
TANDA-II	1320
KHARGONE	1320
TOTAL	17940
SUBSIDIARY/JVs	
NABINAGAR (BRBCL)	1000

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340 /(13)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जामटा/PAWAN DEV JAMTA
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

KANTI-II (KBUNL)	195
MEJA (MUNPL)	1320
NABINAGAR (NPGCPL)	1980
TOTAL	4495
TOTAL COAL	22435
HYDRO	
TAPOVAN VISHNUGAD	520
LATA TAPOVAN	171
RAMMAM	120
TOTAL HYDRO	811
RENEWABLE	
SINGRAULI HYDRO	8
AP SOLAR PV	250
TOTAL RE	258
GROUP TOTAL	23504

Capacity Addition Path

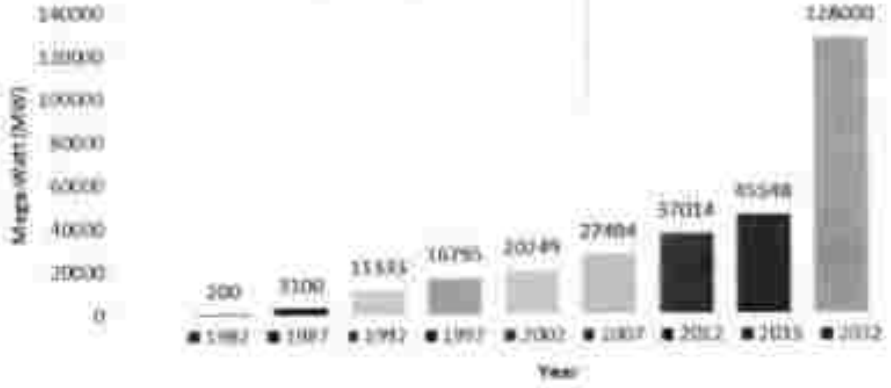


Fig 1.1.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

1.4 Coal Mining in Pakri Barwadih Block

Due to increase in plant load factor and future expansion program of NTPC, the gap between demand and supply of coal is continuously increasing. To elaborate it further, the existing power stations had been accorded with long-

PAWAN DEV JAMTA
Deputy General Manager (Commercial)
EDC, A&A, Sector-24, Noida-201301 (U.P.)

term coal linkages on the then prevalent norms of Plant Load Factor (PLF), whereas as per Government norms these power stations are now required to perform at much higher level (>90%), as a result was foreseen that the gap between demand and availability of fuel would further increase. In addition to the above NTPC has ambitious plans for capacity augmentation as explained in **Table 1.5**. Considering the above, NTPC decided to diversify in the coal mining through backward integration. In this regard, Board of Director of NTPC modified its 'Memorandum of Association & Articles of Association' to accommodate the activities of Coal Mining from the fuel security point of view.

NTPC intends to work the entire property of allocated Pakri Barwadih block by mining of coal in scientific manner optimally with due regard to conservation, safety and environmental protection to enable NTPC to partly reduce the gap of demand and supply to NTPC power plants as indicated.

Geological/Mineable Reserves of Pakri Barwadih are given in **Table: 1.6**.

TABLE 1.6
Geological/Mineable Reserves of Pakri Barwadih

million tonnes

Sl. No.	Reserves*	PB-West & East	PB-NW	Total
1	Net Geological	1436	137.6	1573.6
2	Amenable for Open Cast	707	121.03	828.03
3	Amenable for Underground	729	0	729
4	Mineable	503.39	138.96**	642.34

** Reserves up to 300m depth have been considered for opencast mining.*
***33.18 Mt of coal shall be mined as Barrier& Batter Coal between PBW & PB-NW.*

1.5 Revision of Mining Plan

1.5.1 Mining Plan of Pakri Barwadih

Mining plan of Pakri Barwadih coal block which covered mining of Western and Eastern Area of the block, has been approved by MoC vide letter no.13016/29/2003/CA – I dated 26.08.2006 **(Copy enclosed as Annexure-IIIA)**. North Western part (Sector – A) was not covered as it was unexplored. Copy of letter enclosed as

1.5.2 Mining Plan of Pakri Barwadih North West Quarry (Sector-A)

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10.

Page 1 of 6

As already explained at that time of preparation of Mining Plan for the Pakri Barwadih Block the present area on the north western side of the block, now referred to as "**Sector– A**" was not explored. In the Approved Mining Plan NTPC had committed to carry out a detailed exploration of the area and submit a separate Mining Plan within six (6) months of the preparation of the GR. As per the commitment, detailed exploration was carried out and "Geological report (GR) of Sector- A was submitted by MECL in October 2012.

As per the commitment given by NTPC a separate Mining Plan of North West part (Sector-A) of capacity 3 MTPA was prepared and submitted to MoC on 02.07.2013. Geological reserves are 137.584 Mt, out of which Opencast mineable reserves were envisaged to be 106.688 Mt and the underground reserves are 30.896 Mt. Copy of letter enclosed as **Annexure-IV.**

1.5.3 Mining Plan of Pakri Barwadih-East

In order to augment the coal production from Pakri Barwadih block NTPC proposed to simultaneously commence production from Eastern Part of the block. Mining Plan of East Quarry of Pakri Barwadih with production potential of 7 MTPA was prepared and submitted to MoC on 27.08.2013 for consideration of Standing Committee. Copy of letter enclosed as **Annexure-V.**

1.5.4 Revision of Mining Plan

Ministry of Coal vide its letter No.13016/29/2003-CA-I(Part) dated 9th October'2014 advised NTPC to submit a Revised Mining Plan (1st Revision) including Mine Closure Plan as a whole instead of in parts. Copy of letter enclosed as **Annexure-VI.** NTPC vide letter no. CC: CM: ENGG: 7010: MP: 8 dated 03.04.2015 submitted Revised Mining Plan (1st Revision) to MoC for consideration. Copy of letter enclosed as **Annexure-VII.**

1.5.5 Present Revision of Mining Plan

To ward off the delay in commencement of mining operation NTPC decided to start up Eastern Quarry and run for a period of two years in the interim period till appointment of Mine Developer cum Operator (MDO) for commencement of mining operations from Western Quarry. NTPC informed its intentions to MoC vide letter No. CC:PEM:7010:MP:83 dated 22.05.2015 (Copy of letter enclosed as **Annexure-VIII).** Inter-alia acceptance of proposal MoC vide letter No1306/29/2003-CA-I (Part) dated 24.06.2015 directed NTPC to submit a

RQP No. 34011/(15)/2009-CPAM dated 27.09.10.
SANJIV KUMAR SINGH
Empowered Certified Person
No. 241 (15)/2009-CPAM
Ministry of Coal, Govt. of India
पवन देव जामता/PAWAN DEV JAMTA
Deputy General Manager
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

revised Mining Plan within a period of three months after incorporating the changes in sequence of operation (Copy of letter enclosed as **Annexure-IX**).

1.6 Present Revised Mining Plan

1.6.1 Compliance

In compliance to the advice of MoC an integrated Mining Plan has been prepared with a targeted capacity of **18 MTPA** after incorporating the changes in sequence of operation and is submitted herewith to MoC for consideration and approval.

1.6.2 Salient Features of Present Mining Plan

i. Present Mining Plan deals with exploitation of opencastable mineable reserves upto 300m depth only. Underground mining is envisaged from 10th years of Mining operations. A separate mining plan shall be submitted to MoC for consideration for the reserves amenable for underground mining, subsequent to completion of drilling/detailed exploration in the area proposed for underground mining.

ii. Three distinct quarries have been carved out of Pakri Barwadih coal block namely

   a. Pakri Barwadih West
   b. Pakri Barwadih East
   c. Pakri Barwadih North-West (Sector-A).

PB East and PB West shall commence simultaneously. PB North West quarry (Sector-A) shall commence on 4th year. Workings of PB East shall be stopped after two years of operations. PB West quarry and PB North West Quarry shall continue to work for their designated life. PB East shall be restarted after exhaustion of reserves of PB West. Sequence of operations in different quarries is given in **Fig-2**.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340 /(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव सहायक/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्य)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Fig-2

Sequence of Operation for Pakri Barwadih Coal Mining Block (18 MTPA)

Production Years

Sl. No.	Name of Quarry	Peak Production	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	51	52
1	PB West	15 MTPA																																											
2	PB East	15 MTPA																																												
3	PB(NW) (Sector-A)	3 MTPA																																												

Note:

1. PB West shall continue mining operations till the end of 27 years.

2. PB east shall stop after two years of mining operation and shall restart on 25th years.

3. There will be overlapping period of 3 years i.e. from 25th to 27th years

4. PB (NW) shall continue upto 41 years of mining operations

5. Total peak production from the block is 18 mtpa.

6. From 40 Years 32 nd year coal of Barrier and Bottler locked between PB-NW & PB-West shall be extracted

RQP No. 34011/(15)/2009-CPAM dated 27.09.10.

SANJIV KUMAR SINGH
Recognised Qualified Person
Ref. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

iii. Three dedicated and separate Access Trenches shall be driven for operation of abovementioned three quarries. Both Coal and OB shall be produced from these three quarries through these trenches. Sequence of driving of the trenches shall correspond to the sequence of operation of quarries. PB East and PB West quarries shall produce peak capacity of 15 MTPA throughout the life either separately or in conjunction, while PB North West Quarry shall produce peak capacity 3 MTPA which together constitutes Pakri Barwadih an **15 MTPA Mine**.

iv. Infrastructure is planned for PB West quarry and PB NW quarry. Infrastructure proposed for PB West quarry such as CHP, Sub Station, Workshop, administrative buildings etc. shall be utilised progressively for eastern quarry with the rising production, but the infrastructure/facilities which could not be shared with PB West Quarry shall be constructed separately for PB East Quarry for the period of two years such as Haul roads, culverts drainage system etc. Certain facilities such as coal sampling lab, environmental cell, vocational training centre, magazine etc. shall be common for all three quarries.

v. A Megalith falls in the PB East quarry area. As per EC no mining is permitted within 500m radius of the Megalith. While complying with the requirement of EC, it transpired that approximately 20Mt of coal shall be sterilized in the zone of influence. This 20Mt is considered lost coal in the present Revised Mining Plan but the loss has been compensated by adoption of following measures.

   i. The Pakwa nala shall be re-aligned along the periphery of East Quarry.

   ii. Nala between North West quarry and west quarry shall be diverted along northern fringe of PB-NW Quarry after conducting required studies.

vi. Drilling & Blasting is proposed for preparation of coal and OB. Overburden of quarries shall be kept at designated locations. In pit dumping is proposed wherever the need arise. Top soil shall be kept at designated locations and shall be preserved. Crushing is proposed for reduction of coal from ROM to (-50) mm size. Trucks, Conveyors are proposed for transportation of coal, railway system is proposed for evacuation of coal, and provision of ancillary equipment needed for proper running of big opencast mine are kept in place.

SANJIV KUMAR SINGH
Recognised Qualified Person
Regd. No.-340111/15/2009-CPAM
Ministry of Coal, GOI

SAMTA
Deputy General Manager (CC-Planning)
PBGCL / NTPC LIMITED
SCC, A &A, Section

vii. Separate set of HEMM is proposed for all three quarries. On cessation of PB West Quarry all the HEMM shall be deployed in PB East quarry except for the period of initial two years for which separate set of HEMM are proposed. Shovel dumpers are proposed for excavation, loading and in pit transportation. Primary and secondary crushers are proposed for crushing of coal to desired size. Cross country conveyor are proposed to transport the coal from mine end to Benadag siding. Coal shall be loaded in the railway wagon by Rapid Loading system from where coal shall be transported to designated power plants.

viii. Coal washability study has not yet been carried out for Pakri Barwadih Coal. Coal quality parameters obtained from the proximate analysis of coal revealed that ash percentage in all probability is likely to remain 34% or below which does not call for commissioning of coal washery. However to cater for more stringent future quality stipulations, space allocation is earmarked for commissioning of Coal Washery at mine end to facilitate transport of washed coal to the power plants as per qualitative requirements.

ix. Detailed exploration of the area earmarked for extraction by underground mining below proposed Dump-C shall be carried out, much in advance so as not to jeopardise the reserves.

x. Provision has been kept for Effluent Treatment Plant, Sewerage Treatment Plant, wet drilling, dust suppression & Fire Fighting arrangement in crushers and CHP arrangement etc. in line with stipulation of Environmental Clearances.

xi. Environment Clearance (EC) and Forest Clearance (FC) have been accorded for PB West & PB East Quarry and Coal Conveyor Corridor. In the present Mining Plan NW Quarry along with its dedicated conveyor corridor is integrated for which EC and FC is not available. It is expected the above clearances may be obtained in 3-4 years' time frame, accordingly commencement of PB NW Quarry is deferred by three years.

1.7 PROSPECTING AGENCIES

Following agencies have carried out exploration for Pakri Barwadih Coal Block:

- Geological Survey of India, Kolkata
- Central Mine Planning & Design Institute Ltd, Gondwana Place, Kanke Road, Ranchi-834008

SANJIV KUMAR SINGH Assistant Director Perspective Unit, MoC (F.No.11/2/2009-CPAM) Government of India, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10.

PRADEEP JAMTA Deputy General Manager (Commercial) NTPC LIMITED C-GM, Sector-24, Noida-201301 (U.P.)

- Mineral Exploration Corporation Limited, Dr.Babasaheb Ambedkar Bhavan, Seminary Hills, Nagpur

1.8 PERIOD OF WHICH MINING LEASE ACQUIRED

Being Public Sector Organization NTPC is acquiring land under CBA (A&D) Act, 1957 within the Coal block area and for area outside the block boundary the area is acquired under "The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013", LARR-2013/LA Act 1894, hence obtaining lease from the State Government is Not Applicable.

1.9 COAL SUPPLY FROM PAKRIBARWADIH COAL MINING PROJECT

Pakri Barwadih Coal Mine is having basket linkage and will make up for the shortfall in supply for coal in the existing and/or upcoming power projects of NTPC. Coal supply from PB block is not envisaged to replace any existing linkages. Calculation for Coal requirement for the company and % of coal likely to be met from this project is given in **Table-1.7**.

Table-1.7.
Coal Requirement and Meeting Coal Requirement

Sl. No.	Paramerer	Unit	Value
1	Thermal Power (Coal-Commercial) Capacity as on 31-Mar'15	MW	34425.00
2	Heat Rate	kCal/kWh	2386.00
3	Average GCV of blended coal (Domestic + Imported)	kcal/kg	3367.80
4	Sp. Coal Consp. blended coal (Domestic+Imported)	kg/kWh	0.71
5	PLF	%	0.80
6	Coal Consp. (Domestic+Imported)	Million Tonnes	171.41
7	Coal Requirement (Domestic Coal) for 92% PLF	Million Tonnes	207.81
8	Coal availability from Pakri barwadih	MTPA	18.00
9	Other Blocks of NTPC	MTPA	0.00
10	Percentage of end use requirement to be met from Pakri Barwadih mine	%	9%

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340 (15)/2009-CPAM
Ministry of Coal, Govt. of India

1.10 DESPATCH OF COAL

ROM coal shall be crushed in two stages to final product size of (-50) mm. From the mine end (-50) mm shall be transported through cross country conveyor system up to the loading silos. Independent coal evacuation system by cross country coal conveyor system is envisaged for PB West quarry and PB North West Quarry. Coal produced from PB East shall be transported from the cross country conveyor envisaged for PB West quarry. NTPC shall construct Railway Siding at Banadag where the loading silos are located. From the silo, coal shall be transported though the Indian Railways network to the identified endues power stations of NTPC.Road transport is being envisaged till the completion of the proposed Cross Country Conveyor.

1.11 NAME OF APPLICANT WITH COMPLETE ADDRESS

TABLE 1.8
NAME OF APPLICANT WITH COMPLETE ADDRESS

LOCAL OFFICE	REGISTERED OFFICE
NTPC Limited Sh R.S.Rathee, ED (PB/CB/KD) Pakri Barwadih Coal Mining Project Ujjwal Complex, Pugmil Road, Hazaribegh, Jharkhand – 825301	NTPC Limited Sh Sharad Anand, Regional Executive Director, Coal Mining, 6th Floor, Core 6, NTPC Ltd, Scope Complex , Institutional Area, Lodhi Road , NewDelhi-110003
Ph:06546 - 270622, 9470575777	Ph:011-24362871
Fax:06546 – 270744	Fax : 011-24367089
Email: rsrathee@ntpc.co.in	Email : sharadanand@ntpc.co.in

1.12 BOARD OF DIRECTORS OF COMPANY

TABLE 1.9
BOARD OF DIRECTORS OF COMPANY

SL. NO.	NAME	DESIGNATION
1.	Mr. A.K.Jha	CMD cum Director (Technical)
2.	Mr. U.P.Pani	Director (HR)
3.	Mr. S.C Pandey	Director (Projects)
4.	Mr. Kusumani Biswal	Director (Finance)
5.	Mr. K.K Sharma	Director (Operations)
6.	Dr. Pradeep Kumar	Govt. Nominee

SANJIV KUMAR SINGH
Assistant General Manager
(Coal Mining)
Regional Executive Director (CM)
NTPC Limited

DEV JAMTA
Deputy General Manager (Commercial)
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

SL. NO.	NAME	DESIGNATION
7.	Mr.Prashant Mehta	Independent Director
8.	Mr. Rajesh Jain	Independent Director
9.	Dr. Gauri Trivedi	Independent Director

1.13 RECOGNISED QUALIFIED PERSON

MoC has accorded grant of recognition to Sh. Sanjiv Kumar Singh of NTPC as competent person to prepare Mining Plan for Coal Block/Lignite of NTPC only. Particulars of RQP are given in **Table-1.10**. Copy of letter enclosed as **Annexure-X**.

TABLE 1.10

RECOGNISED QUALIFIED PERSON

Name		Mr. Sanjiv Kumar Singh
Address (i) Office	:	4th Floor, Core 5,NTPC Bhawan, SCOPE Complex, 7 Institutional Area, Lodhi Road, New Delhi- 110 003
Fax	:	011-24377089
E-mail	:	sanjivkumarsingh01@ntpc.co.in
Registration Number	:	34011/(15)/2009-CPAM
Date of grant / renewal	:	27.09.2010
Phone	:	011-24367669, 9650991390

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Deputy General Manager (Commercial)
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

CHAPTER II

DETAILS OF EARLIER APPROVED MINING PLAN

पवन देव जाणता/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)



पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

CHAPTER II

EARLIER APPROVED MINING PLAN

2.1. EARLIER APPROVED MINING PLAN

Mining Plan for the Pakri Barwadih Coal Project was approved by Ministry of Coal vide letter number 13015/29/2003-CA-I dated 25th August, 2006. A copy of the Approved Mining Plan along with Approval Letter is enclosed as **Annexure-III** and **Annexure-III A**.

Salient features of Approved Mining Plan is given in Table 2.1.

Table-2.1
Salient features of the Approved Mining Plan

Sl. No.	Heads	Particulars		
	Name of Project	Pakri Barwadih Coal Block		
	Location	North Karanpura Coalfield,		
		District: Hazaribagh , Jharkhand		
	Company	NTPC Ltd		
	Block Allotment Reference No.	Block allotted vide ref no 13016/29/2003-CA, New Delhi dated 11th October 2004 and DO no 13016/29/2003-CA dated 24.8.2005		
	Block Area	4626 Ha		
	Nearest Township	Hazaribagh		
	Nearest Railway Station	Ranchi Road and Chitarpur		
	Nearest Airport	Ranchi		
	No. of Workable Seam	12 workable splits in 5 seams		
	Seam Gradient	$10^0 - 20^0$		
	No. of faults	19		
	Total Geological Reserves within the block	1436 Mt		
	Proved	702.70 Mt		
	Indicated	733.20 Mt		
		Mineable Reserves (Mt)	Vol. Of OB (M cum)	Av. S. R. (cum/t)

SANJIV KUMAR SINGH
Recognised Qualified Person
Ltr. No. 34011/2008-CPAM
Ministry of Coal, Govt. of India

पवन देव जनता/PAWAN DEV JANTA
Deputy General Manager (Coal Mining)
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

	Reserves & Overburden	503.39	2098.78	4.16
	Target Output (Mtpa)	15		
	Quality of coal	Grade D – E (Avg. E)		
	Specific gravity of coal (Avg.)	1.68 t/cum		
	Method of Mining	Opencast (Shovel-Dumper combination)		
	Main Customer	All power plants of NTPC Ltd		
	Life of the Mine including Construction Period	39 Years		

	Equipment	Size	No
Main Equipment	Overburden		
	Electric Rope Shovel	20 Cum	7
	Electric Rope Shovel	10 Cum	5
	Electric hydraulic shovel	8.3 Cum	14
	Rear Dumper	170-190T	78
	Rear Dumper	120-150T	152
	RBH Drill	250 mm	24
	RBH Drill	160 mm	10
	Track Dozer	310 kW	30
	Coal		
	Electric hydraulic	4.5 Cum	9
	Rear Dumper	50 T	77
	RBH Drill	160 mm	15
	Track Dozer	310 kW	15
	Wagon drill	100 mm	3

Mine Parameters	West Quarry	East Quarry
Maximum Depth (m)	300	300
Maximum strike length (Km)	5.5	3.8
Maximum width (Km)	1.66	1.71

2.2. Compliance of Conditions imposed if any with approval of the mining plan

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340 (15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Deputy General Manager (Coal Mining)
NTPC LIMITED
SOC A-8A, Sector-24, Noida-201301 (U.P.)

Sl. No	Compliance of Condition(s) imposed	Action
1(i)	The Mining Company shall achieve the 15 Mtpa production level from the opencast by 12th year.	The built up of production level for PB West has been kept the same as mentioned in the approved Mining Plan. PB East is planned to commence with PB West .Operations of PB East shall cease after 2 years and will restart again from 25thyear of Mining operation. NTPC shall achieve 15 Mtpa production level from the opencast by 12th year.
1(ii)	As regards of coal block that has also been allotted to ONGC for Coal Bed Methane extractions, the conditions laid down in the allotment letter shall be fully complied.	Will be complied during operation stages.
1(iii)	The approval of the Mining Plan is without prejudice to the requirement of approvals from competent/prescribed authority under the relevant rules/regulations etc.	All necessary approval under relevant rules/regulations shall be obtained without prejudice to the requirement of approvals from competent/prescribed authority.
2	Two copies of the Approved Mining Plan duly signed by the competent authority are returned herewith with the request that a copy of the Approved Mining Plan may be submitted to the concerned state government for necessary action and also a photocopy of the Approved Mining Plan may be sent to the Coal Controller for monitoring of the block.	Complied

2.3. Status of Mining Plan submitted to MoC

Detailed in Clause No. 1.5 of Chapter-I

2.4. Revision of Mining Plan

SANJIV KUMAR SINGH
Recognised Qualified Person
EOC, A&A, Sector-24, Noida-201301 (U.P.)

Detailed in Clause No. 1.5.4 of Chapter-I

2.5. Present Mining Plan

Detailed in Clause No. 1.6 of Chapter-I.

2.6. Reasons for revision of Mining Plan

2.6.1 To fulfill the commitment given to Government regarding start of Coal Production and also keeping in view the likely time taking process of award of MDO for PB West Quarry because of densely populated /hostile villages and densely populated /hostile villages existing within PB West Pit as well as connecting roads, NTPC has proposed to commence Mining Operations in the PB East Quarry (Shown as EP 1 in Surface Master Plan) area adjacent to main road where land is available.

2.6.2 OB removal and Coal production has been planned from a patch of PB East Quarry (Eastern Pit 1) for two years as Interim Arrangement. The Plans showing the proposed stage of working by the end of First Year and Second Year are given in respective Stage Plan. Proposed area for mining has been mainly selected due to the availability of land for mining as well as ease of approach from the State Highway.

2.6.3 As a result of early startup of PB East Quarry there is a variation in the calendar Programme and Land Use Pattern of the mine.

2.6.4 PB NW Quarry which was unexplored at the time of approval of mining plan is now integrated with the present Revised Mining Plan (1st Revision). Resultant coal evacuation facilities from road and coal handling plant and additional volumes of OB/coal mining shall change the calendar programme and Land Use Pattern.

2.6.5 MoC vide letter No1306/29/2003-CA-I (Part) dated 24.06.2015 directed NTPC to submit a revised Mining Plan within a period of three months after incorporating the changes in sequence of operation (Copy of letter enclosed as **Annexure-IX**)

2.7. Changes in Revised Mining Plan with respect to Approved Mining Plan.

2.7.1 Change in mining sequence

The proposed quarry area is part of PB East Quarry as per approved Mining Plan and is located in its North-Eastern part and is named Eastern Pit-1 (EP-1). The proposed quarry namely EP-1 is at a distance of approximately 850 m in North-West direction from the Tandwa-Barkagaon-Hazaribagh State Highway and is accessible by road connecting to Arhara village from the State Highway. However in variance with the approved Mining Plan, Eastern Quarry

SANJIV KUMAR SINGH *RQP No. 34011/(15)/2009-CPAM dated 27.09.10*
Assistant Director
Nodal Officer
Coal Controller's Organisation
Ministry of Coal, Govt. of India

पवन देव जमुटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
पाकरी बरवाडीह / NTPC LIMITED
Pakri Barwadih, Noida-201301 (U.P.)

is now planned to be started in 1st year of Mining Operations instead of 25th year. In the approved Mining Plan PB East Quarry was to start in 25th year of Mining operation.

2.7.2 External Dump Area

The land for external dumps as per approved Mining Plan Dump A, B, C is presently not available. Accordingly, to start mining operations, External Dump has been envisaged in the available land in the north side of this quarry area. This area lies partly in the area earlier identified for coal evacuation facilities. The area has been shown in Surface Master Plan). Forest diversion of this external dump area has been obtained and change of land use of this area has been taken up with MoEF.

2.7.3 Variation in Coal Transportation Arrangement

As per earlier approved Mining Plan coal is planned to be transported through belt conveyor to Banadag Railway siding which are under construction. It is proposed that coal shall be transported to Banadag Siding by Road till the construction of cross country conveyor.

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (पर्यावरण)
Deputy General Manager (Environment)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340 (15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

CHAPTER III

LOCATION, TOPOGRAPHY AND COMMUNICATION



पवन देव जामता/PAWAN DEV JAMTA
वरिष्ठ महाप्रबंधक (सीमा शुल्क)
Dep. Jr. General Manager (Customs)
एन टी पी सी लिमिटेड / NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

CHAPTER III

LOCATION, TOPOGRAPHY, DRAINAGE & COMMUNICATION

3.1. General

It is to mention that two separate Geological reports are prepared for Pakri Barwadih Block. The former is Geological Report for Pakri Barwadih and the later is Geological Report for Pakri Barwadih A. In the present Mining Plan i.e. Revised Mining Plan of Pakri Barwadih (Rev-1), reference to Pakri Barwdih Mine/Block/Project includes Pakri Barwadih-A (PB-NW), Pakri Barwdih West and Pakri Barwadih East.

3.2. Location of Block

Pakri-Barwadih coal block is located in Hazaribagh district of Jharkhand State. The block is located in the north-eastern part of North-Karanpura Coalfield, bounded by:

a. Longitudes 85°09'19"E to 85°15'00"E

b. Latitude 23°51'30"N to 23°55'40"N

It is covered by the Survey of India Toposheet no. **73E/1** (R.F. 1: 50000) and special sheets no. ***21, 23 & 24*** on R.F. 1:10000.

The entire block falls in the Hazaribagh district of Jharkhand State. The Hazaribagh – Khelari metal Road passes through the eastern part of the block touching Barkagaon and Tandwa Villages. The nearest township is Hazaribagh, located at a distance of about 24 kms from Barkagaon which is in the southern part of the block.Location is given at Fig-3.1.

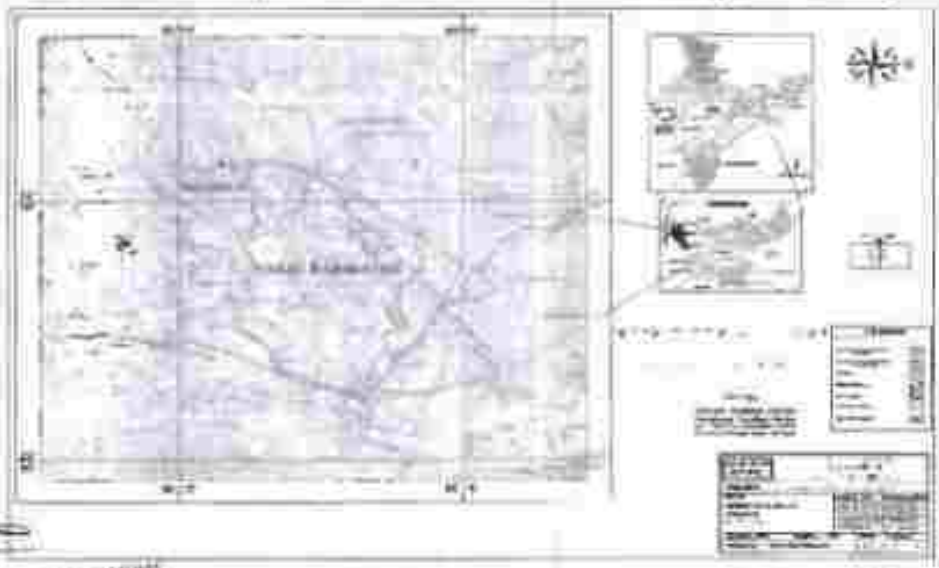


Fig-3.1.

3.3. Communication

The block is well connected to nearest town city and state capital through all-weather road. Brief description on the accessibility of the block is given below:

i **Rail Link:** The nearest rail stations are Ranchi Road and Chitarpur on the Gomoh Barkakana – Dehri-on-Sone loop lines of SE Railway both around 70- 75 km from the block.

ii **Road Link:** The Block is well connected to the district headquarter Hazaribagh via Barkagaon at a distance of 40 km by all-weather road. The block is located at a distance of 10 km from Barkagaon Township. The Hazaribagh - Khelari State Highway passes 5 Km south of the block via Barkagaon and Tandwa village. The area is also connected to Patratu Township by all-weather road via Urimari.

a A PWD Road exists between Hazaribagh & Barkagaon, Tandwa – Khalari. Our approach will be take-off from this road and will go from eastern to western part of the property. The total approach will be about 10 km from take-off point to mine entry point.

b This PWD road passes through the east quarry of the quarriable block, which shall be shifted to other route only after exhaustion of West Quarry but before mining operation of East quarry, is started.

iii **Air Link:** Nearest Airport is at Ranchi which is about 130 km from the block.

3.4. North Karnapura Coalfields

Pakri Barwadih Coal Block falls in the North Karnapura Coalfield under CCL command area of CIL. The North Karanpura Coalfield (1230 km2) as the name implies forms the northern part of the main Karanpura basin. It is separated from the South Karanpura CF by a east west elongated metamorphic patch. However, they are interconnected near Bachra and Hindegir village by a narrow strip of Talcher formation. It is bounded by Latitude 23039' and 23060' (N) and 840 46' and 850 24' (E) longitude spreads over to Hazaribagh, Ranchi, Chatra and Palamau districts with Pakri-Barwadih block located in ,as mentioned above , Hazaribagh district.

The North-Karanpura coalfield lies close to Hazaribagh town, the head quarter of the district bearing the same name. Barkagaon, an important locality in the north-eastern part of the coalfield is also located on the southern fringe of the Pakri-Barwadih Block under review. This locality is connected from Hazaribagh by an all-weather 24 Km metalled road which has been extended along the northern & western part of the coalfield touching Kerendari and Tandwa. This can serve as a useful road link from Pakri-Barwadih to Tandwa where proposed STPS of NTPC is located. This metalled road passes through the East sector of Pakri-Barwadih and divides the sector into two parts. The

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India
PAWAN DEV JAMTA
Deputy General Manager (Commercial)
NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Ranchi- Chandwa – Chatra – Barhi highway passess close to the western margin of the Coalfield. Several places in the western and southern parts of the field are connected with Ranchi- Lohardaga and Ranchi – Daltanganj State Highway. The eastern Railway Branch Line from Dhanbad to Gomoh and Dehri-on-Sone runs along the southern part of the coalfield. This railway line also passes through Chandrapur, Bokaro & Patratu Thermal Power Stations. However the western, northern and eastern part of the coalfield is presently devoid of railway lines. The coalfield is likely to be connected by a new railway network under initial phases of execution from Gomoh Daltanganj railway line of SE Rly.

The location plan of the area have beein shown in drg no 7010-199-POM-J-001 and area covering buffer zone of 10 km radius all around the allocated block is presented at key plan in drg no. 7010-199-POM-J-002

3.5. Block area

Total area of the Parkri Barwadih Coal Block is 46.95 Sq. Km. Subsequently to the allocation of the block NTPC has applied for acquisition of land u/s 4(i) of CBA Act (1957) for mining of above mentioned coal bearing area together with an additional area of 2.99 sq km on the north- eastern side of allocated block for accommodating infrastructure facilities. Braekup of Mine Area is given in **Table 3.1.**

Table 3.1

Breakup of Mine Area

Sl. No.	Particulars of Area	Area in (Sq. Km.)
1.	Explored (PB E & PB W)	39.43
2.	Explored (PB N W)	4.85
3.	Coal bearing area (1+2)	44.28
4.	Additional Acquisition for OB Dump	2.66
	Total (3+4)	46.95

3.6. Climate & Rainfall

3.6.1 Temperature:

The area experiences a subtropical climate with very hot and dry in summer and well-distributed rainfall in the southwest monsoon season. Annual mean rainfall recorded at IMD's Observatory, Hazaribagh is 1277.90 mm and maximum temperature is 43 °C in summer and minimum temperature is 3 °C in winter season. It has three distinguishable seasons:

i) The summer season starts from mid - March to mid – June. The temperatures varies from 16.5°C to 41.1°C

ii) The rainy season starts from the mid June to September with an average annual mean rainfall of 1277.90 mm with the total number of rainy days being 67.

iii) Winter season commences from the November to February. The temperature varies from 4°C to 31°C.

3.6.2 Relative Humidity:

Since the climate is dry & hot, the relative humidity is generally moderate. The annual mean daily humidity is 61%.

3.6.3 Rainfall:

Pakri-Barwadih block being a virgin block has no rain gauging station. The nearest station is at Barkagaon Block office where daily rainfall is recorded. The records available in the block office from year 1979 to 2004 shows that the maximum annual rainfall of 2037.50 mm was recorded in the year 1994 and minimum was 656.20 mm in the year 2002. The average annual rainfall is about 1182 mm.The rainfall does not show any cyclic occurrences and shows wide and erratic variations. The average annual rainfall recorded at Barkagaon office for the year 1979 to 2004 ranged between 656.2 to 2037.50mm (Mean is 1181.5mm). The monsoon season is spread over the months from June to September. Rainfall records at IMD Hazaribagh is given at **Table 3.2**

Table 3.2

Rainfall records at IMD Hazaribagh.

Month	Monthly total (mm)	No. of rainy days	Maximum Rainfall in 24 hrs.(in mm) with date	
January	2.5	1.7	68.1	6-1945
February	16.2	1.4	63.5	23-1927
March	18.4	1.7	44.2	20-1946
April	17.0	1.4	60.5	22-1925
May	43.4	2.9	84.1	27-1887
June	177.1	9.2	249.2	24-1911
July	310.0	16.2	221.7	6-1953

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340 (15)/2009-CPAM
Ministry of Govt. Govt. of India

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी सी लिमिटेड/NTPC LIMITED
Sector-24, Noida-201301 (U.P.)

August	320.1	16.2	180.1	17-1968
September	260.9	11.6	167.4	28-1963
October	80.6	4.1	149.4	24-1963
November	5.5	0.4	95.0	8-1924
December	5.2	0.4	39.4	13-1885
No of years data	29			

3.6.4 Vegetation:

At one time, the area, especially the hills and plateaus were covered with dense forest comprising mainly Sal, Mahua etc. With progressive increase of population and felling of trees, the forest areas have now reduced to isolated patches mostly occupying the upper parts of the hill. Other trees that grow in the area are Palash, Khair, Bair, Amla, Simul, Sisiu, Karanj etc.

About 50% of area of the notth west part of the block is covered by forest. The plantation of orchards of mango, mahua, kaju and other common trees are found scattered in the block. However, forest comprising mainly of Sal, Assan and Kusum trees occupies the southern, north-eastern to eastern part of the block. The important wild lives found are bear fox, Jackal, Hyena, Monkey and rabbits.

3.7. Topography

Topographically the area is rather hilly and undulating in northern and north-west part of the block. The central and eastern part of the block is characterized by more or less flat terrain with gentle undulations. The ground in general slopes towards south. In western part the maximum elevation of 501 m is noticed in northern part near borehole CNPB- 109 and minimum elevation of 402 m in southern part near borehole CMKPB –32. In the central part the maximum elevation of 459 m is noticed in the northern part near borehole CMKP –30 and the minimum elevation of 396 m near borehole CMKP-30 in south –eastern part. In eastern part the maximum elevation of 480 m is noticed in north-eastern part near borehole CNPB –55 and minimum elevation of 405 m near borehole CMKPB –12 in southern part.

The north western part of the block exhibits undulating topography with general slope towards south. Due to presence of numerous ravines in the eastern half of the block, the topography is highly rugged, rendering the area unapproachable. In general the elevation of ground varies from 430m to 480m above mean sea level.

SANJIV KUMAR SINGH
Authorised Signatory
For NTPC LIMITED
(ER-I) PATNA
SANJIV KUMAR/PAWAN DEV JAMTA
Chief Manager (Commercial)
Deputy General Manager (Commercial)
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

3.8. Drainage

The drainage of the block is controlled by Sunrah river, which finally joins to Badmahi river, which is one of the major tributary of Damodar river flowing in south central part of coalfield. Three major nallahs flowing north to south are Khora, Dumuhani and Hardara (Pakawa). Besides these nallahs of the block, there are many small streams & stream lets, which discharge their load into these major nallahs. All the nallahs of the block are seasonal and become dry during summer.

The shape of north western part of the block is triangular. On two sides, block boundary is defined by tributaries of Khora Nala, which discharges its load Lathorwa Nala. The drainage of the block is controlled by Khora Nala, which flows into Lathorwa/Khora Nala which in-turn joins to Haharo Nadi, which is one of the major tributary of Damodar River flowing in south central part of coalfield. Besides, Khora nala of the block, there are many small Streams & streamlet, which discharge their load into this major nala. All the nalas of the block are seasonal and become dry during summers. (Plate No.5).

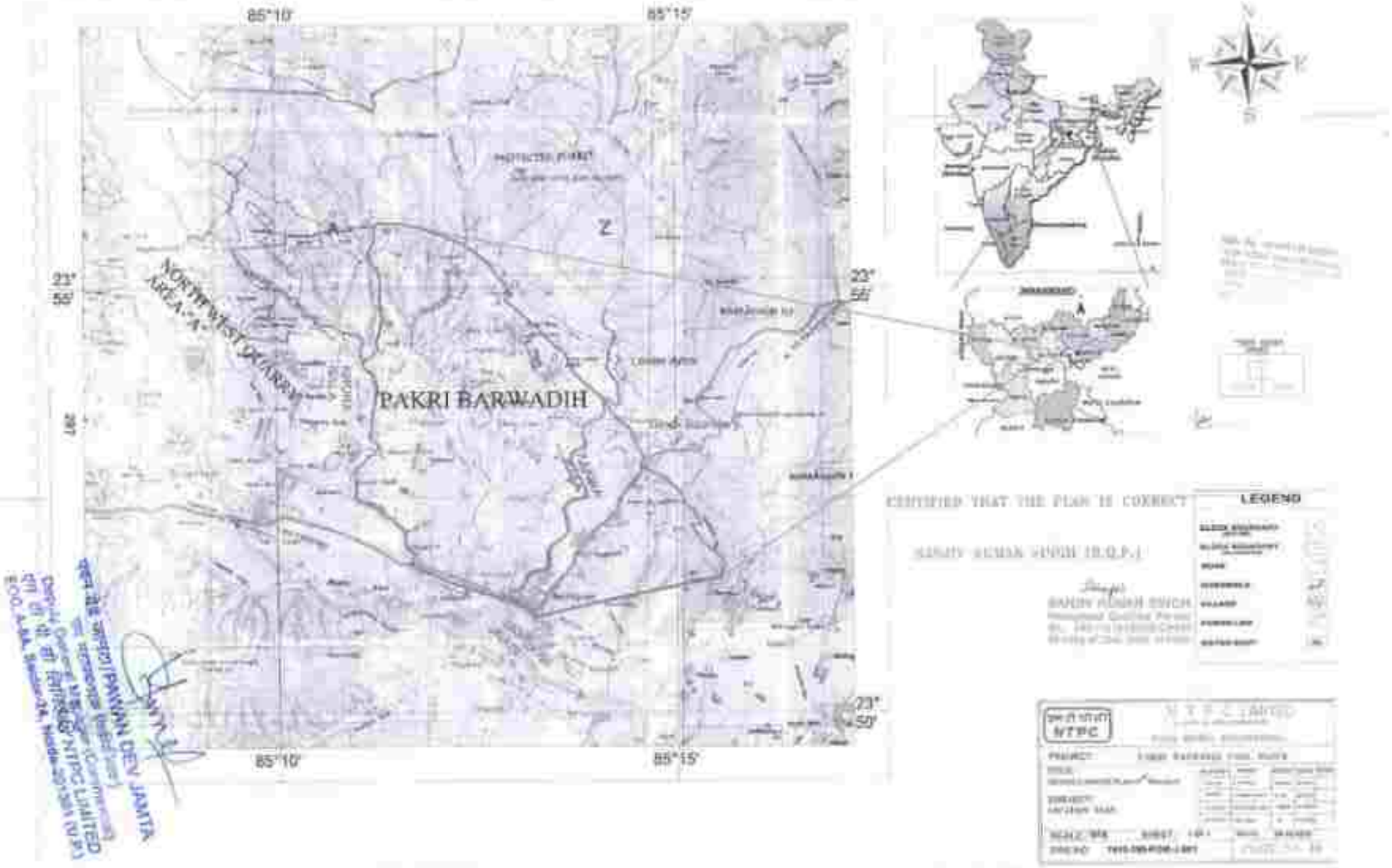
None of the nalas/tributaries were planned for diversion except straightening of Khora Nala – B at NW part of the block. During mining, adequate clearance from high bank of nala are left on the active pit side, to prevent seepage/flooding of water to mine. Embankments are also planned to prevent inrush of water during rainy season or otherwise.

3.9. Population

The entire coal-field is low to moderately populated except Barkagaon, Kerendari & Tandwa, which are the most populated villages in the northern & Western part of the coal-field.

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340 (15)/2009-CPAM
Ministry of Coal, Govt. of India


85°10'
85°15'
23° 55'
23° 50'
PAKRI BARWADIH
NORTH WEST QUARRY AREA "A"
CERTIFIED THAT THE PLAN IS CORRECT
LEGEND
NTPC



पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्य)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

CHAPTER IV

EXPLORATION, GEOLOGY, SEAM SEQUENCE, COAL QUALITY AND RESERVES

SANJIV KUMAR SINGH
Designated Certified Person
PAWAN DEV JAMTA
NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

पवन देव जनता/PAWAN DEV JAMTA
उप महाप्रबन्धक (परिसंपत्ति)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

CHAPTER-IV

GEOLOGY

4.1 General

4.1.1 Pakri Barwadih (PB) coal block is located in the north eastern part of North Karanpura Coal Field bounded by Longitudes 85° 09'19" to 85° 15' 00" E and Latitude 23° 51' 30" to 23° 55' 40" N and covered by the Survey of India Topo sheet No73 E/1 (RF 1:50000) and special Sheets No 21,23 & 24 (RF 1:10000). The Block is located in the state of Jharkhand and is around 120-130 km from the state Capital Ranchi.

4.1.2 As per the Guidelines issued by MoC for preparation of Mining Plan for the coal blocks issued vide Letter No. 34011/(48)/2009-CPAM dated 15.07.2015, MoC directed to enclose additional item:

"Certificate from CMPDI that the Geological Coordinates (Longitude and Latitude) used in preparation of Mining Plan in accordance with the Vesting Order and Geological Coordinates covered by the Mining Plan do not encroach into any other/adjacent coal block"

Pakri Barwadih coal mining block was allocated to NTPC through Government Dispensation route in the year 2004. The block was retained with NTPC since Honourable Supreme Court had not de-allocated the same. Hence certificate from CMPDI is not applicable in this context. However boundary certified by CMPDI for notification under CBA Act is attached as **Annexure-XIX**.

4.2 Geological Report

Two Geological Report were prepared for this Block. NTPC has procured Geological Report (GR) of the block from CMPDIL vide letter No DG/693(A)/095-96 dated 04/05/2005 (Copy of letter enclosed as **Annexure-XI**). It pertains to the exploration of Western and Eastern part of the block. In compliance to the commitment to MoC, Geological Report of PB North West (Sector-A) was prepared by NTPC through MECL, which pertains to the exploration of North Western part of the block. The brief is as following:

A Memorandum of Understanding (MoU) was signed between Mineral Exploration Corporation Limited (MECL) and NTPC Ltd, on 12.06.2006 for conducting detailed exploration for coal in Pakri Barwadih North West

SANJIV KUMAR SINGH
Recognised Qualified Person
Regn. No. ...(15)/2009-CPAM
Ministry of Coal, Govt. of India

Regd. Office: NTPC/PANKAJ GUPTA
Executive (Additional)
Deputy General Manager (Commercial)
Flat No. 01, Tower-1 / NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

(Sector-A) Coal Block. The exploration work was awarded to MECL as per Letter of Award (LOA) No.CS-7010-708-9CY-LOA dated 14.07.2006.

MECL has carried out a detailed exploration for coal and allied geological activities including sampling and chemical analysis etc. in the said block based on the relevant standards.

Exploratory work carried out by MECL intermittently rather than continuous due to local problems. Villagers nearby hindered the work which contributed delay in completion of exploration work. Geological report was submitted to NTPC on 30.10.2012. (Copy of letter enclosed as **Annexure-XIA**)

The above two Geological Reports have been considered for preparation of present Mining Plan "Revised Mining Plan (1st Revision) Pakri Barwadih Coal Block".

4.2.1. Connection with National Grid

Pakri Barwadih Coal Block is connected with the national grid.

4.2.2. Payments of Exploration Cost vis a vis cost of Geological Report

NTPC has paid full amount for the cost of the above mentioned Exploration/Geological Report raised by GSI, CMPDIL and MECL.

MoC vide letter No. 13016/29/2003/CA-I (Part) dated 18.08.2015 confirmed that no additional amount is due with NTPC. (Copy of letters enclosed as **Annexure-XII**)

4.3 Details of exploration

4.3.1 Core / Non-Core drilling

Drilling activity is carried out in two different phases for Pakri Barwadih west, east and Pakri Barwadih North West (Sector-A) block. A total of 196 boreholes have been drilled by GSI & CMPDI in Pakri Barwadih Block whereas in Pakri Barwadih North West MECL has drilled 33 boreholes and CMPDIL has drilled 3 borehole. In total 232 boreholes have been drilled in the whole block. The boreholes drilled during different phases in Pakri Barwadih Block as per break up given in **Table 4.1**. The seam wise borehole intersections and density is given in **Table 4.2**. The Location Plan of these boreholes have been shown **Plate No.7**.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340 (15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Deputy General Manager (Commercial)
NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Table 4.1

Phase wise Agency wise exploration status

Agency/ Type	Period of Drilling	Drilling	
		No. of Boreholes	Meterage
1. GSI / Regional	1961 to 1971	KB-1 to 26 (26 BHs)	8177.23
2. CMPDI a) Promotional (Semi-regional)	Dec. '1999 to April , 2001	*CMKPB-1 to 38 (38 BHs)	10482.00
b) Non-CIL (detail drilling)	Jan., 2003 to June 2004	CNPB- 1 to 135 (135 BHS)	24943.60
Sub-Total (1 & 2)		**199**	43602.83
3. MECL for PB North West (Sector-A)	2006 to 2012	MNPB-1 to MNPB-1 (33 BHs)	4282.70
Total (1, 2 & 3)		**232**	**47885.53**

**CMKPB 24,25 & 38 are falling in PB (NW) quarry*

4.3.2 Seam wise borehole intersections and density

Table-4.2

Seam wise borehole intersections and density

Seam/Parting	No. of Boreholes considered	Seam/Parting	No. of Boreholes considered
Seam-V Top	55	Seam-II MB	12
Seam-V Bottom	58	Seam-II Comb.	3+1
Seam-V Comb.	29	Seam-I Top	100
Seam-IV A	47	Seam-I Middle	97
Seam-IV Top	26	Seam-I TM	6
Seam-IV Bottom	26	Seam-I Bottom	72
Seam-IV Comb.	63	Seam-I MB	20
Seam-III Top	56	Seam-I Comb.	3+10

RQP No. 34011/ (15)/2009-CPAM dated 27.09.10

SANJIV KUMAR SINGH
Recognised Qualified Person
Ministry of Coal, Govt. of India

पवन देव जगत/PAWAN DEV JAGTA
Dep. General Manager (Commercial)
NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Seam-III Bottom	56	Local	90
Seam-III Comb.	31	Seam-K5	57+1
Seam-II Top	70	Seam-K4	58+1
Seam-II Middle	62	Seam-K3	56
Seam-II TM	46+10	Seam-K2	60
Seam-II Bottom	96+11	Seam-K1	75

4.3.3 Requirement of Further Exploration with time frame

4.3.3.1. Exploratory drilling for no coal zone proving

The infrastructure facilities and external waste dumping areas Dump-A, B and D) as shown in **Surface Master Plan (Plate No-5)** have been selected beyond the incrop of Seam-I Bottom. However, there is no specific mention of no-coal zone in the area. Therefore, before start of OB Dumping if required or insisted by Standing Committee the drilling for negative proving shall be carried out.

Period	No. of BH (Tentative)	Location	Estimated meterage	Target
Pre-construction (before start of OB dumping if required)	30	Infrastructure sites and external waste dump A & B	3000	Negative proving of workable coal seams
Pre-construction	10	Infrastructure sites and external waste dump D	1000	Negative proving of workable coal seams

4.3.3.2. Exploratory drilling for production support

In order to delineate the in-crop of seam I & II and to support the production requirement as per stage plan, phase-wise exploration through core drilling in different sectors of the bock have been proposed **Table 4.3**

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34C - /(15)/2009-CPAM
Ministry of Coal, Govt. of India

Table 4.3
Production support boreholes

Period	of BH	Location	timated meterage	Target
Pre-construction (2 years)	15	Bet. F14 & Seam IB incrop Bet. F13 & F14 Bet F8 & F9	750	To delineate incrop of seam IB & IIB To support 1st & 2nd year production
1st year	15	Bet. F12 & F13 Bet. F10 & F11 Bet F7 & F8	500	To support 2nd & 3rd year production
2nd year	15	Bet. F12 & F13 Bet. F11 & F12 Bet F9 & F10	500	To support 3rd & 4th year production
3rd year	12	Bet. F8 & F10 Bet. F7 & F8	500	To support 4th & 5th year production
4th year	12	Bet. F5 & F6 Bet. F7 & F8	200	To support 5th to 6th year production

4.3.3.3. Exploration for area beyond 300m depth line

The southern portion of the Pakri Barwadih Block covering around 12 sq. km. area has also not been explored in details and only " indicated" category reserves of the order of 733.199 Mt are provisionally assessed by CMPDI. Therefore a phase wise exploration programme has been proposed to convert the indicated reserved into proved category and to develop underground mine plan.Phasewise exploration program is given in **Table 4.3 A**.

Table-4.3 A
Phase wise exploration program

Period	No. of BH	Location	Estimated meterage	Target
1st year	25	Area beyond 300 m depth line	14000	To convert the indicated reserves into proved category and to develop underground mine plan
2nd year	25		14000	
3rd year	25		14500	
4th year	25		14500	
Total			55000-60000	

SANJIV KUMAR SINGH
Recognised Competent Person
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Chief Manager (Environment)
NTPC LIMITED
Sector-24, Noida 201301 (U.P.)

4.4 Regional Geological set up of the area

The North Karanpura Coalfield forms a prominent east-west trending valley between Hazaribagh plateau in the north and Ranchi plateau in the south. The Aswa Pahar in the south-east separates the North and South Karanpura Coalfields by east west elongated metamorphic patch. However, they are interconnected near Bachra and Hindegir village by a narrow tongue of Talcher outcrops. On the eastern side, North Karanpura Coalfield is separated from the West Bokaro Coalfield by a narrow stretch of metamorphic rocks having several outliers of Talcher formation. In the west, it is separated by a stretch of about 20 Km wide metamorphic belt from Auranga Coalfield.

The generalized Stratigraphic Sequence of North Karanpura is given at **Table 4.4**.

Table 4.4
Geological Succession of North Karanpura Coalfield

Period	Group	Sub-group	Formation	Lithology
Recent	-	-	Alluvium	Detrital and alluvial soil and sub soil
Jurassic	-	Equivalent to Rajmahal Trap	Igneous Intrusive	Dolerite and Mica Peridotite
Triassic	Upper Gondwana		Mahadeva	Massive coarse to conglomeratic feldspathic ferruginous sandstone with shale intercalation
Upper Permian to Lower	Lower Gondwana		Panchet	Yellowish to white coarse grained sandstone, red, chocolate colour clastic clays.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340 /(15)/2009-CPAM
Ministry of Coal, Govt. of India
PAWAN DEV JAMTA
Deputy General Manager (Commercial)
NTPC LIMITED
Sector-24, Noida-201301 (U.P.)

Triassic				In the upper part, yellowish friable sandstone whereas lower part is greenish yellow
Upper Permian		Damuda	Raniganj	Fine to medium grained quartzo-feldspathic and quartzitic sandstone often micaceous and matured, interbanded shale and sandstone, carbonaceous shale and thin coal seam.
			Barren Measures	Dark Shale, sandy micaceous shale with sideritic interbanded shale and sandstones
			Barakar	Conglomerrate, sandstone, shale, intercalation siltstone and shale, carbonaceous shale, fireclay, coal seams.
			Karharbari	Dark mottled sandstone occasional shale bands, fireclay, chocolate coloured clays and coal seams
Permo-Carbonifer-ous			Talchir	Rikba plants beds, boulders, conglomerate, varvites, sandstone, tilloids and tillites.
——————Unconformity——————				
Pre-Cambrian			Metamorphics	Granite, gneiss, pegmatite, phylittes, micashist and limestone, chromite bearing rocks, amphibolites and quartzite.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. SAC/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/ (15)/2009-CPAM dated 27.09.10

PAWAN DEV JAMTA
Deputy General Manager (Geomatics)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Out of 1230 sq. Km area of North Karanpura coalfield the coal bearing formations viz; Karharbari, Barakar and Raniganj crop-out over an area of about 500 sq. Km. The Karharbari formation is well developed in south-central and eastern part of the coalfield. It contains only one coal seam which occurs often in two to three sections. It comprises of very coarse grained gritty sandstone and at times has silicified sandstone, hard strata difficult to negotiate during drilling operation. The Barakar formation contains a number of coal seams and contributes the major bulk of reserves in this coalfield. Five persistent coal seams have been established in the coalfield. The total coal column is more or less around 30 to 40 meter in the major part of coalfield. Raniganj formation contains three or four impersistent coal seams which are generally shaly in nature.

4.4.1 Local Geology

a. PB Block (East and West):

The Pakri-Barwadih block comprises of Talchir, Karharbari, Barakar, Barren Measures and Raniganj Formations belonging to Damudas, a Sub-Group of Lower Gondwana.Talchir Formation rest directly over the Pre-Cambrains. The Karharbaris and Barkars are the main coal bearing formations in the block. Stratigraphic succession of the formations in the block is given in **Table 4.5.**

Table 4.5
Stratigraphic Sequence of Pakri-Barwadih Block

Period	Group	Sub-group	Formation	Thickness Range	Lithology
Recent	Lower Gondwana	Damuda	Alluvium	3.50 – 25.85	Detrital and Alluvial soil & subsoil
Upper Permian			Raniganj	1.50 – 324.50	Fine to medium grained micaceous sandstone, interbanded shale and sandstone,

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34C (15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/ (15)/2009-CPAM dated 27.09.10

पवन देव जागरण/PAWAN DEV JAMTA
Dep. – General Manager (Commercial)
NTPC LIMITED
Sector-24, Noida-201301 (U.P.)

					Carbonaceous shale & thin uneconomic Coal seams.
Upper Permian			Barren Measures	5.14 – 353.00	Dark shale, sandy shale & interbanded shale & sandstone.
			Barakar	12.50 - 268.85	Fine to coarse grained sandstone, Shale, Conglomerate, Carbonaceous shale & Coal seams.
			Karharbari	10.00 – 81.60	Medium to coarse grained sandstone, Shale, silicified quartzite rock & thin coal seams.
Permo Carboniferous	--	--	Talcher	0.80 – 13.50	Green coloured shale, Boulder & Congolomerate
----------Unconformity----------					
Pre-Cambrian	--	--	Metamorphics	--	Granite, Gneisses & Quartzites

There are a few small outliers of Barakar/ Kaharbari/ Talchir Formations occurring over the Pre-Cambrian Basements immediately north of the Pakri-Barwadih Block.

b. PB Block (North West):

However, in PB North West (sector-A) area small exposures of sand stone and coal seam are found near the bank of Khora Nala in the western margin of the block. At places Karharbari Formation also rest directly over metamorphic. The geological

SANJIV KUMAR SINGH
Empowered Qualified Person
Ministry of Coal, Govt. of India

पवन देव जमाल/PAWAN DEV JAMTA
Deputy General Manager (Corporation)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

succession established in the PB North West area (sector-A) of the block from sub-surface exploration data is given in **Table 4.6**.

TABLE 4.6
STRATIGRAPHIC SUCCESSION OF PB NW (SECTOR-A) AREA OF COAL BLOCK

Period	Group	Sub-Group	Formation (Thickness)	Lithology
Recent & Sub-Recent			Alluvium (3.00 to 23.00m)	Soil & Sub-soil
Unconformity				
Middle Permian			Barren Measure (44.00 – 138.70m)	Predominantly shale with intercalation of sandstone and shale and arenaceous shale
Lower Permian	Lower Gondwana	amuda	Barakar (19.07m – 137.10m)	Fine to coarse grained sand-stones, shale, carbonaceous shale and coal seams.
			Karharbari (5.14m to 91.52m)	Fine to coarse grained sandstone with bands of shale and coal seams
Permo - Carboniferous			Talchir 0.65m to 4.64m)	Green coloured shale, boulders and conglomerates
Unconformity				
Precambrian			Metamorphics (2.80-11.00m)	Gniesses, granites and quartzites

4.4.2 Structure

a. Structure of PB (East and West)

Structurally the North Karanpura coalfield is a major broad syncline with its axis trending east to west and plunging towards east. The Pakri-Barwadih is Located in the NE part of northern limb. The northern boundary of the block

...IV KUMAR SINGH
...Qualified Person
...(15)/2009-CPAM
...of Coal, Govt. of India

RQP No. 34011/ (15)/2009-CPAM dated 27.09.10.

Dep. General Manager (Commercial)
NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

appears to have normal contacts with Talcher and basement metamorphics. The southern boundary of the Eastern sector is marked by a major fault of about 250m throw towards south. This has resulted in bringing the Barakar formations including coal seams in juxtaposition with Raniganj formation.

The block is generally traversed by NW-SE/SE-EW trending faults with northerly throw causing step like configuration. The strike of the strata is generally NW-SE and the dip of the strata varies from 10^0 to 20^0 (1 in 3 to 1 in 5.5) but generally 10^0 to 15^0 towards south-west.

Nineteen faults with throw ranging up to 170m have been deciphered based on exploration carried out in the block. The throw of most of the faults ranges from 10-40m.

It may be mentioned here that the geological structure of the block is primarily based on CMPDI GR in general and in particular in the north and north central part of West Quarry i.e. north of fault F10 –F10, giving due cognizance to the long field association of CMPDI during exploration.

The fault F5 which is of distinctive nature has been considered as the boundary for division of the block into West & East Quarry. The details of faults are given in **Table 4.7**.

Table 4.7

Fault Details of PB West & East Block

Fault	Trend	Dip	Throw	Remarks
F1 -F1	East- West	Northerly	20-60m	Omission of (i)Seam-II in KB-16 (ii) Seam-II Top to Seam-IV in CMKPB 29 (iii) Reduction in parting between Seam-II MT & Middle in CMKPB-12

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340 (15)/2009-CPAM
Ministry of Coal, Govt. of India

F2 -F2	NW-SE	North-easterly	10-100m	Omission of (i) Seam-I in CMKPB 10 (ii) Seam-II Bottom & V in CMKPB 35 (iii) Seam-III Top & Bottom in CMKPB-12
F3 –F3	NW-SE& Curvilinear fault trending NW-SE and gradually swerving to N-S	Northerly	80–170 m	Intersected in (i) CNPB – 107 (Omission of Seam-I Bottom to Seam-V Top). (ii) Based on Stratum Contours.
F4 –F4	NW-SE dies out near borehole CNPB- 52	North–East	0 –20m	Omission of (i) Seam-I Bottom to Seam-II Bottom in CNPB – 49, (ii) Seam-IVA & IV in CNPB- 15 (iii) Seam-II Top & (iv) Seam-III in CNPB-21& Seam-IV in CNPB –64.
F5 -F5	NW-SE to swerving to E-W	North-Easterly/ Northerly	40–140 m	Omission of (i) Seam-I & II in CNPB-92, (ii) Seam-III Bottom in CNPB-93, (iii) Seam-III in CNPB-95, (iv) Seam-III Bottom to V top in KB-11 (v) Seam –II to V top in CNPB-16 (vi) Based on Stratum contour.
F6 -F6	NW-SE abuts against fault F5-F5 near BHs CNPB-93.	North Easterly	10 – 40 m	(i) CNPB-39 Omission of Seam-II Top, Middle & Bottom), (ii) CNPB- 29 Omission of Seam-I Top to I Bottom (iii) Based on Stratum contour.
F7 -F7	Almost E-W Abuts against fault F6-F6 near BH CNPB-28	Northerly	20-80 m	(i) Omission of Seam-III in boreholes CNPB-28, 20& 68. (ii) CNPB – 61 Omission of Seam-II Top to Seam-I Bottom (iii) CNPB-25 Omission of seam floor of Seam-II MB to Seam-I Bottom (iv) CNPB – 29 Omission of Seam-I Top to Seam-I Bottom.
F8 –F8	NW-SE	North Easterly	10-20m	(i) Reduction in parting between Seam II Top & III in CNPB–

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/ (15)/2009-CPAM dated 27.09.10.

Page IV - 12

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्य)
Dep. General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
ECC A 11, Sector-24, Noida-201301 (U.P.)

				94&KB- 17. (ii) Omission of Seam-IVA &Seam-IV in CNPB – 40. (iii) Seam –III Top to Seam-IV A in CNPB – 38 (iv) Seam- III Bottom in CNPB-32 &(v) Seam-II in CMKPB-11.
F9 - F9	E–W, Abuts against fault F-8 near BH CNPB -30	Northerly	20 – 40m	Based on stratum contour plan
F10 – F10	NW – SE curvilinear fault trending almost E-W	Northerly	20 – 60m	Omission of (i) Seam-II Bottom to IVA in CNPB-78 (ii) Based on stratum contour.
F11– F11	Curvilinear fault Trending almost E-W	Northerly	20 – 60m	(i) Based on Stratum Contour plan (ii) Omission of Seam-I in boreholes CNPB – 83 & CNPB – 135.
F12– F12	Curvilinear fault Trending almost E-W	Northerly	20m	(i) Intersected in Borehole CNPB – 80 where Seam- I Top & Middle is faulted (ii) Based on Stratum Contour Plan
F13- F13	E – W	Northerly	20 - 40 m	(i) Roof of Seam – II Top & Middle Combined is faulted in borehole CMKPB- 5. (ii) Based on Stratum Contour Plan.
F14- F14	E-W	Northerly	40-60m	(i) Roof of Seam II Top & Middle combined is faulted in borehole CMKPB-5. (ii) Based on stratum contour plan.
F15– F15	Limits the southern boundary of Eastern Sector of the block Major fault trending almost E-W.	Southerly	More than 200 m throw	Raniganj and Barren Measure formations are in juxtaposition with Barakar
NEW FAULTS				

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340, (15)/2009-CPAM
Ministry of Coal, Govt. of India

313

RAVI KR. SINGH/PAWAN DEV ARORA
Dy. General Manager (Env.-I/c)
For and on behalf of
Date :- General Manager / HTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

FN-16	WNW-ESE	NEN	20M	1) Redelineation of incrop of seam 1 2)Cross Section 3. Revision of Floor contours of seam I
FN-17	NW-SE tion in the East Sector within the quarriable zone	NE	5M	1 &2 same as above 3. Revision of Floor Continuer plan 4. Geological Cross Section additional.
FN-18	NW-SE Location in the Central sector	NE	Amount of throw could not be establis hed	Geological Cross Section
FN –19	WNW-ESE	NNE		Geological Cross Section

b. Structure of PB (North West)

Pakri Barwadih North West (Sector-A) area of the Block, the general strike of the formation in the block is almost east-west. The local swing in the strike at places is due to rolling dip. The strata are dipping at 10° to 12° southerly.

The block is traversed by 8 numbers of faults. Among these, 3 faults are varying from 0 m to 50 m. Fault F1 is the major fault varying in through from 160m to 180m. This fault runs approximately along southern to western boundary of the block. The trend of the fault is NW-SE and except faults F7 & F8, all are extending in metamorphic terrain. The description of faults is presented in the **Table 4.8**.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जामवा/PAWAN DEV JAMWA
उप महाप्रबंधक (वाणिज्य)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
FOC A-8A, Sector-24, Noida-201301 (U.P.)

Table 4.8

DESCRIPTION OF FAULTS INTERPRETED IN PB NW (Sector-A)

FAULT NO.	LOCATION	NATURE	TREND & THROW (m)	BH. NO.	DEPTH (m.)	EVIDENCES
F_1 – F_1	Located near southern to western boundary	Oblique fault	NW-SE & 160 – 180m	MNPB - 25	274.50	• Seam K-1 to K-5 & Local -L faulted in borehole MNPB-25 • Interpreted based on level difference of seam on either side of fault • Metamorphics has come in juxtaposition of Gondwana in north western part of the block • Equivalent to fault F_3 of western section of Pakri-Barwadih block
F_2 – F_2	Located in Central part of the block	Oblique fault	NW-SE & 0 – 40	MNPB-4	170.00	• Seam K-1 & K-2 faulted in MNPB-4 • Interpreted based on level difference of seam on either side of fault
F_3 – F_3	Located in Central part of the block	Oblique fault	NW-SE & 30 – 55	MNPB-7 MNPB-26	29.00 316.60	• Seam K2 faulted in MNPB-7 • Seam K-1 and contact of Karharbari and metamorphic faulted in borehole MNPB-26 • Interpreted based on level difference of seam on either side of fault • Equivalent to F_5

RQP No. 34011/ (15)/2009-CPAM dated 27.09.10.

SANJIV KUMAR SINGH
Designated Qualified Person
Govt. Govt. of India

315

PAWAN DEV JAMTA
General Manager (Commercial)
NTPC LIMITED
Sector-24, Noida-201301 (U.P.)

FAULT NO.	LOCATION	NATURE	TREND & THROW (m)	BH. NO.	DEPTH (m.)	EVIDENCES
						of western sector of Pakri-Barwadih
F_4 – F_8	Located in north-eastern part of the block	Oblique fault	NW-SE& 10 – 50	MNPB-11	87.00	• Seam K-1 to K-4 faulted in Borehole MNPB-11 • Interpreted based on • level difference of seam • on either side of fault • Equivalent to F_{10} of western sector of Pakri Barwadih
F_3 – F_5	Located in north - eastern corner of the block	Oblique fault	NW-SE & 10	-	-	Extending from western sector of Pakri-Barwadih (equivalent to fault F_{14})
F_7 – F_2	Located in the eastern part of the block	Oblique fault	NW-SE & 0 – 10	MNPB-24	205	Seam K-3 faulted in borehole MNPB-24 equivalent to fault F_8 of Pakri-Barwadih Block
F_6 - F_3	Located in the eastern part of the block	Oblique fault	NW-SE & 0 – 5	MNPB-5 MNPB-10	100 28	• Seam K-2 faulted • Seam K-5 faulted

4.4.3 Stratigraphic Sequences

Stratigraphic Sequences of PB West & East

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340 /(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जागरा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्य)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
ECC A-8A, Sector-24, Noida-201301 (U.P.)

The Barakar formation contains five persistent coal seams numbered Seam-I to Seam-V in ascending order. Out of these, Seam-I & Seam-II have spitted into 3 sections, whereas Seam-III, Seam-IV and Seam-V spitted in two sections each. The split sections are designated as top, middle & bottom. The split sections of the seams merge to form composite seams designated for example as II TM for II Top & Middle combined and MB for Middle and Bottom combined.

The Karharbari formations underlies the Barakar formation and contain 5 thin non-workable coal seams namely Seam-K1 to Seam-K5. The average thickness of these coal seams is less than 1 m.

The summarized sequence and details of coal seams in the block are given in **Table 4.9** and seams have been shown in geological plan **(Plate No. 7)**

Table 4.9
Sequence & details of coal seams

Seam/Parting	Thickness range (m)		General thickness (m)	No of BH considered
	Minimum	Maximum		
Seam-V Top	0.39 (CNPB – 34)	3.91 (CMKPB 13)	1.50	55
Parting	0.80 (CNPB – 32)	12.41 (CMKPB 13)		
Seam -V Bottom	0.18 (CNPB –113)	2.20 (CMKPB 29)	1.00	58
Seam-V Comb	0.73 (CMKPB 37)	6.00 (CMKPB 11)	1.50	19
Parting	2.18 (CNPB– 95)	29.11 (CNPB – 64)		
Seam-IV A	0.20 (CNPB – 95)	3.13 (CNPB –105)	1.25	47
Parting	0.64	12.37		

SANJIV KUMAR SINGH RQP No. 34011/ (15)/2009-CPAM dated 27.09.10
Recognised Qualified Person
Ministry of Coal, Govt. of I...

PAWAN DEV JAMTA
Deputy General Manager (Commercial)
NTPC LIMITED
Sector-24, Noida-201301 (U.P.)

Seam/Parting	Thickness range (m)		General	No of BH
	(CMKPB –4)	(CMKPB – 30)		
Seam-IV Top	0.90 (CNPB – 26)	7.88 (CNPB – 68)	3.00	26
Parting	0.90 (CNPB – 105)	17.59 (CNPB – 53)		
Seam-IV Bottom	0.65 (CNPB – 86)	7.64 (CNPB –134)	2.50	26
Seam-IV Comb	2.10 (CNPB – 131)	14.61 (CNPB – 144)	8.00	53
Parting	0.98 (MNPB – 25)	44.31 (CMKPB 37)		
Seam-III Top	0.46 (CMKPB 12)	3.75 (CMKPB 10)	1.50	56
Parting	0.94 (CMKPB 15)	28.88 (CMKPB 10)		
Seam-III Bottom	0.16 (CNPB – 85)	3.10 (CNPB – 22)	1.25	56
Seam-III Comb	0.46 (CNPB – 7)	3.74 (CNPB – 37)	1.50	31
Parting	1.97 (CNPB – 48)	45.97 (CNPB-91)		
Seam-II Top	0.25 (CMKPB –4)	15.46 (CMKPB 10)	8.00	60
Parting	Nil	31.93 (CNPB-31)		
Seam-II Middle	2.98 (CMKPB 30)	20.04 (CNPB – 34)	8.00	56
Seam-II TM	10.28	20.26	12.00	39

DANJAY KUMAR SINGH
Designated Qualified Person
No. 349 / (15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/ (15)/2009-CPAM dated 27.09.10.

Page IV - 18

PAWAN DEV JAMTA
General Manager (Commercial)
NTPC LIMITED
Sector-24, Noida-201301 (U.P.)

Seam/Parting	Thickness range (m)		General	No of BH
	(CNPB– 17)	(MNPB-22)		
Parting	0.77 (CNPB –131)	10.75 (CNPB-72)		-
Seam-II Bottom	1.40 (CNPB – 38)	14.56 (CMKPB 10)	7.00	80
Seam-II MB	13.85 (CMKPB 29)	22.51 (CNPB-30)	16.00	12
Seam-II Comb	17.70 (CMKPB–8)	28.67 (CNPB-32)		3
Seam-I Top	0.21 (CMKPB 12)	11.36 (CNPB-124)	2.50	81
Parting	1.00 (CNPB –110)	18.77 (CNPB-91)		
Seam-I Middle	0.42 (CNPB – 106)	10.13 (CNPB-110)	2.50	90
Seam-I TM	3.85 (CNPB – 90)	11.95 (CNPB-125)		6
Parting	0.85 (CNPB – 44)	23.62 (CNPB-72)		
Seam-I Bottom	0.20 (CNPB –108)	8.10 (CNPB-134)	2.00	64
Seam-I MB	4.70 (MNPB –11)	11.88 (CMKPB-25)		6
Seam-I Comb	7.96 (CNPB – 78)	13.76 (CMKPB-35)		3
Parting	1.80 (CNPB – 72)	35.75 (CNPB-73)		
Local	0.06	5.56	1.50	72

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011 (15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जानकी/PAWAN DEV JANITA
वरिष्ठ महाप्रबंधक (कार्यालय)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
ECC A-5A, Sector-24, Noida-201301 (U.P.)

Seam/Parting	Thickness range (m)		General	No of BH
	(MNPB – 38)	(CMKPB-5)		
Parting	4.72 (CNPB – 69)	78.89 (CNPB-88)		
Seam-K5	0.08 (MNPB –38)	2.22 (CNPB-79)	0.75	39
Parting	2.27 (CNPB – 80)	81.25 (CNPB-124)		
Seam-K4	0.09 (CNPB –124)	3.04 (CNPB-90)	0.75	34
Parting	1.20 (CNPB –106)	29.75 (CMKPB-36)		
Seam-K3	0.08 (CNPB – 90)	2.46 (CNPB-116)	1.25	33
Parting	0.50 (CNPB –110)	33.40 (CMKPB-20)		
Seam-K2	0.05 (CNPB –124)	4.80 (CNPB-123)	1.25	36
Parting	1.04 (CNPB –101)	48.00 (CNPB-128)		
Seam –K1	0.10 (CNPB – 52)	6.45 (CNPB-105)	1.50	50

Note: (i) TM stands for Top & Middle Merged.
(ii) MB stands for Middle & Bottom Merged.

The details of the thickness of different coal seams, partings and OB is given in **Table 4.10 & Table 4.11**.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34C (15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जानता/PAWAN DEV JANTA
वरिष्ठ महाप्रबंधक (वाणिज्यिक)
Sr. General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
SCC A-84, Sector-24, Noida-201301 (U.P.)

Table 4.10

Thickness of Coal Seams & Partings in PB (West East)

Particulars	West Quarry		East Quarry	
	Max	Min	Max	Min
Over Burden	251.55	10.39	266.81	6
Seam-V Top	3.24	0.36	3.91	0.84
Parting	7.19	0.8	4.89	0.82
Seam-V Bottom	3	0.29	2.04	0.21
Parting	24.97	2.16	19.95	5.88
Seam-IV Top	7.88	0.9	6.57	2.34
Parting	6.76	0.9	17.59	16.38
Seam-IV Bottom	7.64	0.65	6.56	0.87
Parting	44.31	5.1	22.93	5.31
Seam-III Top	3.75	0.23	3.22	0.49
Parting	24.75	1.1	16.94	0.94
Seam-III Bottom	3.1	0.16	2.41	0.21
Parting	45.97	3.39	33.72	1.97
Seam-II Top	12.7	0.74	11.22	0.25
Parting	31.93	1.2	28.12	1.34
Seam-II Middle	20.04	1.75	10.98	3.5
Parting	6.28	0	5.8	0.97
Seam-II Bottom	11.4	1.4	14.02	1.99
Parting	30.43	6.21	27.94	4.74
Seam-I Top	11.36	0.45	4.95	0.42
Parting	18.77	1	14.73	1.6
Seam-I Middle	10.13	0.42	6.71	0.87
Parting	16.35	0.95	18.7	0.85
Seam-I Bottom	8.1	0.2	4.8	0.25

Table 4.11

Thickness of Coal Seams & Partings in PB (North West)

Sl. No.	Seam /Parting	Min.	Max.
1	V COMB	3.24	5.9
2	Parting	3.72	27.16
3	IV COMB	5.15	10.04
4	Parting	0.98	30.55

SANJIV KUMAR SINGH
Recognised Qualified Person
Reg. No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/ (15)/2009-CPAM dated 27.09.10

पवन देव जनमेजय/PAWAN DEV JAMAITA
उप महाप्रबंधक (खनिज)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

Sl. No.	Seam /Parting	Min.	Max.
5	II TOP	6.96	10.61
6	Parting	1.09	5.12
7	II MID	7.17	11.68
8	Parting	0	0
9	II T+M	15.97	20.26
10	Parting	1.4	24.22
11	II BOT	2.85	6.3
12	Parting	5.89	15
13	I TOP	0.42	3.79
14	Parting	0.52	4.51
15	I MID	1.15	8.73
16	Parting	0.17	4.19
17	I BOT	1.01	4.17
18	Parting	0	0
19	I M+B	4.7	11.88
20	Parting	16.8	27.68
21	LOCAL(L)	0.06	2.35
22	Parting	16.39	29.67
23	K-5	0.08	1.32
24	Parting	4.74	12.65
25	K-4	0.28	1.74
26	Parting	4.4	9.85
27	K-3	0.45	1.96
28	Parting	8.45	19.58
29	K-2	0.06	2.99
30	Parting	1.95	13.84
31	K-1	1.19	4.68

4.4.3.1 General characteristics of Lithological units (coal seams/ parting/ overburden)

(i) The Seam-II and its splits are the most potential seams in the block both from resource and grade of coal but seam II Top & Middle is found as coalesced seam in the eastern part of the block i.e. PB North-West(sector-A) area.

(ii) Seam-I is highly discontinuous and occur mostly in patches. Seam I Bottom and I Middle is found as combined seam in the eastern part of the block.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 342 (15)/2009-CPAM
Ministry of Coal, Govt. of India

प्रबन्ध देव जामता/PAWAN DEV JAMTA
उप महाप्रबन्धक (कार्यालय)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

(iii) In Pakri Barwadih block all Barakar seams of the block are highly inter banded and inferior in nature except Karharbari seams. Where as Karaharbari formation are well developed in the PB North West (sector-A) area except in few small patches. The Barakar coal seams (seam I to V) are medium to high ash, non-coking bituminous type. The moisture and ash of these coals normally ranges between 3% to 5% and 25% to 45% respectively on inclusion of all dirt bands less than 1m in thickness.

(iv) Overall proximate analysis on 60% RH and 40°C has been carried out for selected boreholes to determine Moisture, Ash and Volatile Matter (VM) on samples excluding carbonaceous shale & all other dirt bands (BCS) and including dirt bands up to 30 cm (I_{30}) and including dirt bands up to 1m (I_{100}) thickness. However all non-combustibles dirt bands such as Grey Shale, Arenaceous Shale, Sandstone samples more than 5 cm have been excluded for estimations of quality and reserves in all cases.

(v) In the boreholes where seam overall proximate analysis has not been determined, Ash & Moisture have been calculated by weighted average method from band by band data. Useful Heat Value (UHV) of coal has been calculated by using the formula 8900-138 x (A%+M %) for determination of grade as per present standard of commercial coal grading system.

(vi) The other special test such as Ultimate Analysis, Ash Analysis, Ash Fusion Range, Petrographic Analysis, Mineralogical Study and Selective Reactivity test have been carried out to ascertain different industrial properties of coal in case of selected seams/sample.

(vii) The Partings of the coal seams are comprises of sandstone, alternate shale & sandstone, shale, carbonaceous shale, etc. The bulk of the OB rocks comprise of sandstones and shale and their intermediate varieties. The soil and weathered rock varies 6 to 24 m thick but generally varies from 6 - 18m.

4.5 Seam wise Quality Parameters of PB Block

The generalized range of quality of coal including dirt bands is given in **Table-4.12.**

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340 / (15)/2005-CPAM
Ministry of Coal, Govt. of India

Rajeev Gupta
Deputy General Manager (Commercial)
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Table 4.12
Range of Quality details of Coal seams, PB (West East)

Seam	M%	ASH%	VM%	UHV (K.Cal/Kg.)	Grade (Based on UHV)	CV (K.Cal/Kg.)	Grade (Based on GCV)	CV (Dmmf) (K.Cal/Kg.)
Seam-V Top	3.5-6.8	22.4-52.2	17.8-22.3	1144-4880	D-G (E-F)	3040-5466	G7-G15	6932-7765
Seam - V Bottom	3.9-7.3	15.7-48.7	20.1-21.9	1648-6015	B-G (E-F)	3409-6321	G4-G13	7012-8361
Seam-V Comb	3.4-7.1	17.9-51.8	18.5-24.70	1236-5472	C-Ungr (E-F)	3136-5858	G5-G14	7054-7794
Seam-IV A	3.4-5.2	25.2-49.9	18.5-19.6	1510-4750	D-G (E-F)	3329-5475	G7-G14	7167-7830
Seam-IV Top	3.1-5.8	31.3-43.6	20.4-23.7	2255-3969	E-G (E-F)	3788-4999	G8-G12	7306-7778
Seam-IV Bottom	3.7-5.3	21.6-50.2	18.2-23.8	1626-5225	C-G (D-F)	3438-6070	G5-G13	7307-8191
Seam-IV Comb	2.6-6.7	31.2-48.2	17.9-27.1	1641-3863	E-G (E-F)	3000-4832	G9-G15	5714-7825

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 246 (D-8)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जागरा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
PPC, A-8A, Sector-24, Noida-201301 (U.P.)

Seam	M%	ASH%	VM%	UHV (K.Cal/Kg.)	Grade (Based on UHV)	CV (K.Cal/Kg.)	Grade (Based on GCV)	CV (Dmmf) (K.Cal/Kg.)
Seam-III Top	2.6-5.5	17.2-51.2	18.7-25.7	1365-5767	B-G (C-E)	3200-6136	G4-G14	7048-8672
Seam-III Bottom	2.8-5.7	16.6-50.0	22.7-27.1	1616-5818	B-G (D-E)	3447-6160	G4-G13	7299-7924
Seam-III Comb	3.4-5.8	25.9-37.9	-	3021-5055	D-F (E)	4037-5529	G6-G11	7264-7919
Seam-II Top	2.7-6.7	23.3-52.7	18.0-25.3	1158-5059	C-G (D-F)	3130-5724	G6-G14	7129-7931
Seam-II Middle	2.6-6.9	23.1-43.2	20.7-28.5	2621-5132	C-F (D-F)	4520-5789	G6-G10	7635-8107
Seam-II TM	2.6-5.8	27.2-45.9	21.9-26.2	2206-4650	D-E	3854-5550	G6-G12	7485-8809
Seam-II Bottom	1.6-5.6	26.9-47.2	21.2-26.3	2082-5183	C-G(D-F)	3736-5578	G6-G12	7223-8142
Seam-II MB	2.3-4.0	29.7-35.3	23.3-24.0	3711-4178	D-E	4820-5214	G7-G9	7652-7681

SANJIV KUMAR SINGH
Recognised Qualified Person
Regd. No. 345 /(15)/2009-CPAM
Ministry of Coal, Govt. of India

FOR M/S SRIJAN KARYAN PVT. LTD.
AUTHORISED SIGNATORY
DIRECTOR
Corporate Mining Consultants
ESC, A-8A, Sector-24, Noida-201301 (U.P.)

Seam	M%	ASH%	VM%	UHV (K.Cal/Kg.)	Grade (Based on UHV)	CV (K.Cal/Kg.)	Grade (Based on GCV)	CV (Dmmf) (K.Cal/Kg.)
Seam-II Comb	3.8-4.6	28.9-36.6	22.9-23.0	3324-4398	D-F (E-F)	4620-5292	G7-G9	7751-8057
Seam-I Top	1.5-5.7	18.7-51.1	20.8-29.6	1368-5657	B-G (D-F)	3525-6280	G4-G13	7435-8209
Seam-I Middle	1.8-5.3	18.6-50.8	18.0-27.7	1599-5602	C-G (D-F)	3400-5459	G7-G13	7365-7977
Seam-I TM	2.9-4.3	27.2-46.0	20.5	2151-4544	D-G (E-F)	3903-5363	G7-G12	7440-7836
Seam-I Bottom	1.5-4.1	20.1-53.9	18.3-27.6	1172-5208	C-Ungr (E-F)	2491-6071	G5-G17	7217-8006
Seam-I MB	2.8-5.2	33.5-43.8	-	2459-3642	E-F	4016-4716	G9-G11	7531-7727
Seam-I Comb	2.9-3.6	30.9-49.4	20.1	1682-4128	E-G (F-G)	3484-5114	G8-G13	7303-7818
Local	2.3-5.7	15.7-52.8	17.6-26.5	1213-5984	B-G (E-G)	2867-6286	G4-G15	6945-7970
Seam-K5	2.5-5.8	8.0-49.9	-	1677-7603	A-G (C-E)	3502-6753	G2-G13	7301-8090

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 342 (15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जोगता/PAWAN DEV JAMTA
उप महाप्रबंधक (कॉर्पोरेट)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Seam	M%	ASH%	VM%	UHV (K.Cal/Kg.)	Grade (Based on UHV)	CV (K.Cal/Kg.)	Grade (Based on GCV)	CV (Dmmf) (K.Cal/Kg.)
Seam-K4	2.8-6.2	6.4-45.9	-	2116-7492	A-G (B-D)	3761-6963	G2-G12	7397-8117
Seam-K3	2.3-6.1	7.1-48.7	15.1-31.40	1820-7244	A-G (B-D)	3400-7145	G1-G13	6981-8154
Seam-K2	2.3-5.6	6.5-47.4	22.4	1996-7299	A-G (B-D)	3712-7056	G1-G12	7428-8128
Seam-K1	1.0-5.1	8.4-49.8	19.3-28.7	1773-7230	A-G (B-D)	3603-7213	G1-G13	7515-8254

Note: *(i) TM Stands for Top & Middle Merged.*
(ii) MB stands for Middle & Bottom Merged.

An exercise has been carried out to assess the coal reserves under D&E grade which together may give an overall ash of nearly 34% and that of F grade & inferior coals with higher ash content. It will be observed that the grade of coal seams generally range between D to G with average of E grade. The reserves in grade D & E constitute over 85% and grade F to G coal accounts for the balance 15% of the total quarriable reserves up to 100 m depth. The corresponding data for total reserves in grade D and E are nearly 70% in the depth range 100 to 300m. From the quality details as available, the reserves available in the block are suitable for power generation.

4.6 RESERVE ESTIMATION:

4.6.1 Reserve Estimation for Pakri Barwadih (West & East)

4.6.1.1 Methodology of Reserve Estimation

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 341 (15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Deputy General Manager (Commercial)
NTPC LIMITED
Sector-24, Noida-201301 (U.P.)

Reserves for all the potential coal seams of Barakar formation i.e. Seams I bottom – Seam V top except IV-A & Local Seams have been estimated by utilizing isochore of individual coal seams. In this isochore method, the areas between successive isochores were determined with the help of digital planimeter which has been multiplied with the average thickness of successive isochores to arrive at volume of chore. The specific gravity of 1.28 + 1% of ash% has been considered for estimation of tonnage of different coal seams.

4.6.1.2 Seam-wise Grade-wise Geological Reserve:

Grade-wise reserves were also computed by measuring area between iso-grad (UHV contours).

4.6.1.3 Category wise Net geological reserves

The reserves so estimated have been categorized as Proved and Indicated reserves based on density of boreholes. The reserves of Southern and South-Western part of the block have been placed under Indicated category, whereas the entire reserve of north – eastern part of the block is placed under Proved category. Further these reserves are also classified under UNFC guidelines considering the economic, feasibility and geological axis.

Summarized details of coal reserves are furnished in **Table 4.13** and Summary of Coal Reserve in Million tonnes is given in **Table 4.14**

Table 4.13
Seam-wise Grade-wise Geological Reserve

Seam Name	Area Sq. Km.	Grades							
		B	C	D	E	F	G	Ungr.	Total
PROVED RESERVES									
Area less than 100m Depth									
EASTERN SECTOR									
Seam-V Top	0.128	0.128				0.004	0.328		
Seam-V Bot	0.214	0.214				0.465			
Seam-	0.841	0.841				4.883	2.386	0.077	

SANJIV KUMAR SINGH
Competent Certified Person
Regn. No. 11/01/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMWAL
Deputy General Manager (Environment)
NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Seam Name	Area Sq. Km.	Grades							
		B	C	D	E	F	G	Ungr.	Total
IV Comb									
Seam-III Top	0.438	0.438			0.874	0.423	0.052		
Seam-III Comb	0.067	0.067				0.192			
Seam-II Top	1.644	1.644			0.549	2.340	3.466		
Seam-II Mid	1.580	1.580			9.877	6.295			
Seam-II Bot	1.642	1.642			0.388	10.443	1.603		
Seam-II MB	0.063	0.063				1.415			
Seam-I Top	1.771	1.771		2.253	1.406	0.019			
Seam-I Mid	2.551	2.551				1.502	2.964	5.290	
Seam-I Bot	0.782	0.782			0.613	1.227	0.877	1.380	
Total				**2.253**	**13.701**	**29.208**	**11.678**	**6.747**	
Area Between 100m & 300m Depth									
Seam-V Top	1.575			0.044	0.047	5.304	0.206		5.601
Seam-V Bot	1.497				2.534	0.746			3.280
Seam-V Comb	0.170				0.579				0.579
Seam-IV Comb	1.590				6.095	6.332	0.276		12.703
Seam-III Top	1.687		1.091	3.632	0.529	0.131			5.383
Seam-IIIBot	0.171					0.312			0.312
Seam-III Comb	0.097				0.419				0.419
Seam-II Top	1.256		0.337	0.588	1.801	3.408	0.143		6.277

SANJIV KUMAR SINGH RQP No. 34011/ (15)/2005-CPAM dated 27.09.10
Recognised Qualified Person
No. 34011/ (15)/2005-CPAM
Ministry of Coal, Govt. of India
NTPC LIMITED
Page IV - 29

Seam Name	Area Sq. Km.	Grades							
		B	C	D	E	F	G	Ungr.	Total
Seam-II Mid	1.642			16.659	3.020		-		19.679
Seam-II Bot	1.558			0.392	11.643	0.080			12.115
Seam-II MB	0.015				0.336				0.336
Seam-I Top	1.465	0.103	0.595	1.773	0.537	0.079			3.087
Seam-I Mid	1.726					2.732	3.927		6.659
Seam-I Bot	1.130					1.151	2.067		3.218
Total		**0.103**	**2.023**	**23.088**	**27.540**	**20.275**	**6.619**		**79.648**
Total for EASTERN SECTOR		**0.103**	**4.276**	**36.769**	**56.748**	**31.953**	**13.366**		**143.235**
CENTRAL SECTOR									
Area less than 100m Depth									
Seam-V Top	0.013					0.038	0.012		0.050
Seam-IV Top	0.172					0.776			0.776
Seam-IV Bot	0.178			0.234	0.270				0.504
Seam-IV Comb	0.099				0.565				0.565
Seam-III Top	0.382			0.080	0.376	0.236			0.692
Seam-III Bot	0.441			0.592	0.502				1.094
Seam-II Top	0.660			1.720	1.529				3.249
Seam-II Mid	0.900			2.249	10.939				13.188
Seam-IITM	0.761			5.227	5.379				10.606
Seam-II Bot	1.615			0.487	6.953	3.094	0.159		10.693
Seam-II MB	0.240				5.738				5.738

SUDHIR KUMAR SINGH
Recognised Qualified Person
No. 349 /(15)/2009-CPAM
Ministry of Coal, Govt. of India

SHRI SRINIVASAN DEEPANTA
Director (Technical)
NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Seam Name	Area Sq. Km.	Grades							
		B	C	D	E	F	G	Ungr.	Total
Seam-II MB	0.240				5.738				5.738
Seam-I Top	1.053			0.339	0.776	0.588	0.691		2.394
Seam-I Mid	1.746			0.013	0.329	1.200	4.010		5.543
Seam-I TM	0.149					0.287	2.154		2.441
Seam-I Bot	0.552			0.071	0.267	0.511	0.373		1.322
Seam-I Comb	0.024						0.038		0.038
Total				**11.012**	**33.614**	**6.830**	**7.437**		**58.893**
Area Between 100m & 300m Depth									
Seam-V Top	2.056			0.443	1.023	3.187	1.939		6.592
Seam-V Bot	2.092			0.074	0.153	3.036	1.664		4.927
Seam-V Comb	0.995		0.209	0.271	0.605	0.783	0.591		2.459
Seam-IV Top	0.639				0.706	1.914	0.154		2.774
Seam-IV Bot	0.764			0.254	0.334	0.538	0.334		1.460
Seam-IV Comb	3.199				1.233	26.630	1.723		29.586
Seam-III Top	3.090		0.350	2.127	2.859	0.196			5.526
Seam-III Bot	1.180		0.550	1.070	0.869				2.489
Seam-III Comb	0.240			0.168		0.675			0.843
Seam-II Top	3.070		0.071	2.574	4.221	1.203	0.292		8.361
Seam-II Mid	3.927		1.475	43.298	6.393				51.166
Seam-IITM	0.941			12.451	5.465				17.916
Seam-II	3.592			1.210	21.87	6.638	0.164		29.885

SANJIV KUMAR SINGH
Recognised Qualified Person
Regd. No. /(15)/2009-CPAM
Ministry of Coal, Govt. of India

Deputy General Manager (Commercial)
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Seam Name	Area Sq. Km.	Grades							
		B	C	D	E	F	G	Ungr.	Total
Bot					3				
Seam-II MB	0.487				11.580				11.580
Seam-II Comb	0.199				5.551				5.551
Seam-I Top	2.649			0.595	1.350	2.236	1.174		5.355
Seam-I Mid	3.378				0.095	3.796	3.726		7.617
Seam-I TM	0.004						0.066		0.066
Seam-I Bot	1.157					1.436	2.108		3.544
Seam-I Comb	0.231						2.675		2.675
Total			2.655	64.535	64.310	52.262	16.610		200.372
Area beyond 300m Depth									
Seam-V Top	0.519					1.483	0.608		2.091
Seam-V Bot	0.648				0.125	2.085			2.210
Seam-V Comb	0.445		0.221	0.266	0.285	0.275			1.047
Seam-IV Top	0.222					0.580			0.580
Seam-IV Bot	0.222					0.623			0.623
Seam-IV Comb	1.587					16.216	0.594		16.810
Seam-III Top	1.053			0.149	1.357	0.271	0.137		1.914
Seam-III Bot	0.051			0.081	0.018				0.099
Seam-II Top	1.485			0.592	1.836	1.229	1.151	0.254	5.062
Seam-II Mid	1.490			10.994	9.362				20.356
Seam-II Bot	1.482			0.216	4.545	5.434			10.195

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340 (15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/ (15)/2009-CPAM dated 27.09.10.

पवन देव जाम्ता/PAWAN DEV JAMTA
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EDC A-8A, Sector-24, Noida-201301 (U.P.)

Seam-II Comb	0.045				1.256				1.256
Seam-I Top	0.588			0.022	0.079	0.843	0.634		1.578
Seam-I Mid	0.808					1.339	0.862		2.201
Seam-I Bot	0.572					0.893	0.428		1.321
Total			**0.221**	**12.320**	**18.863**	**31.271**	**4.414**	**0.254**	**67.343**
Total For CENTRAL SECTOR			**3.876**	**88.867**	**117.787**	**91.363**	**29.461**	**1.254**	**327.608**

WESTERN SECTOR									
Area less than 100m Depth									
Seam-III Top	0.507						1.068		1.068
Seam-III Bot	0.377				0.574	0.189			0.763
Seam-IITM	1.470			6.063	17.010				23.073
Seam-II Bot	1.661			0.374	4.048	3.912			8.334
Seam-I Top	1.710	0.485	1.192	1.023	1.775	0.669			5.144
Seam-I Mid	2.217		2.511	3.604	2.744	0.394			9.453
Seam-I Bot	1.242			0.714	2.235	1.965			4.914
Seam-I MB	1.018				7.782				7.782
Total		**0.485**	**3.703**	**11.978**	**36.168**	**7.129**	**1.068**		**60.531**
Area Between 100m & 300m Depth									
Seam-V Top	0.902				0.139	1.145	1.868		3.152
Seam-V Bot	0.387					0.939			0.939
Seam-V Comb	0.469				0.722	0.896			1.618
Seam-IV Top	1.195				0.665	7.551			8.236

SANJIV KUMAR SINGH RQP No. 34011/ (15)/2008-CPAM dated 27.09.10.

Seam-IV Bot	1.192			0.570	2.516	0.968	0.348		4.402
Seam-IV Comb	1.061				0.643	12.158	0.219		13.020
Seam-III Top	1.107		0.524	0.759	0.632	0.563	0.412		2.890
Seam-III Bot	0.188				0.409				0.409
Seam-III Comb	0.502			0.605	0.964				1.569
Seam-II Top	0.583			1.791	0.909				2.700
Seam-II Mid	0.901		0.224	8.190	2.801				11.215
Seam-IITM	1.906			4.047	25.424				29.471
Seam-II Bot	2.421			4.350	12.278	3.185	0.078		19.891
Seam-II Comb	0.098			2.285					2.285
Seam-I Top	2.034			0.970	1.881	2.226	0.428		5.505
Seam-I Mid	2.563			0.399	3.546	6.382			10.327
Seam-I Bot	1.802				0.666	3.732	0.903		5.301
Seam-I MB	0.623					7.076			7.076
Seam-I Comb	0.069					0.871			0.871
Total			**0.748**	**23.966**	**54.215**	**47.692**	**4.256**		**130.877**
Area beyond 300m Depth									
Seam-V Top	0.334			0.409	0.348	0.397			1.154
Seam-V Bot	0.229					0.465			0.465
Seam-V Comb	0.121				0.432				0.432
Seam-IV Top	0.465					3.392			3.392
Seam-IV Bot	0.465				0.967	0.815	0.216		1.998

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34C (15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/ (15)/2009-CPAM dated 27.09.10

PAWAN DEV JAMTA
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Seam-IV Comb	0.472				0.326	3.567			3.893
Seam-III Top	1.016		0.359	0.632	1.224	1.077	0.197		3.489
Seam-III Comb	0.581			1.281	0.275				1.556
Seam-II Top	0.030			0.138					0.138
Seam-II Mid	0.540			0.464	0.770				1.234
Seam-IITM	0.565			11.388	0.972				12.360
Seam-II Bot	0.474			0.660	3.429	0.299			4.388
Seam-I Top	0.436			0.025	0.416	0.828	0.214		1.483
Seam-I Mid	0.559				0.926	1.696			2.822
Seam-ITM	0.081				1.277				1.277
Seam I Bot	0.457					1.158	0.210		1.368
Total			**0.359**	**14.588**	**11.014**	**13.497**	**0.837**		**41.449**
Total for WESTERN SECTOR	**0.485**		**4.810**	**59.532**	**101.397**	**68.318**	**6.161**		**232.857**

INDICATED SECTOR									
EASTERN SECTOR									
Area Between 100m & 300m Depth									
Seam-V Top	0.704					2.661			2.661
Seam-V Bot	0.679			0.193	0.980	1.672			2.845
Seam-IV Top	0.240				1.913				1.913
Seam-IV Bot	0.300		1.682						1.682
Seam-IV Comb	0.748				5.183	2.638			7.776
Seam-III Top	0.752			0.972	0.551	0.079			1.602
Seam-III Bot	0.073					0.161			0.161

SANJIV KUMAR SINGH
Competent Qualified Person
RQP No. 34011/ (15)/2009-CPAM dated 27.08.10.
Ministry of Coal, Govt. of India

Seam-III Comb	0.118				0.499				0.499
Seam-II Top	1.116			0.554	4.438	0.103			5.095
Seam-II Bot	1.270				10.347	0.484		-	10.831
Seam-I Top	0.527		0.095	0.708	0.314				1.117
Seam-I Mid	0.727				0.116	2.252	0.408		2.778
Seam-I Bot	0.610					1.600	0.166		1.766
Total			**1.777**	**2.427**	**24.298**	**11.650**	**0.574**		**40.726**
Area beyond 300m Depth									
Seam-V Top	1.888					2.863	2.868		5.731
Seam-V Bot	2.213			0.716	2.126	2.254			5.096
Seam-IV Top	1.060				8.448				8.448
Seam-IV Bot	2.060		6.857						8.857
Seam-IV Comb	0.339				0.825	2.385			3.210
Seam-III Top	1.546			0.052	2.511	0.842			3.405
Seam-III Bot	0.823					2.080			2.080
Seam-II Top	3.694				10.653				10.653
Seam-II Mid	2.681			16.973	1.387				20.360
Seam-II Bot	2.685				15.257				15.257
Seam-I Top	1.387	0.221	1.363	1.281					2.865
Seam-I Mid	1.781					2.547	4.327		6.874
Seam-I Bot	1.290			0.013	0.116	1.751			1.880
Total		**0.221**	**10.220**	**21.035**	**41.323**	**14.722**	**7.195**		**94.716**
Total for EASTERN SECTOR		**0.221**	**11.997**	**23.462**	**65.621**	**26.372**	**7.769**		**135.442**
CENTRAL SECTOR									
Area Between 100m & 300m Depth									

Seam-V Top	0.258					0.575	0.167		0.742
Seam-V Bot	0.541					0.769	0.467		1.236
Seam-IV Top	0.317					2.605			2.605
Seam-IV Bot	0.317			0.084	0.568				0.652
IV Comb	1.495				9.419	6.147			15.557
III Top	0.326		0.105	0.172	0.461				0.738
Seam-III Bot	0.763				1.593				1.593
Seam-II Top	1.189				6.136	0.521	0.588		7.245
Seam-II Mid	0.632			7.401	0.670	0.075			8.146
Seam-II Bot	0.740			0.608	0.914	4.448			5.970
Seam-I Top	1.163			0.249	0.105	1.103	1.202		2.659
Seam-I Mid	1.462				0.834	1.899	0.360		3.093
Seam-I Bot	1.126						1.723	0.881	2.604
Total			**0.105**	**8.514**	**20.691**	**18.142**	**4.507**	**0.881**	**52.840**
Area beyond 300m Depth									
Seam-V Top	4.240					1.895	12.577	0.716	15.188
Seam-V Bot	4.670				3.262	5.778	0.196		9.235
Seam-IV Top	1.814				4.235	10.657			14.892
Seam-IV Bot	1.814			0.560	1.269	4.376	-		6.205
Seam-IV Comb	2.488				1.887	8.281			10.168
Seam-III Top	2.985		0.090	0.935	3.767	1.574			6.276
Seam-III Bot	1.991			0.746	2.502	0.948			4.196
Seam-II Top	3.676			3.266	19.307	0.757	0.540		23.870
Seam-II Mid	4.230			10.674	12.771	0.243			23.868
Seam-II Bot	4.212			0.196	31.639	1.685			33.530

SANJIV KUMAR SINGH
Recognised Qualified Person
Regn. No. 340 /(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Deputy General Manager (Commercial)
NTPC LIMITED
Sector-24, Noida-201301 (U.P.)

Seam-I Top	4.201			3.053	2.780	2.909	0.505		9.247
Seam-I Mid	4.390			1.620	3.541	4.853	1.474		6.327
Seam-I Bot	2.255					3.350	1.870		5.220
Total			**0.090**	**21.250**	**86.960**	**45.421**	**4.585**		**173.494**
Total for CENTRAL SECTOR			**0.195**	**29.764**	**107.651**	**65.286**	**8.250**		**226.334**

WESTERN SECTOR									
Area Between 100m & 300m Depth									
Seam-V Top	0.212					0.481			0.481
Seam-V Comb	0.025					0.067			0.067
Seam-IV Top	0.546					5.277			5.277
Seam-IV Bot	0.596			0.245	0.920	0.933			2.098
Seam-IV Comb	0.105					1.184			1.184
Seam-III Top	0.243				0.880				0.880
Seam-III Bot	0.191			0.386					0.000
Seam-II Top	0.348				2.483				2.483
Seam-II Mid	0.353		0.448	1.190	1.640				3.278
Seam-II Bot	0.095				0.599				0.599
Seam-I Top	0.366			0.261	0.690				0.951
Seam-I Mid	0.331					1.616			1.616
Seam-I Bot	0.285					0.559	0.095		0.654
Total			**0.448**	**2.082**	**7.212**	**10.117**	**0.095**		**19.954**
Area beyond 300m Depth									
Seam-V Top	8.271					5.151	15.534		20.685

SANJIV KUMAR SINGH
Scientist Directate Person
Min. Of. 10/5/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. DEMO/PAWAN PRIYA JAMTA
Dept. of General Manager (Commercial)
CMPDI (A Subsidiary of Coal India Limited)
Ranchi-834 004, Phone-2631369 (O.P.)

Seam-V Bot	5.773				4.862	11.884			16.746
Seam-V Comb	0.231				0.082	0.545			0.627
Seam-IV Top	2.761			-		26.186			26.186
Seam-IV Bot	4.761			2.036	0.732	12.704			15.472
Seam-IV Comb	4.027					45.394			45.394
Seam-III Top	7.436				15.798				15.798
Seam-III Bot	5.962			12.059					12.059
Seam-II Top	6.387			2.024	28.227	0.685	0.145		31.081
Seam-II Mid	6.501			11.878	24.473				36.351
Seam-II Bot	6.383			0.379	60.520				60.899
Seam-I Top	7.133			0.020	9.419	7.547	1.117		18.103
Seam-I Mid	7.004			0.581	5.969	25.844			32.394
Seam-I Bot	4.785					7.130	3.966		11.096
Seam-I Comb	0.527				8.598			-	8.598
Total				**28.077**	**158.680**	**143.050**	**20.762**		**351.469**

Total for WESTERN SECTOR		0.448	31.059	165.892	153.170	20.857		371.423
Total Proved	0.588	11.962	175.188	274.932	190.634	47.988	0.254	702.700
Total Indicated	0.221	12.640	84.285	339.164	244.825	36.676		733.199

SANJIV KUMAR SINGH
Manager (Mining)
Qualified Person
Regd. No. 341 (1)/2008-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Chief Manager (Environment)
Authorised Signatory
NTPC LIMITED
Pakri Barwadih-201301 (U.P.)

Table 4.14

Summary of Coal Reserve in Million tonnes

	Up to 300m depth	Beyond 300m depth	Total
Proved	594	109	703
Indicated	113	620	733
Total	707	729	1436

As per United Nations Framework Classification (UNFC) the reserves of Pakri-Barwadih can be classified as given in **Table 4.15**:

Table 4.15
Summary of Coal Reserve in Million tonnes

Million tonnes

UNFC Code	Type	Net Coal Reserves
111	Proved Reserves	703
211	Feasibility Mineral Reserves	636
222	Indicated Mineral Reserves	733
Total(111+222)		**1436**

4.6.2 RESERVES of PB North West Area

4.6.2.1 GENERAL

a. The procedure adopted for estimation of reserves of coal in Pakri Barwadih North West (sector-A) Coal Block is fundamentally based on the specific geological factors which determine the extent to which correlation, interpolation of data can be projected for building up a stratigraphic and structural model of the lay and disposition of the coal seams.

b. The structural model is depicted in various plates illustrating vertical cross sections and floor contour plans. The dimensional model with quality overalls are presented in the individual seam folio plans.

c. Detailed exploration in Pakri – Barwadih - A Coal Block, District Hazaribagh, Jharkhand has established the presence of 10 Nos. of seams, 5 each coal bearing horizons belonging to Barakar formations and Karharbari formation respectively. In ascending order these are seam K-1,K-2,K-3,K-4,K-5 in Kharharbari Formation and Local(L),I,II,IV & V in

Barakar Formation. Seam I splits into 3 sections viz. I Top, I Middle & I Bottom at places. Seam I Bottom and I Middle combined and form single seam namely I Bottom + Middle. Similarly Seam II also splits into 3 sections viz. II Top, II Middle and II Bottom. Seam II Top and II Middle coalesce to form single seam as II Top + II Middle in eastern part. In Pakri Barwadih North West (Sector-A) Coal Block Seam V & IV occur as a combined seam.

d. The dimensional and quality aspects of the seams viewed in the spatial framework with reference to the ground surface have indicated the potentiality for mining of Seams. Seam I - Bottom, I - Bottom + I - Middle, I - Middle, I-Top, II-Bottom, II Middle, II Top, II Top + Middle, IV Combined & V Combined together as the opencast proposition, while Seam-Local (L) & K-1 to K-5 can be mined by underground method. The entire quarriable area considering seam-I as base seam occurs in less than 300 m depth.

e. In borehole MNPB-13 located outside northern boundary, Seam K1 & K2 of Karharbari Formation are intersected at shallower depth. Besides, as per structure evolved, coal seams (K1 to K5) of Karharbari are likely to extend outside the northern boundary of the block in the northeastern area.

4.6.2.2 BASIC ASSUMPTIONS AND NORMS FOLLOWED

The following basic assumptions and norms have been taken into account for reserves calculation:

i) The isochores, isograde and the floor contours have been drawn by using MINEX software. It is assumed that the variation between any two points of observation is uniform and gradual.

ii) The underground reserves for the seams have been estimated based on I-30 thickness and quality of the seam. The I-30 thickness has been delineated including carbonaceous shale bands upto 0.30m and non-combustible bands upto 0.05m thickness. However, all non-combustible bands (NCB) of >0.05m thickness and carbonaceous bands of > 0.30 m have been excluded. The quarriable reserves have been estimated on the basis of I-100 thickness where the carbonaceous bands up to 1m thickness have been included in the seam and dirt bands more than 1 m. in thickness & obvious bands more than 0.05m in thickness have been excluded.

iii) The minimum workable thickness for the estimation of open cast and underground reserves of the seam has been considered as 1.00 m and 0.90m/1.20m respectively.

SANJIV KUMAR SINGH
Recognised Qualified Person
Ministry of Coal, Govt. of India

पवन देव जमाल/PAWAN DEV JAMTA
वरिष्ठ महाप्रबंधक (कार्यालय)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
ESC, A-8A, Sector-24, Noida-201301 (U.P.)

iv) In open cast reserves have been estimated at 1.00 m. thickness interval while in underground reserves have been estimated at 0.90m to 1.20m,1.20m to 1.50m, 1.50m to 1.80m, 1.80m to 2.00m, 2.00m to 2.50m, 2.50m to 3.00m, 3.00m to 3.50m, 3.50m to 5.00m, 5.00m to 10.00m thickness ranges and above 10.00m interval

v) The seams having UHV less than 1300 K/Cal/Kg have been considered as ungraded coal and have been marked in seam folio of respective seam. Ungraded coal zones have been included in over burden.

vi) Areas have been identified where the seams are not developed at all. The limits of these zones of non-development have been marked by taking half of the influence of the boreholes with positive seam intersection. These limits have also been considered to be the line of zero seam thickness and the workable limits were delineated accordingly. The areas falling within < 1.00 m thickness zone have not been considered for estimation of opencast reserves in case of underground reserves areas <0.90 m. / 1.20 m. have not been taken in account for reserves estimation.

vii) Line of split has been considered as 1.00m parting between two sections. Though in few cases the parting between two consecutive seams is less than 1m, seam is considered split as it occurs in small patches. Likewise if the seam is found coalesced in a small patch has been considered split.

viii) 40m barrier have been drawn from Khora Nala, its tributary and road.

ix) No barrier has been drawn along the kucha roads which connect the different parts of the block and small nalas.

x) The reserves have been estimated upto the trace of the floor of the incropping coal seams within the block.

xi) In incrop region while estimating the reserves, average of thickness has been considered.

xii) An overall deduction of 10% is applied to the gross tonnage from each seam to arrive at the net-in-situ reserves of coal to account for data gaps, wash out zones, abrupt change in seam thickness and the reserves have been rounded off to the nearest multiple of 1000 tonnes.

xiii) Heave zone of respective seam has excluded while estimating reserves.

xiv) All volumes of coal are estimated by isochore method.

SANJIV KUMAR SINGH
Recognised Qualified Person

4.6.2.3 ISOCHORE METHOD OF RESERVES ESTIMATION

a. In order to estimate the underground reserves the isochores of seam thickness excluding all dirt bands having thickness > 0.30 m and all non-combustible bands having thickness > 0.05m have been drawn while for estimation of open cast reserves the isochores have been drawn by excluding dirt band of more than 1 m. thickness and obvious bands of >0.05m thickness. Isograde for different grades have been drawn. The intersections of all these lines have generated large number of small areas each with a specific combination of seam parameters and imposed limitations.

b. The reserves of the seam have been calculated by using MINEX Software.

c. The standard formula which is universally accepted has been used for calculating the gross reserves :

R = A x Th x Sp. Gr.

Where,

R = Gross Reserves in thousand tones

A = Area in Sq.m.

Th = Thickness in metre

Sp. Gr. = Specific Gravity of coal for a specific grade

4.6.2.4 OVERBURDEN

a. **Nature of overburden:** Overburden consists predominantly sandstone with minor amount of shale, carbonaceous shale, ungraded coal and thin coal bands (< 1m in thickness). Besides, the overburden also includes soil, weathered rocks, obvious bands of any thickness and dirt bands of >1m thickness.

b. **Calculation of Overburden:** Overburden plan, total iso-patchytes plan, coal to overburden plan and iso-excavation plan on floor of Seam I Bottom and I Middle + Bottom have been prepared by using MINEX Software Programme. Total Volume has been calculated by software.

c. The volume of overburden has been calculated by applying the formula:

V = A x Th.

Where,

V = Volume of overburden in cubic meter.

A = Area in sq. m.

SANJIV KUMAR SINGH
Recognised Qualified Person
Ex. 342 /(15)/2009-CPAM
Ministry of Coal, Govt. of India

Th = Average thickness of iso-pachytes of overburden in m / iso-pachytes of parting.

4.6.2.5 COAL TO OVERBUREN RATIO

The coal packet from Seam-I Bottom to V Combined together forms the opencast potentiality. Near the incrop of Seam-I Bottom, coal to overburden ratio is more than 1:5. But after the inclusion of younger seams the ratio improves to 1:1. With the increase of quarry depth, ratio decreases to 1:4. In the major part of the block coal to overburden ration varies from 1:1 to 1:4.

4.6.2.6 STRIPPING RATIO

Stripping ratio is obtained after dividing total volume of overburden by tonnage of coal available in the same area. Volume of overburden and stripping ratio-wise and depth-wise reserves are given in **Table 4.16.**

TABLE 4.16
SECTOR WISE, DEPTH WISE RESERVES, OVERBURDEN AND STRIPPING RATIO

SECTOR	DEPTH (m)	RATIO	AREA (m^2)	REERVE ('000 TONNES)	VOLUME ('000 m^3)	STRIPPING RATIO (m^3/t)
	0 - 50	<1:1	3700	95	53.599	0.564
		1:1 – 1:2	6800	87	137.412	1.579
		1:2 – 1:3	6600	99	156.579	1.582
	Depth Total		**17100**	**281**	**347.590**	**1.237**
	50 - 100	<1:1	41400	1887	1194.583	0.633
		1:1 – 1:2	13600	835	675.558	0.809
	Depth Total		**55000**	**281**	**1870.141**	**0.687**
	100 - 150	1:1 – 1:2	18000	1162	1116.640	0.961
	Depth Total		**18000**	**1162**	**1116.640**	**0.961**
	Sector Total		**90100**	**4165**	**3334.371**	**0.801**
	0 - 50	<1:1	2600	38	16.072	0.423
		1:1 – 1:2	22400	348	505.270	1.452

SANJIV KUMAR SINGH
Recognised Qualified Person
No. SAC (15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/ (15)/2009-CPAM dated 27.09.10

PAWAN DEV JAMTA
Deputy General Manager (Commercial)
NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

SECTOR	DEPTH (m)	RATIO	AREA (m^2)	REERVE ('000 TONNES)	VOLUME ('000 m^3)	STRIPPING RATIO (m^3/t)
II		1:2 – 1:3	116800	1565	2962.689	1.893
		1:3 – 1:4	68300	870	1962.472	2.256
		1:4 – 1:5	15300	177	451.181	2.549
		>1:5	60800	319	1431.425	4.487
	Depth Total		**286200**	**3317**	**7329.109**	**2.210**
	50 - 100	<1:1	7700	239	208.826	0.874
		1:1 – 1:2	384300	17512	17461.220	0.997
		1:2 – 1:3	11500	382	433.705	1.135
		1:3 – 1:4	1300	62	51.524	0.831
	Depth Total		**404800**	**18195**	**18155.280**	**0.998**
	100 - 150	1:1 – 1:2	106400	5984	7723.825	1.291
		1:2 – 1:3	135700	7633	12041.560	1.578
	Depth Total		**242100**	**13617**	**19765.380**	**1.452**
	150 - 200	1:2 – 1:3	118800	7754	14392.920	1.856
		1:3 – 1:4	122600	7619	17445.210	2.290
	Depth Total		**241400**	**15373**	**31838.130**	**2.071**
	200 - 250	1:2 – 1:3	100	7	14.998	2.143
		1:3 – 1:4	80800	5755	13679.360	2.377
		1:4 – 1:5	9900	778	1897.294	2.439
	Depth Total		**90800**	**6540**	**15591.650**	**2.384**
	250 - 300	1:4 – 1:5	700	53	143.101	2.700
	Depth Total		**700**	**53**	**143.101**	**2.700**
	Sector Total		**1266000**	**57095**	**92822.650**	**1.626**
	0 - 50	1:1 –	400	2	5.370	2.685

SANJIV KUMAR SINGH
Recognised Qualified Person
Reg. No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/ (15)/2009-CPAM dated 27.09.10

PAWAN DEV JAMTA
Deputy General Manager (Coal Mining)
NTPC LIMITED
Sector-24, Noida-201301 (U.P.)

SECTOR	DEPTH (m)	RATIO	AREA (m^2)	REERVE ('000 TONNES)	VOLUME ('000 m^3)	STRIPPING RATIO (m^3/t)
III		1:2				
		1:2 – 1:3	21600	259	547.525	2.114
		1:3 – 1:4	28000	317	799.808	2.523
		1:4 – 1:5	17400	184	568.847	3.092
		>1:5	3900	27	113.712	4.212
	Depth Total		**71300**	**789**	**2035.262**	**2.580**
	50 - 100	<1:1	1100	69	30.245	0.438
		1:1 – 1:2	97700	3906	4805.997	1.230
		1:2 – 1:3	63600	2550	4001.816	1.569
		1:3 – 1:4	22900	569	1015.282	1.784
		1:4 – 1:5	14500	376	754.994	2.008
		>1:5	100	1	4.316	4.316
	Depth Total		**199900**	**7471**	**10612.650**	**1.421**
	100 - 150	1:1 – 1:2	18900	1096	1298.116	1.184
		1:2 – 1:3	174800	9133	15262.440	1.671
		1:3 – 1:4	22900	1122	2483.796	2.214
	Depth Total		**216600**	**11351**	**19044.360**	**1.678**
	150 - 200	1:2 – 1:3	3100	251	351.135	1.399
		1:3 – 1:4	145800	8342	19787.450	2.372
		1:4 – 1:5	200	11	32.013	2.910
	Depth Total		**149100**	**8604**	**20170.600**	**2.344**
	200 - 250	1:3 – 1:4	30700	2115	5093.640	2.408
		1:4 – 1:5	11400	743	1945.827	2.619

SANJAY KUMAR SINGH
Designated Qualified Person
Reg. No. (15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/ (15)/2009-CPAM dated 27.09.10.

Page IV - 48

SECTOR	DEPTH (m)	RATIO	AREA (m^2)	REERVE ('000 TONNES)	VOLUME ('000 m^3)	STRIPPING RATIO (m^3/t)
	Depth Total		**42100**	**2858**	**7039.467**	**2.463**
	Sector Total		**679000**	**31073**	**58902.340**	**1.896**
IV	0 - 50	<1:1	100	69	2.100	0.030
		1:2 – 1:3	18100	293	559.562	1.910
		1:3 – 1:4	40400	579	1181.780	2.041
		1:4 – 1:5	14800	133	400.486	3.011
		>1:5	5900	67	140.887	2.103
	Depth Total		**79300**	**1141**	**2284.815**	**2.002**
	50 - 100	<1:1	7200	224	201.456	0.899
		1:1 – 1:2	82100	3353	3386.862	1.010
		1:2 – 1:3	28300	1193	1725.109	1.446
		1:3 – 1:4	20300	577	842.583	1.460
	Depth Total		**137900**	**5347**	**6156.010**	**1.151**
	100 - 150	1:1 – 1:2	100	5	6.663	1.333
	Depth Total		**100**	**5**	**6.663**	**1.333**
	Sector Total		**217300**	**6493**	**8447.488**	**1.301**
V	0 - 50	1:1 – 1:2	100	30	2.573	0.086
		1:2 – 1:3	5200	80	156.494	1.956
		1:3 – 1:4	32400	516	1013.048	1.963
		1:4 – 1:5	34500	356	1064.945	2.991
		>1:5	26500	213	805.907	3.784
	Depth Total		**98700**	**1195**	**3042.967**	**2.546**
	50 - 100	<1:1	400	12	11.901	0.992
		1:1 – 1:2	82300	3146	3736.673	1.188
		1:2 – 1:3	18800	806	1164.137	1.444

SANJIV KUMAR SINGH
Recognised Qualified Person
Reg. No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/ (15)/2009-CPAM dated 27.09.10.

पवन देव जामता/PAWAN DEV JAMTA
उप महाप्रबंधक (सीमाशुल्क)
Dy. General Manager (Commercial)
एन.टी.पी.सी. लिमिटेड / NTPC LIMITED
EGC, A-8A, Sector-24, Noida-201301 (U.P.)

SECTOR	DEPTH (m)	RATIO	AREA (m^2)	REERVE ('000 TONNES)	VOLUME ('000 m^3)	STRIPPING RATIO (m^3/t)
		1:3 – 1:4	16900	436	753.228	1.728
		1:4 – 1:5	19000	493	929.143	1.885
		>1:5	2200	140	100.593	0.719
	Depth Total		**139600**	**5033**	**6695.675**	**1.330**
	100 - 150	1:2 – 1:3	1200	54	83.737	1.551
		>1:5	1000	51	88.450	1.734
	Depth Total		**2200**	**105**	**172.187**	**1.640**
	Sector Total		**240500**	**6333**	**9910.828**	**1.565**
GRAND TOTAL		<1:1	64200	2033	1718.782	0.653
		1:1 – 1:2	833100	37466	40862.180	1.091
		1:2 – 1:3	724200	32059	53854.410	1.680
		1:3 – 1:4	633300	28879	66109.180	2.289
		1:4 – 1:5	137700	3304	8187.831	2.478
		>1:5	100400	818	2665.290	3.283
		TOTAL	**2492900**	**105159**	**173417.700**	**1.649**

4.6.2.7 SECTORS FOR RESERVE ESTIMATION

Based on structural set up, the block has been divided into 6 sectors. Descriptions of sectors are given in **Table 4.17**. Category wise Geological Reserve of PB North West Quarry are given in **Table 4.18**. Seamwise and Gradewise reserves are given in **Table 4.19**.

TABLE 4.17
DESCRIPTION OF SECTORS

SECTOR	DESCRIPTION
Sector I	Located in the southern part of the block bounded by southern, western and eastern boundary of the block and up thrown trace of fault F_1-F_5

SANJIV KUMAR SINGH
Competent Qualified Person
No. 340 /(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEVI MAMTA
Deputy General Manager (Commercial)
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Sector II	Located to the north of Sector-I, bounded by down thrown trace of fault F_1-F_1 in the south, upthrown trace of fault F_3-F_3 in north and by block boundary
Sector III	Located in the central part bounded by down thrown trace of Fault F_3-F_3, upthrown trace of fault F_4-F_4 in the north and by block boundary
Sector IV	Located in the north eastern part of the block, bounded by down thrown trace of fault F_4-F_4, in the south and up thrown trace of fault F_6-F_6 in the north and block boundary.
Sector V	Located in the north eastern part of the block bounded by block boundary, up thrown trace of fault F_5-F_5 in the north, block boundary in the east and down thrown trace of fault F_6-F_6 in the south and west
Sector VI	A small triangular patch located in the extreme north-eastern part, bounded by block boundary in north & east, and down thrown trace of fault F_5-F_5 in the south and west

A total of 137.584 million tonnes of coal reserves varying in grade from 'G' to 'A' has been established in Pakri Barwadih North West (Sector-A) Coal Block, out of which 134.470 m.t falls in proved category and 3.114 m.t in 'Indicated Category'.

Table 4.18

Category wise Geological Reserve of PB North West Quarry

Property	Reserves in Million Tonnes		
	Category		Total
	Proved	Indicated	Total
Opencast	106.263	0.425	106.688
Underground	28.207	2.689	30.896
Total	**134.470**	**3.114**	**137.584**

Table 4.19

SEAM WISE AND GRADE WISE GEOLOGICAL RESERVES

(In '000 Tonnes)

SEAM/ GRADE	A	B	C	D	E	F	G	TOTAL
V COMB	0	0	0	0	175	6010	0	6185
IV COMB	0	0	0	0	3547	8174	0	11721

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340 (11)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/ (15)/2009-CPAM dated 27.09.10.

PAWAN DEV JAMTA
NTPC LIMITED

SEAM/ GRADE	A	B	C	D	E	F	G	TOTAL
II TOP	0	0	0	699	9683	0	0	**10372**
II MID	0	0	0	9623	2610	0	0	**12233**
II T+M	0	0	0	8459	12825	1347	0	**22631**
II BOT	0	0	0	1481	9913	703	1	**12098**
I TOP	0	0	277	2829	3188	805	0	**7099**
I MID	0	0	402	984	2593	435	0	**4414**
I BOT	0	0	416	499	484	389	85	**1873**
I M+B	0	0	0	0	7256	10806	0	**18062**
LOCAL	0	0	50	1414	733	391	0	**2597**
K - 5	97	0	4	0	1	26	0	**128**
K – 4	1958	1044	723	486	0	0	0	**4211**
K – 3	1159	947	988	249	0	0	0	**3343**
K – 2	3841	534	390	403	207	0	0	**5375**
K – 1	6301	4870	2142	1107	606	126	0	**15242**
TOTAL	13356	7395	5401	28323	53821	29212	86	**137594**

Seam wise and Depthwise Geological Reserve of PB North West Quarry are given in **Table 4.20.** Seamwise and Depthwise Underground reserves are given in **Table 4.21.**

Table 4.20

SEAM WISE AND DEPTH WISE OPENCAST RESERVES

(In '000 Tonnes)

SEAM/DEPTH	0 - 50	50 - 100	100 - 150	150 - 200	200 - 250	250 - 300	TOTAL
V COMB	26	891	2150	2312	803	3	**6185**
IV COMB	32	2657	4106	3430	1485	11	**11721**
II TOP	35	3611	2897	2592	1226	11	**10372**
II MID	220	4297	3190	2999	1514	13	**12233**
II T+M	389	10758	5631	4660	1193	0	**22631**

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्य)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

SEAM/DEPTH	0 - 50	50 - 100	100 - 150	150 - 200	200 - 250	250 - 300	TOTAL
II BOT	695	5011	2630	2639	1117	6	**12098**
I TOP	1081	2927	1355	1240	496	0	**7099**
I MID	1485	1670	1039	216	2	2	**4414**
I BOT	862	629	276	104	1	1	**1873**
I M+B	2386	6632	3407	4115	1537	5	**18062**
TOTAL	**7191**	**39083**	**26681**	**24307**	**9374**	**52**	**106688**

Table 4.21

SEAM WISE AND DEPTH WISE UNDERGROUND RESERVES PB (NW)

(in '000 Tonnes)

SEAM/DEPTH	<300	>300	TOTAL
LOCAL	0	2597	**2597**
K - 5	128	0	**128**
K – 4	4209	2	**4211**
K – 3	3334	9	**3343**
K – 2	5355	20	**5375**
K – 1	15023	219	**15242**
TOTAL	**28049**	**2847**	**30896**

4.7 Total Reserves

Total reserves of Pakri Barwadih Coal Block is given in **Table 4.22**.

Table No 4.22

Total Reserve in Pakri Barwadih Block

Sl. No.	Reserve Category	PB West & East	PB NW	Total(Reserve in Million Tones)
1	Proved	703	134.470	837.470
2	Indicated	733	3.114	736.114
	Total	1436	137.584	1573.584

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340 (15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जागरण/PAWAN DEV JAMTA
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)


पवन देव जमोटा/PAWAN DEV JAMOTA
NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

CHAPTER V

MINING

पवन देव जामता/PAWAN DEV JAMTA
वर महाप्रबन्धक (कॉर्पोरेट)
Dep. General Manager (Corporate Cell)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

[illegible] KUMAR SINGH
Empowered Qualified Person
[illegible] (19)/2009-CPAM
Ministry of Coal, Govt. of India


PAWAN DEV JAMTA
NTPC LIMITED

CHAPTER V
MINING

5.1. GENERAL

5.1.1. Pakri Barwadih coal mining block covers an area of 46.95 Sq km and located in North Karanpura Coalfield. Present Mining Plan covers entire area of the block including an area of 2.66 sq km falling outside block between Barakar seams and metamorphic on the rise side for OB dumps, proposed mine infrastructure, evacuation corridor and railway siding. Underground Mining is also proposed for which separate mining plan shall be submitted on 9th year from the commencement of Opencast Mining operations. Details of area is given in **Table 5.1**.

Table 5.1
Area of the Block

Sl. No.	Particulars	Area in Sq. Km
1	Pakri Barwadih West and East	39.43
2	Pakri Barwadih North West	4.85
3	Additional area for OB dump, Infra, Evacuation	2.66
	Total	**46.95**

5.1.2. Total 27 number of villages are located in the coal block. Villages namely Itiz, Chirudih, Nagadi, Dadi Kalan, Chepa Kalan, Arahara, Pakri Barwadih, Sinduari, Sonbersa, Churchu, Jugra, Chepa Khurd, Keri, Langatu, Deoria Khurd, Urub, Barkagaon, Bariatu ,Beltu, Kandaber, Nawadih, Sirma, Basariya and Jabra. Sirma, Basariya and Nawadih are located in the northern part of the block. Jabra village is towards Southwest of the block.

Cumulative population of approximately 8339 Project Affected Persons (PAPs) were estimated for the block. These PAPs shall be relocated at Rehabilitation and Resettlement Colony which shall be constructed near Denga Village on the South Eastern part of the Block.

5.2. MINE DESIGN STRATEGY

5.2.1. Out of 44.28 sq Km block area of Pakri Barwadih Block, 29.28 Sq Km is fully explored and rest 15 sq km is regionally explored. 266.08 Ha of land falls outside of the block boundary. Two nos. of Geological Reports have been prepared, the first GR which was prepared by CMPDI covered West and East part of the block while the other GR prepared by MECL covered North West sector. Total area of the block is 46.95 Sq. Km. Estimated coal reserves are

Chapter V - Mining

RQP No. 34011/(15)/2009-CPAM dated 27.09.10.

Page V-1

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Deputy General Manager (Coal Mining)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

1573 million tonnes. Data from both the GRs have been used for preparation of Present Mining Plan.

5.2.2. Pakri Barwadih Block is designed to produce 18 MTPA (Peak Capacity) of coal for captive usage of NTPC Power Plants located at different parts of country. As block area is virgin/Greenfield and no coal evacuation infrastructure is available at present, requisite infrastructure is also planned.

5.2.3. In the present Mining Plan, coal from Pakri Barwadih blocks is envisaged for extraction of coal by Open Cast method of mining. Coal shall be extracted up to 300 meter depth line only by mixed slicing method through deployment of Shovel-Dumper combination. Horizontal slicing method shall be adopted to extract coal from PB North West and East quarry while combination of inclined and horizontal slicing method shall be adopted to extract coal from PB West quarry.

Underground Mining is proposed for which separate mining plan shall be submitted on 9th year from the commencement of opencast mining operations.

5.2.4. Initially two box cuts namely Box cut-West & Box cut – East shall be simultaneously driven for Pakri Barwadih West, Pakri Barwadih East respectively. PB East quarry shall be worked for two years initially. On 4th year to facilitate augmentation of coal extraction one more box cut in the quarry PB North West shall be driven. During 25th year when the PB-West quarry ceases to operate, previously driven (Box Cut-East) shall be restarted and continued for extraction of coal from PB East quarry in the remaining life of PB East mine.

5.2.5. Mining Operations shall be carried out in three quarries namely PB West, PB East and PB North West. PB West quarry shall commence production on 1st operating year shall produce peak production of 15 MTPA in 12th operating year. PB East quarry shall also commence on the 1st operating year and shall produce peak production 1.1 MTPA for initial two years only. However, while PB West Quarry shall still be operational PB East quarry shall be restarted after 25th year. Throughout the period of 37 operational years PB West Quarry and PB East together shall be producing 15 MTPA of Peak production.

PB North West quarry shall commence production on 4th operating year and produce peak production of 3 MTPA up to 50th year.

SANJIV KUMAR SINGH
Managerial Qualified Person
No. 342 (15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EGC, A-8A, Sector-24, Noida-201301 (U.P.)

The combined peak production of Pakri Barwadih shall be 18 MTPA from 12th to 37th operational year. Total life of Pakri barwadih coal mine is 52 years.

5.2.6. For optimisation of internal dumping in PB West quarry, 4 pits shall be created namely WP-1, WP-2 WP-3 and WP-4 to progressively all these pits shall be worked and filled by in pit dumping in succession. For operation of PB East only one pit shall be created. PB North West quarry shall be worked by making two pits namely PIT-1, PIT-2 and in later years PIT-1 shall be filled by in pit dumping.

5.2.7. Scrapping of Top soil, face preparation, marking of holes, drilling, charging of holes blasting, loading through excavators, transportation of OB & coal to the destination, observance of safety requirements, dust suppression, deployment of statutory personnel, haul roads preparation, grading, environment management, wildlife preservation etc. shall be routine operations observed during extraction of mineral.

5.2.8. Useful Top soil shall be scrapped and stacked separately before preparation of OB for reclamation purposes. Drilling and Blasting shall be performed by deployment of large diameter drilling machines and SMS/emulsion explosives. Excavated OB shall be loaded by High capacity Excavators in High capacity Dumpers. This OB shall be dumped either in allocated external dumps or designated in pit dumps.

5.2.9. In initial years OB shall have to be exclusively dumped in the external dump. Dump A, B & C are earmarked to dump Overburden produced from PB West quarry. Dump D is earmarked to dump Overburden produced from PB East quarry for two years only. During the course of mining in the Western Quarry, in pit dumping shall also be carried out when sufficient de-coaled area is available. In the later years i.e after 25 years entire Overburden of PB East quarry shall be dumped in the void created by workings of PB West quarry. Here also intermittent in pit dumping shall be performed. Therefore no re-handling of OB shall take place for PB-West and PB East quarry. It is not proposed to re handle external dumps created by PB West & PB East Quarry.

5.2.10. For PB-NW quarry three external dumping location have been identified name A, B and C. External dump A shall be re-handled to facilitate extraction from PIT-2. Dump-C shall be re-handled and filled in the void of PB-West quarry to facilitate extraction of coal locked beneath it. Dump heights varying from 60m-90m shall be maintained.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011 (15)/2009-CPAM
Ministry of Coal, Govt. of India

पंकज देव जामाता/PAWAN DEV JAMTA
उप महाप्रबंधक (Dept. of Mining)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

5.2.11. Nallahs namely Khora, Dumuha, Pakwa Nalla, Hardara are traversing through the block.

It is proposed to construct a catchment canal from the northern periphery of the block as per the diversion study report prepared by CWPRS, Pune. The above drain shall also serve the purpose of catchment canal for rainwater and runoff from northern hills.

Lathorva nalla which flows from western side of PB NW quarry shall not be diverted but realigned/straightened if necessary emboldened to carry additional load of diverted Khora Nalla.

Before restart of exploitation of East Quarry reserves Hardara Nalla shall be diverted in the periphery of PB East Quarry which shall meet its own course further downstream within the block boundary.

General slope for diverted channel shall be kept as 1 in 500-1000, side slopes shall be kept limited to 2H to 1V and free board shall be maintained to 1.5m.

It is amply clear from the above that all nallas flowing through the blocks and interfering with the production regime shall be diverted preferably to the northern fringe of the block to free up the locked reserves so as to ensure minimum or no sterilization of coal.

5.2.12. There shall not be any barrier between PB NW, PB West, PB East quarries hence no coal shall be sterilized. Reserves are blocked only in the barrier left against the adjacent mines and batters which shall be governed by prevailing design standards.

5.2.13. Detailed exploration of regionally explored area below planned Dump-C where underground mining is proposed shall be carried out and finished before commencement of actual dumping operations in such a manner not to jeopardise the underground mining operations.

5.2.14. ROM coal transportation shall be effected by dumper brought up to receiving hopper of primary Crusher. Coal shall be reduced up to (-) 50mm size by the deployment of Primary and Secondary crushing units. Crushed coal from West and East Quarry shall be fed by mine end conveyor system either to stock yard having stacking & reclaiming system or directly to 14 km Cross Country conveyor transporting coal from mine to Silo at Bandag railway siding.. Within mining lease (-) 50 mm coal shall be transported from PB NW to stacking and reclaiming system by trucks.

5.2.15. Loading silos of concrete construction, shall load the coal in the Railway 60T/other specification wagons through Rapid Loading System, weighment arrangement of coal at conveyors and in motion weigh bridges shall be provided

पवन देव जामटा/PAWAN DEV JAMTA
Dep... General Manager (Co-Planned)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

pre & post loading points. Through Indian Railway system coal shall be transported to its destination.

5.2.16. Coal washability study has not yet been carried out for Pakri Barwadih Coal. Coal quality parameters obtained from the proximate analysis of coal revealed that ash percentage in all probability is likely to remain 34% or below which does not call for commissioning of coal washery. However to cater for more stringent future quality stipulations, space allocation is earmarked for commissioning of Coal Washery at mine end to facilitate transport of washed coal to the power plants as per qualitative requirements.

5.2.17. Permanent source of electrical power is identified as Patratu Thermal Power station transmission lines shall be drawn at 220KV. The 220/33/11KV main receiving station is being envisaged by NTPC for providing power for mining operations. Two nos. of 33KV independent feeders are provided from 33KV switchgear for each quarry i.e for PB West, PB East and PB North West quarry. Further power distribution to infrastructure and other facilities for both the quarries shall through 33KV transmission Lines. High capacity DG sets have been envisaged for backup power.

5.2.18. Hazaribagh-Tandwa Road which passes through eastern part of the block is identified as approach road to connect the mine from Sate Highway. Nearly 10 km road upto Mine entry shall be constructed/strengthened for transportation of HEMM during commissioning. Existing Hazaribagh- Tandwa Road shall be diverted at the periphery of PB East quarry during 18th year of mining operation to facilitate extraction coal from East quarry.

5.2.19. Requisite infrastructure is planned for PB West & East quarry and NW quarry. Infrastructure proposed for PB West such as CHP, Sub Station, Workshop, administrative buildings etc. shall be utilised also for PB East quarry. Some infrastructure/facilities such as haul roads, culverts drainage system etc. shall be made separately for eastern quarry. Certain facilities such as coal sampling lab, environmental cell, vocational training centre, magazine etc. shall be common for both the quarries.

5.2.20. Environment clearance, forest clearance, nalla diversion study, SES study have been completed for PB West and PB East quarry. However, Environment clearance, Forest clearance, Nalla diversion study, SES study shall be carried out separately for PB NW quarry. Slope stability and wash ability study (if required) shall be carried out for entire block.

5.2.21. During mine closure there shall be two voids. The first in the order shall be in the North West side while the second shall be on the eastern side of the block. Re-handling of internal & external dump overburden for reduction of void is not

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340 (15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जमता/PAWAN DEV JAMTA
Deputy General Manager (Environment)
ECL, A-8A, Sector-2A, Noida (U.P.)

envisaged in the present mining plan. The voids so left shall serve for the purpose of water storage reservoir for use society and shall also facilitate groundwater recharge. Overburden dumps shall be planted, as far as possible the other area shall be levelled and planted and handed over the state government. Dangerous infrastructures shall be dismantled, manpower shall be shifted to other operating mine of NTPC. Roads and buildings shall be handed over to the state government for public use.

5.3. MINING

As already explained extraction of reserves shall be carried out from three distinct quarries of Pakri Barwadih Coal Block. The mining system is explained under following different heads.

i) Characteristics of Deposit
ii) Quarry boundary
iii) Opening up of Deposit
iv) Quarry Design Strategy
v) Mineable Reserves and Stripping Ratio
vi) Mining Method and Choice of Technology
vii) System Parameters
viii) Drilling and Blasting
ix) Disposal of Waste
x) Projected Production Plan/Calendar Program
xi) Equipment Requirement
xii) Annual Capacity and Life of Quarry
xiii) Quarry Drainage

5.3.1. Characteristics of Deposit

PB West & East

The geological & mining characteristics of the PB West & East depicts total 12 workable splits contained in 5 seams i.e. Seam-I to V is considered for open cast mining. Seam I occurrence is not reported in most of the boreholes, as a result mining shall be carried out in patches. In general, the coal seams are dipping at 1 in 3 to 1 in 5 towards south. As per Geological Report prepared by CMPDI, the Karharbari formations containfive thin non workable seams namely K1 – K5. The average thicknes of these seams are less than 1m. GR indicated four coal seams (Seam-II to V with 9 distinct splits) amenable for opencast mining. On critical analysis taking mineral conservation as top priority, patches of seam I is also considered in the planning. Advance drilling shall be carried out to prove the extent of Seam-I for opencast mining. The seam can be taken with the same Haul Road in pockets.

PB (North West)

The geological & mining characteristics of PB North West depicts a basinal structure particularly in the, area north and west which are Precambrian inlier.

SANJIV KUMAR SINGH
Recognised Qualified Person
Reg. 345 /(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10.

PAWAN DEV JAMTA

The older formations are exposed along the periphery of the coalfield while the youngest Mahadevas occur in the axial region. The axis of syncline runs almost east-west. The general strike of the formation is almost east-west. The local swing in the strike at places is due to rolling dip. The strata are dipping at 10° to 12° southerly.

The block is traversed by 8 numbers of faults. Among these, 3 faults are varying from 0 m to 50 m. Fault F1 is the major fault varying in through from 160m to 180m. This fault runs approximately along southern to western boundary of the block. The trend of the fault is NW-SE and except faults F7 & F8, all are extending in metamorphic terrain.

There are total 10 nos. of coal seams, 5 each coal bearing horizons belonging to Barakar & Karharbari formation respectively. In ascending order these are seam K-1,K-2,K-3,K-4,K-5 in Karharbari Formation and Local(L), I, II, IV & V in Barakar Formation. Seam I splits into 3 sections viz. I Top, I Middle & I Bottom. At places Seam I Bottom and I Middle combined and form single seam namely I Bottom + Middle. Similarly, Seam II also splits into 3 sections viz. II Top, II Middle and II Bottom. Seam II Top and II Middle coalesce to form single seam as II Top + II Middle in eastern part. Seam V & IV occur as a combined seam.

In the proposed Mining Plan, the entire property is envisaged to be mined by opencast method from the view of conservation of coal.

The mining & geological characteristics of the PB West East quarriable block for OCP are given in **Table 5.2A. The mining & geological characteristics of the PB West East** quarriable block for OCP are given in **Table 5.2B.**

Table 5.2A

Mining and Geological Characteristics of PB West & East Quarriable Block

Sr. No	Particulars	Unit	WEST QUARRY				EAST QUARRY
			WP-1	WP-2	WP-3	WP-4	-
I	Seams/ Splits		Thickness range of Coal Seam				
	1. IB	m	3.27-6.03	0.20 – 6.69	0.25 – 5.44	0.22 – 8.1	0.25 – 4.8
	2. IM	m	2.2 – 10.13	1.7 - 5.5	1 – 4.95	0.42 – 5.9	0.87-6.71
	3. IT	m	2.65 – 5.98	0.45 – 3.23	0.93 -11.36	0.5 – 5.35	0.42 – 4.95
	4. IIB	m		2.84- 8.82	2.68-11.26	1.4 – 11.4	1.99 – 14.02
	5. IIM	m		1.75 – 8.82	5.14 – 11.25	5.9 – 20.04	3.5 – 10.98
	6. IIT	m		0.74 – 6.49	0.98 – 5.2	1.54 – 12.7	0.23 – 2.85
	7. IIIB	m		0.23 – 2.85	0.28 – 3.1	0.16 – 2.30	0.21 – 2.41
	8. IIIT	m		1.3 – 7.01	0.67 – 2.53	0.23 – 3.75	0.49 – 3.22
	9. IVB	m			0.88- 3.59	0.65 – 7.64	0.87 – 6.56
	10. IVT	m			0.9 – 4.26	1.8 – 7.88	2.34 – 6.57
	11. VB	m			0.29 – 3.0	0.37 – 3.0	0.21 – 2.04
	12. VT	m			0.3 – 3.0	0.36 – 3.24	0.84-3.91
			Average thickness overburden				
II	Top OB (Avg.)	m	22.90	26.72	27.37	91.16	74.57
III	Partings		Thickness range of Parting				

SANJIV KUMAR SINGH
Recognised Qualified Person
Regd. No. 340 (III)/2009-CPAM
Ministry of Coal, Govt. of India

	Part bet IB & IM	m	2.29 – 3.62	0.95 – 10.56	1.13 – 16.35	0.95 – 11.96	0.85- 18.7
	Part bet IM & IT	m	1.0 – 2.60	1.66- 3.71	1.01 – 15.6	1.02 – 16.77	1.5 – 14.73
	Part bet IT & IIB	m		7.43 – 25.5	11.21 – 30.05	6.21 – 30.43	4.74 – 27.94
	Part bet IIB & IIM	m		1.8 – 5.28	0 – 2.85	0.85 – 4.65	0.97 – 5.8
	Part bet IIM & IIT	m		10.46 – 10.46	19.04 – 29.42	1.2 – 31.93	1.34 – 28.12
	Part bet IIT & IIIB	m		10.16-20.39	10.24 – 33.87	3.39 – 45.97	1.97 – 33.72
	Part bet IIIB & IIIT	m		4.38-24.75	2.48 – 17.29	1.1 – 20.2	0.94 – 16.94
	Part bet IIIT & IVB	m			8.58 – 29.23	5.1 – 44.31	5.31 – 22.93
	Part bet IVB & IVT	m			1.23 – 6.54	0.9 – 6.76	16.38 – 17.59
	Part bet IVT & VB	m			23.08	2.16 – 24.97	5.88 – 19.95
	Part bet VB & VT	m				0.8 – 7.19	0.82 – 4.89
IV	Quarry parameters						
	Dip of Seams		1 in 4 to 1 in 5	1 in 4 to 1 in 5.5	1 in 4	1 in 4	1 in 3
	Surface Strike Length	m	1800	2200	1600	5500	3800
	Surface width	m	400	800	400	1800	1400
	Maximum depth	m	100	150	125	300	300
	Area of excavation *	Ha	59.98	140.7	113.6	805.29	662.85

Table 5.2 B

Mining and Geological Characteristics of PB NW Quarriable Block

Sl.no	Particulars	Units	PIT 1	PIT 2
	Seam /Parting			
1	V COMB	m	3.24-5.9	3.24-5.9
2	IV COMB	m	5.15-10.04	5.15-10.04
3	II TOP	m	6.96-10.61	6.96-10.61
4	II MID	m	7.17-11.68	7.17-11.68
5	II T+M	m	15.97-20.26	15.97-20.26
6	II BOT	m	2.85-6.3	2.85-6.3
7	I TOP	m	0.42-3.79	0.42-3.79
8	I MID	m	1.15-8.73	1.15-8.73
9	I BOT	m	1.01-4.17	1.01-4.17
10	I M+B	m	4.7-11.88	4.7-11.88
11	LOCAL(L)	m	0.06-2.35	0.06-2.35
12	K-5	m	0.08-1.32	0.08-1.32
13	K-4	m	0.28-1.74	0.28-1.74
14	K-3	m	0.45-1.96	0.45-1.96
15	K-2	m	0.06-2.99	0.06-2.99
16	K-1	m	1.19-4.68	1.19-4.68
	Top OB (Avg.)	Average thickness overburden		
		m	25	45

SANJAY KUMAR SINGH
Recognised Qualified Person
RQP No. 34011/[15]/2009-CPAM dated 27.05.10
Ministry of Coal, Govt. of India

	Parting			
1	Par bet V COMB & IV COMB	m	3.72	27.16
2	Par bet IV COMB & II TOP	m	0.98	30.55
3	Par bet II TOP & II MID	m	1.09	9.12
4	Par bet II MID & II T+M	m	0	0
5	Par bet II T+M & II BOT	m	1.4	28.22
6	Par bet II BOT & I TOP	m	5.89	15
7	Par bet I TOP & I MID	m	0.52	4.51
8	Par bet I MID & I BOT	m	0.17	4.19
9	Par bet I BOT & I M+B	m	0	0
10	Par bet I M+B & LOCAL(L)	m	16.8	27.68
11	Par bet LOCAL(L) & K-5	m	16.39	29.67
12	Par bet K-5 & K-4	m	4.74	12.65
13	Par bet K-4 & K-3	m	4.4	9.85
14	Par bet K-3 & K-2	m	8.45	19.58
15	Par bet K-2 & K-1	m	1.95	13.84
	Quarry parameters			
1	Quarry floor area	ha	167	158
2	Quarry surface area	ha	267	175
3	No. of seams	no	14	14
4	Life in years	no	24	28
5	Gradient		10° to 12°	10° to 12°
6	Strike length (along floor)			
	a) Maximum	m	1180	1060
	b) Minimum	m	555	220
7	Strike length (along surface)			
	a) Maximum	m	1410	1050
	b) Minimum	m	1060	290
	Depth		280	280

Note:
**Total quarriable area for all the pits=1982 ha (919.2 (West quarry) + 662.85 (East quarry) = 1582 ha. Out of 1582ha, 42 ha is common because of excavation to be done in phases. Hence net quarriable area for West & East quarries is 1540 ha).*

5.3.2. Mine/Quarry boundary

The boundaries of PB West and PB East Quarry are delineated and given in **Table-5.3**.

Table 5.3
Boundaries up to 300 m depth line

Particulars	WEST QUARRY				EAST QUARRY	NORTH WEST QUARRY	
	WP-1	WP-2	WP-3	WP-4		PIT-1	PIT-2
South-West Boundary	Incrop of Seam I	F_{10} and Incrop of Seam I	Incrop of Seam I	Incrop of Seam I	Incrop of Seam I	Incrop of K-1 seam Quarry surface has been projected at 45° on the surface, with respect to the quarry floor.	Incrop of K-1 seam Quarry surface has been projected at 45° on the surface, with respect to the quarry floor.
West Boundary	Khora nala and Incrop of Seam I	Khora nala and Incrop of Seam I	Arbitrary line	Khora nala	$F_1 F_2$	30 m from the Khora – D Nala.	20 m from the Khora – A Nala.
East Boundary	F_{10} & Incrop of Seam I	F_{10} - F_{10}	F_5	F_5	$F_1 F_2 F_3 F_4$	60 m from the Khora – A Nala.	60 m from the Khora – A Nala.
South-East Boundary	F_{10}	F_{10} & F_{10}	F_5 and FRL of 300 Seam-4	300 m depth line FRL of 120 m Seam-1	300 m depth & FRL of 120 m of Seam-1	Quarry surface has been projected at 45° on the surface as well as on the confluence of Khora Nala – A & B	Quarry surface has been projected at 45° on the surface as well as on the confluence of Khora Nala – A & B

Note: 7.5m space width is left from the outer boundary of PB NW quarry

5.3.3. Opening up of Deposit

Advance action activities would be implemented before starting Box-Cut operation in WP–1, WP–2 and WP–3 and EP in 1st year of quarry operation. These activities include

i) Land acquisition and possession.

ii) Construction of canal on the rise side of the proposed West Quarry to control inflow of surface water of the area on the rise side. This canal joins Hardara (Pakwa) nala in the east and Khora nala in turn Lathorva Nalla in the west.

iii) Bringing power line to the project and construction of electrical sub-station.

iv) Construction of the workshop for commissioning of HEMM and other necessary civil constructions.

v) Construction of essential Residential Buildings.

vi) Railway siding and coal loading arrangement for coal dispatch.

Details are shown in Surface Master Plan (SMP).

NW-Pit 1 shall be opened first by opening a box cut near the borehole MNPB - 7 in the incrop of Seam K - 1 at a gradient of 6% to touch the seam floor. The bottom seams are workable in this area. Initially the quarry shall be advanced towards southern block boundary in south and **NW-Pit 2** commences from an arbitrary line adjoining Pit - 1 in north. During later years the mine shall be advanced towards south in the dip side. Coal production shall start in P–4. During P – 6 of mining operations shall be shifted further west ward to accommodate the overburden in-pit dumping and the earlier mine opening

shall cease to operate. At the P-28, OB and Coal shall be transported to and from Pit – 2 through western most corner of the block. Temporary pit workshop shall cease to operate and permanent workshop shall be used for various purposes.

5.3.4. Quarry Design Strategy

PB-West and PB East

i) The rated capacity shall be achieved at the end of 12th year by increasing the production in gradual manner in order to create the space for internal dumping.

ii) A total of 9 workable splits contained in four seams i.e. Seam –II to V is considered for open cast mining excluding three distinct splits of Seam – I which is having three distinct splits has also been considered for mining in patches. Wherever required, advance drilling (if required) shall be carried out to prove the extent seam 1.

iii) It has been envisaged that quarry operation shall be started by creating three separate pits viz WP-1, WP-2 & WP-3 simultaneously in west quarry area to create the internal dump space along the area bounded by up throw faults.

iv) Due to the small size of pits, in the initial period, mine production shall be limited and gradually start producing 10 Mt by 5th year of production after about 3 km strike length in pit WP-4 gets developed.

v) The mine production shall again start increasing from 11th year of operation gradually when the WP-2, WP – 3 and WP – 4 shall merge leading to longer strike length of more than 5 km.

vi) The western quarry shall achieve a rated capacity of 15 Mt/yr from 12th year of operation and shall continue till 24th year (Stage Plans are enclosed). Further capacity enhancement is not possible due to the following reasons:

- Property is intervened by 19 Nos. of strike faults resulting into reduced strike length as well as dislocation of Seam II.
- Steep gradient of coal seams needs adoption of modified inclined slicing method of working in mining mass.
- Problem of internal dump stability at the floor gradient of 1 in 3 to 1 in 5.
- Large volume of overburden handling (Avg. SR 1: 4.16)
- Limited dump space available outside the mining mass where maximum dump height of 90 m has been considered.
- Most of the coal seams are thin with thickness ranging between 1 m to 4 m except seam II B & II M which are 6 to 9 m.
- Highly splitted seams with variable parting.

SANJIV KUMAR SINGH
Recognised Qualified Person
Ministry of Coal, Govt. of India

- Congestion of mining equipment at overburden benches. As the maximum possible per day dumping just matches with the dumping requirement at 15 MTPA.
- Considerably high rate of face advancement of the order of 60 m and 103 m in West and East quarry respectively in down dip direction to achieve 15 MTPA.

The above is depicted in Final Stage Quarry Plan.

vii) The magnitude of OB dumping can be judged from the fact that about 2098.78 million cubic meter of OB shall have to be excavated and dumped suitably for mining 503.40 Mt of coal from the total mine block upto a depth of 300 m.

viii) The total dumping outside the quarry shall be accommodated in dumps A and B on the northern side in non-forest area Dump C on southern side of the open-cast limit line and Dump D on northern side of PB East limit line. The ratio of external dumping on the surface as compared to total quantity shall be about 31% for the whole opencastable mine block.

ix) Attempt has been made to reduce external dumping by raising the height of back-filled dumps in WP-1, WP-2 & WP-3 and merging these with surface dumps A & B on the northern side so as to maximise total dump capacity. Details are shown in Final Stage Dump Plan.

x) The PB West quarry has been planned to achieve a rated capacity of 15 MTPA from 12th year onwards. The production from PB West quarry shall taper from 25th year and opencastable reserves of West quarry shall be completely exhausted by the end of 27th year. The production from PB North West quarry shall commence from 4th year onwards of production plan of Pakri Barwadih Block. PB East Quarry shall restart producing from 25th year with an overlap of 3 years so as to reach the full capacity before the exhaustion of PB West Quarry and maintain the rated capacity of 15 Mt/yr till its exhaustion. The de-coaled space of West quarry shall be utilised to accommodate remaining quantity of OB/waste to be generated in PB East quarry internally.

xi) The quarriable block for West and East Part of Pakri Barwadih have total 12 workable splits contained in 5 seams i.e Seam – I to V is considered for open cast mining. Seam I occurrence is not reported in most of the boreholes, as a result mining shall be carried out in patches. In general, the coal seams are dipping at 1 in 3 to 1 in 5 towards south.

xii) Before restart of PB East quarry, Hardara (Pakwa) nallah on the eastern side shall be diverted towards dump filled area. The main road linking Hazaribagh and Barkagaon shall also be diverted along the diverted course of above mentioned nallah (South-eastern boundary of block). This shall enable release of blocked coal underneath the Hardara (Pakwa) nallah & the existing road.

xiii) A canal has been planned along the north-eastern boundary of the block to catch the rain water & small streamlets ahead of the quarriable area for smooth operation of mine during rainy season.

PB-North West

i) Availability of numerous seams/splits (14nos.) at amenable depth (280m) and also reasonable coal overburden ratio (3.15 m3/t) presents a favourable situation to develop a mechanised opencast mine in the coal block under reference.

ii) The entire property is envisaged to mine by opencast method from the view of conservation of and exploitation of high grade coal.

iii) To the east of PB North West quarry adjoins PB Western Quarry which has an important bearing on design of PB North West Quarry mine. Road passing through northern fringe of the PB shall serve as approach road for PB North west. This road shall meet with Hazaribagh - Tandwa State Highway.

iv) Khora nala defines two sides of block boundary. Meandering part of Lathorva Nala – B at the western side of the block approximately 1 km in length is planned for straightening. Khora Nallah shall be diverted along the northern fringe of PB-NW part which shall discharge its load on Lathorva Nalla. Study of such diversion shall be carried out before commencement of PB-NW quarry. An embankment suitably sloped on both sides shall be constructed to prevent in-rush during rainy season and flash flood. A road of 5m wide shall run all alongside the embankment.

v) Initial Mine entry shall be made near borehole No. MNID – 13. Floor of seam K - 1 shall be mine floor. Entire coal of the block in envisaged for extraction. Due to paucity of land for OB dumping the mine is divided into two Pits namely Pit - 1 & Pit - 2. Fault F5 – F5 (throw 150m), shall serves as a natural arbitrary line of division of two pits. Pit – 2 is planned as an extension of Pit–1 in 28th year of mining operation.

vi) As land outside the block is unavailable all generated waste shall be dumped inside the coal block boundary in three locations namely Dump - A, Dump - B & Dump - C. Dump - A shall not be re-handled while Dump B and Dump C shall be temporary and progressively re-handled at later years of mine life. Rehandling shall facilitate release of additional area for excavation of coal from Pit–2 and from Barrier between PB-NW and PB-West (Total 33.18 Mt, 10.95Mt of PB West & 22.23Mt of PB North west). Plate No.4.

vii) Coal from the mine shall be brought to the surface by 60T coal body dumpers. ROM coal shall be reduced through primary and secondary crushing to (-) 50mm size. Crushed coal shall be transported by road upto a coal stock pile near TP–1 from where it shall be brought to NTPC's

SANJAY KUMAR SINGH
Recognised Qualified Person
Reg. No. (15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10.

367

पवन देव जमुआ/PAWAN DEV JAMTA
उप महाप्रबंधक (वि.प्रभाग)
Deputy General Manager (Commercial)
पी.ई.टी. सी. विभाग / NTPC LIMITED
ईओ, ए-8ए, सेक्टर-24, नोएडा-201301 (यू.पी.)

Benadag Yard by conveyors and shall be loaded on railway wagons by fast loading silo and dispatched to end use plants through Indian Railway.

viii) Taking into account the extraction of coal in the barrier between PB-NW and PB-West envisaged life of PB-NW quarry is 52 years including 3 years of construction period.

ix) Environmental clearance (EC) has already been obtained for PB block (West & East Quarries) vide MoEF letter no.J-11015/692/2007-IA. II(M) dated 19.05.2009 for rated production of 15Mtpa. At present, base line data generated previously are used to address environment management chapter. However, fresh EIA/EMP shall be carried out for this block and MoEF clearance shall be obtained.

x) The area is sparsely populated as revealed during site visit, approximately 150 PAP's have been considered for preparation of Mining Plan. Site is conducting SES study based on which Rehabilitation and Resettlement Plan shall be drawn for PAPs as per NPRR and other relevant policies.

5.3.5. Mineable Reserves, OB and Stripping Ratio

The total mineable reserve of **PB West and East Quarry** is estimated as 503.39 Mts up to the 300m depth line i.e. FRL of 120 m of seam II bottom and mineable coal reserves of seam I, which is found suitable for mining by the open cast method, especially in the western part of PB West Quarry and PB East Quarry. The corresponding OB removal estimated as 2098.78 Mm3 at an average stripping ratio of 4.16 m3/t. Percentage extraction with respect to net geological reserves for seam II to V is also given in the same table. Due to the discontinuous nature of Seam I it has been planned that mining shall be done in patches.

Total geological coal reserve of **PB NW Quarry** as per GR is estimated to be about 137.584 Mt. It is estimated that 105.78 Mt of mineable coal would be available against overburden of 348.24 Mm^3 within the mine boundaries However additional reserves of barrier 33.18 Mt. and additional OB of 90 Mm3 shall also be excavated is kept at present in Pit-2 account. The average stripping ratio works out to 3.30m^3/t. Extractable reserves of PB West & East is given in **Table-5.4**. The detailed break-up of quarry wise and sub-quarry wise mineable reserves is given in **Table 5.5**.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340 (15)/2009-CPAM
Ministry of Coal, Govt. of India

Table 5.4
Extractable Reserves

Sl No.	Description	Reserves (Mt)
	Total geological reserve up to 300 m depth line	
1	Seam I to V Net geological reserves as per (CMPDI GR)	707.67
2	Seam I to V Net geological reserves as per geological model based on Bore Hole data	696.78
3	Difference	1.5 %
	As per GR, seam I has not been considered opencastable	
4	Net geological reserves Seam II to Seam V (upto 300 m depth line) amenable to opencast mining	540 *
5	Additional coal reserves available beyond 300m depth line on high wall side as considered in Mining plan	15.45
6	Total reserves arrived for proposed quarry upto pit depth(4+5)	555.45
7	Less : Reserves transferred to UG property due to (a) Enclosed between Nallah and fault F-3 (b) Coal falling South of fault F-5	46.05
8	Less Coal Reserves in crushed zones between faults F1 & F2 having very steep gradient, narrow patch and cannot be worked hence kept outside pit boundary	16.50
9	**Net opencastable Reserves Seam II to seam V (9 -10-11)**	**490.90**
10	To be extracted from Eastern & Western Quarry	437.01
11	Barrier against Khora Nallah to be opencasted later along with North West patch "A".	10.95
12	**Net Extractable reserve (seam II to seam V)**	**447.96**
13	**Percentage extraction (seam II to seam V)**	**91.25 %**
	Reserve balance of seam I , a part of which has been considered for opencast mining in the present mining plan	
14	**As per GR, Total reserve of seam I up to 300 m depth line**	135
15	Reserves transferred to UG property	17.24
16	Coal Reserves in crushed zones between fault F1 & F2	2
17	**Net opencastable Reserves of Seam I (14 -15-16)**	115.76
18	To be extracted from Eastern & Western Quarry as per calendar plan	66.39
19	Barrier against Khora Nallah to be opencasted later along with North West patch "A".	5
20	Net extractable reserve of seam I as per mining plan (18+19)	71.39
21	Balance reserve(Part of which may be extracted later after proving by production support drilling)	39.37
22	**Total extractable reserve for West & East Quarries**	**503.37**
23	**Total Extractable reserve for NW Quarry**	**138.96**
23	**Total extractable reserve for PB Block (22+23)**	**642.35**

* As per table 5.4.1(pg. 169) of GR indicating sectorwise and depthwise volume of total excavation recasted at table 04.09 of mining plan the assessed volume of coal up to 300 m depth line of seam II

bottom is 329 Mm3 which compares favorably with volume estimates through geological model i.e. 327.27 Mm^3 (equivalent to 540 Mt considering average sp. gravity of 1.65).

Table 5.5
Mineable Coal Reserves, Volume of OBR, Stripping ratio

Quarry	Extractable reserves in Mt	OB including Access trench in Mm3	Strip ratio cum/t
WEST QUARRY(Seam I-V)			
WP -I	6.65	25.9	3.89
WP -II	28.47	82.57	3.01
WP -III	18.51	62.57	3.38
WP -IV	258.09	1067.44	4.14
Subtotal (West Quarry)	311.71	1238.49	3.97
EAST QUARRY (EP-1)(Seam I-V)	191.68	860.29	4.49
Subtotal (East Quarry)	191.68	860.29	4.49
***Subtotal (West and East Quarry)**	503.39	2098.78	4.17
NORTH WEST QUARRY (All Seam)			
PIT 1	68.6	201	2.94
PIT 2	70.36	237.24	3.96
****Subtotal (NW Quarry)**	138.96	438.24	3.15
TOTAL (block)	642.34	2537.02	3.95

Remarks:

**Up to 300 m depth line, OB estimated as per GR = 1441 Mm^3. In the GR, the OB estimation is based on considering vertical wall along 300 m depth line.*

i. In the Mining-Plan, the final stage-working plan envisages, inclined pit slope due to benching and for stability. Hence the total OB in quarriable area works out to 2098 Mm^3 considering pit slope for both Western & Eastern quarries combined and extraction of Seam-I in certain patches.

ii. In the Mining-Plan certain patches of Seam-I is planned to be extracted by opencast. For this additional overburden, parting between Seam-I top to FRL of Seam-II B is required to be evacuated for extracting Seam-I. Total quantity 186 Million m^3 – II to I.

iii. Additional excavation done along high wall to provide for inclined pit-slope providing stability to the high wall as well as for batter roads 471 Million m^3 (This 471 Million m^3 constitutes 22.45 % of total excavation i.e. 2098 Million m^3)

Hence additional excavation required to be done on account of above two reasons is 186 Million m^3 + 471 Million m^3 = 657 Million m^3.

Thus total OBR removal/ excavation required to be done = 1441 Million m^3 + 657 Million m^3) = 2098 Million m^3

***The Geological Report indicated that the coal reserves down upto Seam - I are 106.688 Mt with an OB: Coal ratio of 1.549.*
In the present Mining Plan, the lower seams also have been considered for OC mining due to two reasons first Good quality of coal in Karharaban seams and the second the stripping ratio for the workable area (>1m) of these seams comes around 3.5-4 m3/t for all the seams combined together.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10

पवन देव जामटा/PAWAN DEV JAMTA
Dep. General Manager (Co...)
TRIPES / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

i. The equipment selection and operating methods have been designed considering the volume and nature of overburden and disposition of coal seams.

ii. Additional reserves of 33.18 Mt. from barrier & batter, and additional OB of 90 mm3 shall also be excavated to kept at present in Pit-2 account.

Extractable Reserves:

Net opencastable reserves of Pakri Barwadih is 808.23 Mt. barrier loass and batter loss worked out as 58.74 Mt and 106.22 Mt. Taking into account of mining losses of 20.72 Mt extractable reserves worked out as 642.35 Mt. Percentage of extraction by opencast mine is 78%. Net reserves and extractable reserves alongwith losses are given in **Table -5.6.**

Table -5.6
Net reserves and extractable reserves and losses

(in Mt.)

Seam	Net Reserve	Barrier Loss	Batter Loss	Mineable Reserves	Mining Loss	Extractable Reserve	% Extraction
V Top	22.29	0.72	1.57	19.99	0.59	19.40	87.06
V Bottom	15.56	0.51	1.10	13.96	0.41	13.55	87.06
V Combined	11.57	0.21	0.49	10.87	0.44	10.43	90.16
Seam - V	**49.42**	**1.44**	**3.16**	**44.82**	**1.44**	**43.38**	**87.78**
IV Top	19.82	0.64	2.23	16.95	0.50	16.46	83.01
IV Bottom	9.92	0.32	1.12	8.48	0.25	8.23	83.01
IV Combined	92.32	3.15	10.68	78.49	2.43	76.06	82.39
Seam - IV	**122.06**	**4.10**	**14.03**	**103.93**	**3.18**	**100.75**	**82.54**
III Top	27.45	1.21	2.04	24.20	0.70	23.49	85.59
III Bottom	9.83	0.43	0.73	8.66	0.25	8.41	85.59
III Combined	4.80	0.21	0.36	4.23	0.12	4.11	85.59
Seam - III	**42.08**	**1.85**	**3.13**	**37.10**	**1.08**	**36.02**	**85.59**
II Top	59.98	4.66	8.21	49.11	1.89	47.22	78.72
II Middle	139.75	11.83	11.24	116.66	3.83	112.86	80.75
II TM	76.09	7.28	5.63	63.18	1.77	61.40	80.70
II Bottom	116.05	10.76	9.90	95.39	2.89	92.50	79.71
II MB	17.90	1.71	1.32	14.86	0.42	14.44	80.70
II Combined	7.35	0.70	0.54	6.11	0.17	5.94	80.70
Seam- II	**417.13**	**36.95**	**34.85**	**345.33**	**10.97**	**334.36**	**80.16**
I Top	36.93	2.72	9.39	24.81	0.77	24.05	65.11
I Middle	72.97	5.27	18.20	49.49	1.66	47.84	65.56
I TM	2.51	0.23	0.79	1.49	0.04	1.45	57.80
I Bottom	35.60	2.52	8.69	24.39	0.52	23.87	67.05
I MB	14.85	1.35	4.67	8.83	0.24	8.58	57.80

Seam	Net Reserve	Barrier Loss	Batter Loss	Mineable Reserves	Mining Loss	Extractable Reserve	% Extraction
I Combined	3.58	0.33	1.13	2.13	0.06	2.07	57.80
Seam- I	**166.44**	**12.42**	**42.88**	**111.14**	**3.28**	**107.86**	**64.81**
I.L	2.60	0.10	0.35	2.15	0.11	2.04	78.62
K5	0.13	0.01	0.06	0.06	0.01	0.05	36.32
K4	4.21	0.13	1.11	2.97	0.11	2.86	67.83
K3	3.34	0.22	0.86	2.26	0.06	2.20	65.95
K2	5.38	0.27	1.14	3.97	0.07	3.90	72.40
K1	15.24	1.25	4.65	9.34	0.41	8.93	58.62
Seam-Local	**30.90**	**1.98**	**8.17**	**20.75**	**0.77**	**19.98**	**64.66**
Total	***828.03**	**58.74**	**196.22**	**663.07**	**20.72**	**642.34**	**77.58**

**Additional 20Mt of proved reserve had not been considered in the above table as the same is considered to be mined by u/g*

5.3.6. Mining Method and Choice of Technology

Opencast Mining

Opencast mining method for the targeted reserves has been adopted due to following reasons

a. The coal seams are in cropping at a shallow depth;
b. The OB : Coal ratio is favorable (3.15 : 1) for opencast mining;
c. Higher percentage of recovery as compared to underground system.
d. The mining by opencast method shall be economical against underground method
e. The opencast mining operations are comparatively safer and ensure higher recovery of coal resource.(Final Stage Quarry Plan is enclosed)

Selection of mining technology

Following types of equipment systems available for opencast mining:

a) Bucket wheel mining
b) Dragline mining
c) Continuous surface miner (CSM)
d) Shovel dumper combination

Technical feasibility for deployment of each of the above technology has been studied in details, based upon the prevalent conditions existing therein in North-Western Coal Mining Project, shovel dumper combination owing to its flexibility recommended as most favourable method of mining. Brief of each of the system is explained.

SANJIV KUMAR SINGH
Scientist-F/Technical Officer
Min. of Coal, Govt. of India

(a) Bucket Wheel Excavator

Bucket Wheel Excavator (BWE) alternative has not been considered due to following reasons

i. The strata below the upper most weathered mantle are hard and strong requiring blasting hence bucket wheel is not viable.

ii. Presence of large number of seams and interburden layers of mostly of small thickness, which shall be uneconomic in this alternative.

iii. Requirement of precision selective mining which shall not be possible by bucket wheels especially for thin seams and partings.

In view of the above this option is not recommended.

(b) Dragline

Dragline has not been recommended due to following reasons.

i. Steep gradient of seams

ii. Multiplicity of seams and that the lower most seam is thin and the OB parting lying over is also thin due to which neither the advantage of long reach can be taken nor adequate OB material shall be available from the overlying OB layer for direct casting.

In view of the above this option is not recommended.

(c) Continuous Surface Miner (CSM)

CSM has not been recommended due to following reasons:

i. Depth of mine is 300m depth (approx.) and seams are dipping at 1 in 3 to 1 in 5, these machines cannot be deployed exclusively due to limitation of mobility /flexibility.

ii. These machines also require wider benches which shall require comparatively higher volumes of OB to be removed in the initial stages leading to higher cost of production and imbalance in equipment utilization due to subsequently decreasing OB: coal ratio.

iii. Over and above, marginal grade improvement shall be of much use in this specific case.

In view of the above this option is not recommended.

(d) Shovel & Dumper

Shovel & dumper combination is recommended due to following reasons:

i. In view of multiple seams and equal nos. of inter burden layers to be tackled, an equipment system which is capable of dealing many layers

at a time (flexibility) of operations with the help of smaller units has been recommended as shovel dumper combination.

ii. The quality problem can be handled with the help of hydraulic excavators, which have three-dimensional movement of bucket. They are capable of carrying out selective mining.

iii. Furthermore, to tackle about 15 Mty coal & 66 Mcum of OB from West & East Quarry and 3 Mty and 12 Mm^3 OB from several locations in the mine, comparatively medium and higher size shovels of upto 20 m^3 bucket capacity have been envisaged along with matching capacity of rear dumpers.

iv. Flexibility in operation shall be available due to such equipment system.

In view of the above this option is recommended.

(e) The main objectives of mine development have been

i. To design an economical production of required coal quality;

ii. To minimise transportation distance for coal and waste;

iii. To minimise adverse effects on environment; and

iv. Non - sterilizing the remaining potential reserves for future mining.

5.3.7. System Parameters

Some major system parameters are given in Table-5.7:

Table-5.7

Sl. No.	Particulars	PB-West & East	PB -NW
1.	Maximum Bench Height		
	Top OB	15m	15m
	Coal and Intervening parting	5 - 15m	5 - 15m
2.	Proposed minimum Bench Width		
	Working Bench	50m	40m
	Non-Working Bench Width	25m	25m
3.	Width of the permanent haul road	30m	25m
4.	Width of the temporary transport ramp	10m	10m
5.	Usual height of the spoil dump bench (1Tier)	30m	30m
6.	Width of the active dump bench	30m	30m
7.	Bench Slope		

	OB Bench	70°	70°
	Coal Bench		70°
	Dump bench	37°	37°
	Overall (Ultimate) pit slope	37° (300 m depth)	43° (155m depth)

5.3.8. Drilling and Blasting

For PB West and East Quarry Drilling & Blasting shall be required both in OB and Coal benches before excavation by shovels. Top OB benches shall be developed in horizontal/inclined slicing method. 20 m3 rope shovel along with 170-190 T class of dumpers shall be deployed. A part workload of Top OB shall also be handled by 8.3 cum Hydraulic shovels with 120-150T class of dumpers.

Partings and coal seams shall also be worked in horizontal slices using a combination of hydraulic front end and backhoes machines to minimise intermixing of waste with coal with intermediate benches of 5m.

Thin seams (Seam V T and V B, Seam III T and III B, thin partings between Seam V T and V B, between IV T and IV B, II M and II B shall be ripped, dozed and piled by 850 hp/510kW dozers. The piled material shall be taken by 5 cum wheel loaders, loading onto 120-150T trucks.

Based on the workload of the above sections, it is expected that about 5% of the OB workload and about 10% of the coal workload shall be ripped. The balance material shall have to be blasted.

For PB NW Quarry Drilling & Blasting shall be required both in OB and Coal benches before excavation by shovels. Top OB benches shall be developed in horizontal slicing method. 10 m3 shovel along with 100 T class of dumpers shall be deployed. A part workload of Top OB shall also be handled by 5.5 cum Hydraulic shovels with 60 T class of dumpers.

Partings and coal seams shall also be worked in horizontal slices using a combination of hydraulic front end and backhoes machines to minimise intermixing of waste with coal with intermediate benches of 5m.

Thin seams (Seam V T and V B , Seam III T and III B, thin partings between Seam V T and V B, between IV T and IV B, II M and II B shall be ripped, dozed and piled by 410 hp dozers. The piled material shall be taken by 8-10 cum wheel loaders, loading onto 100 T trucks.

SANJIV KUMAR SINGH
Senior Grade Officer
Gr. SAC (1)/2009-CPAM
Ministry of Coal, Govt. of India

Based on the workload of the above sections, it is expected that about 5% of the OB workload and about 10% of the coal workload shall be ripped. The balance material shall have to be blasted.

5.3.8.1.Drilling & Blasting in Overburden

For PB West and East Quarry top O.B benches shall be of 15 m height where 250 mm Blast hole drill shall be used for drilling blast holes. For thin partings & thick wedges, 160 mm Blast hole drill shall be used.

Blasting pattern depends upon the nature and hardness of rock and varies from mine to mine. Expert agency shall be engaged to design and optimize the blast patterns after field trials.

For PB NW Quarry Top O.B benches shall be of 15 m height where 250 mm Blast hole drill shall be used for drilling blast holes. For thin partings & thick wedges, 160 mm Blast hole drill shall be used.

Blasting pattern depends upon the nature and hardness of rock and varies from mine to mine. Expert agency shall be engaged to design and optimize the blast patterns after field trials.

Suggested pattern is given below in **Table-5.8**

Table-5.8

Pattern of Drilling in Overburden

Sl. No.	Particular	1MTY	3 MTY	10 MTY	15 MTY
1	Average Annual OB including top and parting (mm^3)	6	18	40	66
2	Weekly OB Removal (000 mm^3)	120	350	700	1270
3	Weekly Explosive Required (tonnes)	50	150	300	500
4	Blast Hole Spacing (meters)	8 to 10	8 to 10	8 to 10	8 to 10
5	Blast Hole Burden (meters)	7 to 8	7 to 8	7 to 8	7 to 8
6	Powder Factor assumed (m^3/Kg of explosives)	2.5	2.5	2.5	2.5
7	Type of Explosives	Bulk Explosives slurry/emulsion			

Blast holes shall be suitably drilled to provide sufficient OB to each shovel unit for one week's work load.

5.3.8.2.Drilling & Blasting in Coal

SANJIV KUMAR SINGH
Joint Director (Mining) Planning
Min. Cell: 11(1)/2009-CPAM
Ministry of Coal, Govt. of India

SHRI SANJIV/PAWAN DEV JAMTA
Chief Manager (Mining)
SECL, Bilaspur (C.G.)
SECL, HQ, Sector-2, Bilaspur (C.G.)

For PB West and East Quarry Coal benches planned are of 10m or less in height. 160 mm drill shall be used for drilling blast holes in Coal benches. Blasting shall be done once in 3 days in Coal benches. Field trials shall be required by expert agency for designing best suited pattern in coal.

For PB NW Quarry Coal benches are planned for 10 m or to the thickness of seams, whichever is less. 160 mm drill shall be used for drilling blast holes in Coal benches.. Field trials shall be required by expert agency for designing best suited pattern in coal.

Suggested pattern for blasting in coal is given below in **Table-5.9**

Pattern of Drilling in Coal

Table-5.9

Sl. No.	Particular	1MTY	3 MTY	10 MTY	15 MTY
1	Annual Coal Production (Mt)	1	3	10	15
2	Three days Coal Production considering 330 days a year (000 T)	10	30	100	150
3	Explosives required for 3 days coal production (tones)	1.7	6	17	25
4	Blast Hole Spacing (meters)	6	6	6	6
5	Blast Hole Burden (meters)	5	5	5	5
6	Powder Factor assumed (m^3/Kg of explosives)	6t/kg of explosive	6t/kg of explosive	6t/kg of explosive	6t/kg of explosive
7	Type of Explosives	Bulk Explosives slurry/emulsion			

Effort shall be made to suitably distribute drilling in all coal benches to provide 3 days work load to each shovel.

Powder factor of 0.3 kg/cum for OB and 0.2 kg/cum for coal has been assumed for Explosive consumption.

5.3.8.3. Control of ground vibrations due to blasting

Ground vibration due to blasting shall be controlled by following:

- Reducing the explosive charged per delay
- Reducing the spacing and burden per blast

SANJIV KUMAR SINGH
Recognised Qualified Person
Reg. No. 34011/(15)/2009-CPAM
Govt. of India

PAWAN DEV JAMTA
Deputy General Manager (Opt. Planning)
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

- Reducing the amount of explosive charged per blast
- Proper controlled rock movement during blast by using suitable initiating sequence and delay.

5.3.8.4. Storage of explosive

It is envisaged that the blasting operation shall be carried out by Emulsion/SMS (Site Mix Slurry) and shall be transported to the mine site by the explosive agency located centrally for the North Karanpura coalfield.

For PB-West & East Quarry A cluster of 3T magazines, 3 in nos. (total capacity 9T) is provided for storing detonating fuses, detonators etc. and other explosives for secondary blasting if necessary.

For PB-NW Quarry A 3T magazines, 1 in nos. (Total capacity 3T) is provided for storing detonating fuses, detonators etc. and other explosives for secondary blasting if necessary.

Magazines shall be located as shown in the Surface Master Plan at place generally not interfered with public or employees.

If required additional Magazines capacity shall be provide to improve operational efficiency

5.3.9. Disposal of Waste

5.3.9.1. Overburden Management

For PB West and East Quarry Proposed quarries namely PB West and East are to be opened in Barakar formations, which consist of alluvium soil, sandstone and shale. The thickness of soil/weathered mantle generally varies from 6-18 m. It is commonly dirty-white to reddish-brown in colour and carbonaceous shale generally constitutes bulk of inseam burden.

The overburden / Waste stripping operation shall start first with top soil removal which shall be stacked separately for reclamation purposes from both the quarries. The top soil dump has been planned over the non-coal bearing areas of eastern quarry. The external dumps "A", "B" for PB West Quarry and external dump "D" for PB East have been planned on non-opencastable coal area where quarriable potential is not indicated in the GR.

The OB from WP-1, WP-2 & WP-3 would be dumped externally up to 5th year of quarry operation in external dumps A & B. Whereas the OB from EP1 would

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA

be dumped externally up to 2nd year of quarry operation in external dump D. The assessed OBR (solid) **capacities are 10.3 Mm^3 (Dump A), 67 Mm^3 (Dump B) and 6 Mm^3 (Dump D) respectively which corresponds to loose capacities of 12 Mm^3, 80 Mm^3 and 7.2 Mm^3 respectively for dump A, B & D. About 21 Mm^3 of OB shall be transported to the area earmarked for dump 'C' in the 4th year of operation.** The WP-1, after de-coaling in 7th year, shall accommodate internal dumping. Subsequently, WP-2 and WP-3 shall also be ready to accommodate internal dumping after its de-coaling i.e. 8th year and 10th year respectively. After two years of mining operation in PB (East) quarry no dumping shall be resorted to external dump D.

From 7th to 11th year, OB shall be accommodated in the de-coaled area of WP-1, WP-2 and WP-3. As soon as de-coaled area is created in the floor of Seam-II within WP-4, internal dump shall be formed after leaving a safety distance of 100-150m from advancing lower most coal bench of high wall side of the OCP. This safety distance shall be reduced if step up fault is met while advancing. The high wall face, because of step up fault, shall act as a retaining wall for holding the slope of dump. However, a scientific study shall be undertaken before going for implementation. In addition to it, a safety distance of 100-150 m shall be kept against the haul road to accommodate conveyor system for transporting coal also.

After accommodating OB in the floor of WP-4 (Internal Dumping), balance OB from 12th year onwards shall be accommodated in Dump 'C'. Afterwards the OB shall be accommodated in maximum possible space available within WP-4 but major share of OB shall still have to be accommodated in dump 'C'. The capacity of dump 'C' has been assessed as 563 Mm3. Dump C has been planned over the area where the coal is beyond 300m depth line and thus suitable for exploitation by underground means only for which tentative scheme for mining has been envisaged and included in the Approved Mining Plan. Reserves beyond 300 m depth line are under "Indicated" category and shall be subjected to detailed exploration. As such no coal shall thus get sterilized due to dump 'C'.

ONGC/IOC programme of CBM exploration/exploitation shall be taken care of while dumping in dump 'C'. A corridor of about 40-50m width shall be marked from WP-4 upto the dump 'C' location in consultation with ONGC/IOC and a haul road shall be developed to connect with dump C.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CP/M
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Deputy General Manager (Commercial)
EOC, A-29, Sector-24, Noida-201301 (U.P.)

After exhaustion of WP-4 quarry, East Quarry shall be restarted. Entire remaining OB of East Quarry shall be dumped into voids of West Quarry.

Final stage dump plan, as well as other stage plans also show the location of external/internal dumps in respective stage plans including height as well as volume of dump.

The total non-forest land available in south side of the quarriable block is 15 sq. km in which 7.7 sq. km is available for Dump "C", balance 7.3 Sq.km covers, safety distance of 300m against the high wall side of the OCP, two different locations of pair shafts for approaching coal seams lying at depth, two villages which are densely populated and area kept for further advancing of high wall side of the OCP in future, if need arises. This shall be decided at a later date for extending the quarry beyond 300 m depth line if feasible.

Small area of non-forest land falling on north side of the quarriable block has been proposed to be utilized for infrastructure of the OCP, leaving forest area in which only a magazine is proposed to be located. Most of the forest area is having hilly terrain hence dump formation over the hilly terrain is not feasible.

PB North West quarry is dotted with hillocks on its north , on the west & south side, the block is surrounded by Kerandari 'C' coal block. Above constraints restricts the availability of land outside the block. No space outside the block is envisaged for dumping of overburden. Entire overburden generated during the life of the mine shall be dumped inside the block boundary.

OB generated shall be dumped at the three locations viz. Dump 'A', Dump 'B' and Dump 'C'.

External Dump A'

It is located on the north western side on non-coal bearing area. From 1st to 3rd year of mining operation, OB shall be dumped in 3 benches of 30m each. The OB shall be rehandled at the closing stages of the mine life for reclamation purposes. Total volume accommodated in this dump is 11.00Mm^3 and the area of the dump is 16.23 Ha.

External Dump B':

It is located on the western side of coal bearing zone i.e. Pit – 2.From 6th to 28th year of mining operation, OB shall be dumped in two benches of 30m each. This OB shall be rehandled from 28th year onwards and dumped in the void of Pit-1 and void created by PB west pit. This arrangement shall facilitate release of coal progressively for simultaneous excavation. Entire OB shall be

SANJIV KUMAR SINGH
Recognised Qualified Person
Ministry of Coal, Govt. of India

rehandled for concurrent reclamation. Total volume accommodated at peak in this dump is 49.75Mm³ and the area of the dump is 123 Ha.

External Dump C':

It is located on the south side of the coal bearing zone at the confluence of Khora Nala A & B. From 16th to 19th year of mining operation i.e. for 4 years, OB shall be dumped in three benches of 30m, 20m, and 10m height respectively. The OB shall be re-handled during 40th year to free up the blocked reserves beneath it. Coal below this dump shall be taken alongwith the locked coal of barrier between PB West and this quarry. Total volume accommodated at peak in this dump is 3.50Mm³ and the area of the dump is 10 Ha.

In Pit Dumping:

Above three dumps together accommodate 73.44 Mm³ out of 438 Mm³ generated during the life of the mine. About 9.19Mm³ of OB is utilized for creation of embankment along nala which is accounted in Dump A and remaining 364.79 Mm³ of OB shall be accommodate in in-pit dumping during different stages of mine.

OB removal and its phasing from Pakri Barwadih is given in **Table- 5.10 & Table 5.11** respectively. Percentage dumping of overburden in internal and External dumps are given in **Table 5.12**.

Table 5.10

Year wise proposed OB Removal from PB (Mm³)

Prod. Year	OBR (West Quarry)	Cum OBR (West Quarry)	OBR (East Quarry)	Cum OBR (West Quarry)	Total OBR (West & East)	OBR (NW Quarry)	Cum OBR (NW Quarry)	Total OBR (PB Block)
1	5.94	5.94	2.95	2.95	8.89		0	8.89
2	15.27	21.21	3.05	6	18.32		0	18.32
3	21.12	42.33		6	21.12		0	21.12
4	26.11	68.44		6	26.11	4.08	4.08	30.19
5	25.03	93.47		6	25.03	8.15	12.23	33.18
6	35.51	128.96		6	35.51	11.69	23.92	47.2
7	41.44	170.42		6	41.44	12.03	35.95	53.47
8	41.52	211.94		6	41.52	12.03	47.98	53.55
9	41.5	253.44		6	41.5	12.03	60.01	53.53
10	41.5	294.94		6	41.5	8.22	68.23	49.72

Chapter V - Mining

RQP No. 34011/(15)/2009-CPAM dated 27.09.10

Page V-27

Prod. Year	OBR (West Quarry)	Cum OBR (West Quarry)	OBR (East Quarry)	Cum OBR (West Quarry)	Total OBR (West & East)	OBR (NW Quarry)	Cum OBR (NW Quarry)	Total OBR (PB Block)
11	44	338.04		6	44 -	8.22	76.45	52.22
12	44	382.94		6	44	8.22	84.67	52.22
13	52.76	435.7		6	52.76	8.22	92.89	60.98
14	66.04	501.74		6	66.04	8.22	101.11	74.26
15	66	567.74		6	66	8.22	109.33	74.22
16	66	633.74		6	66	8.22	117.55	74.22
17	66	699.74		6	66	8.21	125.76	74.21
18	66.01	765.75		6	66.01	8.21	133.97	74.22
19	66.01	831.76		6	66.01	8.21	142.18	74.22
20	66.01	897.77		6	66.01	8.21	150.39	74.22
21	66.01	963.78		6	66.01	8.21	158.6	74.22
22	66.01	1029.79		6	66.01	8.21	166.81	74.22
23	66	1095.79		6	66	8.22	175.03	74.22
24	66	1161.79		6	66	8.23	183.26	74.23
25	31.2	1192.99	31.85	37.85	63.05	8.23	191.49	71.28
26	28	1218.99	36.95	74.8	82.95	8.23	199.72	71.18
27	19.5	1238.49	46.5	121.3	66	8.23	207.95	74.23
28		1238.49	66	187.3	66	9.17	217.12	75.17
29		1238.49	66	253.3	66	11.36	228.48	77.36
30		1238.49	66	319.3	66	11.36	239.84	77.36
31		1238.49	66	385.3	66	11.36	251.2	77.36
32		1238.49	66	451.3	66	11.36	262.56	77.36
33		1238.49	66	517.3	66	11.37	273.93	77.37
34		1238.49	66	583.3	66	11.43	285.36	77.43
35		1238.49	66	649.3	66	11.43	296.79	77.43
36		1238.49	66	715.3	66	11.43	308.22	77.43
37		1238.49	66	781.3	66	11.43	319.65	77.43
38		1238.49	66	847.3	66	10.32	329.97	76.32
39		1238.49	12.99	860.29	12.99	10.04	340.01	23.03
40						9.00	349.01	9
41						9.00	358.01	9
42						9.00	367.01	9
43						9.00	376.01	9
44						9.00	385.01	9
45						9.00	394.01	9
46						9.00	403.01	9
47						9.00	412.01	9
48						8.50	420.51	8.5
49						7.00	427.51	7

SANJIV KUMAR SINGH
Recognised Qualified Person
Regn. 34011(15)/2009-CPAM
Ministry of Coal, Govt. of India

Prod. Year	OBR (West Quarry)	Cum OBR (West Quarry)	OBR (East Quarry)	Cum OBR (West Quarry)	Total OBR (West & East)	OBR (NW Quarry)	Cum OBR (NW Quarry)	Total OBR (PB Block)
50						5.75	433.26	5.75
51						3.50	436.76	3.5
52						1.48	438.24	1.48
Total	1238.49		860.29		2098.78	438.24		2537.02

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (सी.एम.पी.)
Dep. General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

Table 5.11
Phased overburden dumping /waste disposal and capacity of dumps

(in Mm³)

Particulars	PB WEST AND EAST										PB NW								PB GRAND TOTAL
	External Dump (Solid)					Internal Dump (Solid)					External				Internal				
	A	B	C	D	SUB TOTAL	A (Extn.)	B (Extn.)	WP-4	SUB TOTAL	Total (West&East)	DUMP 'A'	DUMP 'B'	DUMP 'C'	Sub Total	DUMP 'A' Extn.	WP-4	Sub Total	TOTAL (NW)	(Solid)
1- 5 yrs																			
WP1	10.33	6.55			16.88					16.88									16.88
WP2		40.00			40.00					40									40.00
WP3		8.23	21.00		29.23					29.23									29.23
WP4		7.36			7.36					7.36									7.36
EP1				8.00	8.00					8									8.00
PIT-1											9.06			9.06	3.15		3.15	12.23	12.23
PIT-2																			
6 - 10 yrs																			
WP1						9.36			9.36	9.36									9.36
WP2		4.86			4.86	38.38			38.38	43.24									43.24
WP3						33.15			33.15	33.15									33.15
WP4						115.71			115.71	115.71									115.71
PIT-1											6.81	4.00		10.8	45.39		45.39	56	56.00
PIT-2																			

TANJIV KUMAR SINGH
Enlarged Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10

(in Mm³)

Particulars	PB WEST AND EAST										PB NW								PB GRAND TOTAL
	External Dump (Solid)					Internal Dump (Solid)					External				Internal				
	A	B	C	D	SUB TOTAL	A (Extn.)	B (Extn.)	WP-4	SUB TOTAL	Total (West&East)	DUMP 'A'	DUMP 'B'	DUMP 'C'	Sub Total	DUMP 'A' Extn.	WP-4	Sub Total	TOTAL (NW)	(Solid)
11 - 15 yrs																			
WP 4			169.00		169.00		130.8		130.8	299.8									299.80
PIT-1											3.00	11.00		14	27.10		27.1	41.1	41.10
PIT-2																			
16 - 20 yrs																			
WP 4			206.00		206.00	37.00	2.00	79.00	118	324									324.00
PIT-1															10.93		10.93	10.93	10.93
PIT-2											1.50	13.00	2.00	16.5	13.63		13.63	30.13	30.13
21 - 25 yrs																			
WP 4 + East Quarry			167.00		167.00			163.05	163.05	330.05									330.05
PIT-1																			
PIT-2												12.00	1.50	13.5	27.60		27.6	41.1	41.10
26 - 30 yrs																			
PIT-1																			
PIT-2												8.75		8.75	12.46	27.14	39.6	48.35	48.35

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10.

(in Mm³)

Particulars	PB WEST AND EAST										PB NW								PB GRAND TOTAL (Solid)
	External Dump (Solid)					Internal Dump (Solid)					External				Internal				
	A	B	C	D	SUB TOTAL	A (Extn.)	B (Extn.)	WP-4	SUB TOTAL	Total (West&Eas t)	DUMP 'A'	DUMP 'B'	DUMP 'C'	Sub Total	DUMP 'A' Extn.	WP-4	Sub Total	TOTAL (NW)	
WP 4 + East Quarry								330.00	330	330									330.00
31- 35 yrs																			
East Quarry								330.00	330	330									330.00
PIT-1																			
PIT-2																			
36 - 39 yrs								184.00	184	184		1.00		1	21.72	34.23	55.95	56.95	56.95
East Quarry																			184.00
PIT-1																			
PIT-2																			
40 - 53 yrs															22.66	20.56	43.22	43.22	43.22
PIT-1																			
PIT-2																			
															0.00	98.22	98.22	98.22	98.22
Total	10.33	67.00	563.00	6.00	646.33	233.60	132.90	1086.05	1452.45	2098.78	20.19	49.75	3.50	73.44	184.84	179.55	364.79	438.23	2537.01

SANJIV KUMAR SINGH
Recognised Qualified Person
Regd. No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10

Table 5.12
Percentage Overburden Dumping

	PB West & East (Mm3)	PB NW(Mm^3)	PB (Mm^3)	PB West an East (%)	PB NW (%)	PB (%)
External Dump	619.00	73.44	692.44	29.49%	16.76%	27.29%
Internal Dump	1479.83	364.79	1844.62	70.51%	83.24%	72.71%
Total	2098.83	438.23	2537.06	100.00%	100.00%	100.00%

5.3.9.2.Top Soil Management

For PB-WEST & EAST Quarry during Operating life of mine 5.81 Mm^3 of top soil shall be generated. This figure is arrived at by considering 1 m (approx.) thickness of top soil, as because unlike PB-NW Quarry considerable deposition has not taken place in the block.

For the initial 5 years of Mining operation, top soil shall be stacked at a designated location over coal bearing area, as shown in **Surface Master Plan**. Estimated land requirement for stacking is 1 Ha. The requirement of land shall cease to operate from 10th year onwards as because scrapped top soil shall be spread over the dump for land reclamation.

Stacking of top soil shall be achieved in two tiers. The bottom tier shall be of 3m in height while top tier shall be of 2m or shall below height not exceeding the limit as per prescribed norms.

Stack of top soil shall be grassed to retain fertility if required. Besides this, top soil stack them shall be made use of concurrent filling without bringing the scrapped top soil to the stack.

For PB-NW Quarry during Operating life of mine 5.81 Mm^3 of top soil shall be generated. This figure is arrived at by considering 1.5m (approx.) thickness of top soil, as because presence of ravines and surrounding nalas considerable deposition has taken place in the block.

For the initial 5 years of Mining operation, top soil shall be stacked at a designated location over Pit – 2, as shown in **Plate No.5**. Estimated land requirement for stacking is 1 Ha. The requirement of land shall cease to operate from 10th year onwards as because scrapped top soil shall be spread over the dump for land reclamation.

Stacking of top soil shall be achieved in two tiers. The bottom tier shall be of 3m in height while top tier shall be of 2m or shall below height not exceeding the limit as per prescribed norms.

Top soil scrapping: Scrappers shall be deployed to scrap the top soil off the surface. With the help of front end loader, top soil shall be loaded on the tripper of 10T capacity and transported to top soil stock yard. In the event of non-stacking system, top soil shall be transported directly to the desired location.

Top soil spreading: Front end loader shall load on to the trippers and transported to desired location and spread with the help of dozer/graders.

Stack of top soil shall be grassed to retain fertility if required. Besides this, top soil stack them shall be made use of concurrent filling without bringing the scrapped top soil to the stack. Year wise quantity schedule of management of top soil excavated and spread is given in **Table 5.13** and Summerised data for Top Soil Management is given in **Table 5.14.**

Table 5.13

Management of top soil

Year	PB West and East				PB-NW			
	Area of TS removal (Ha)	Prog. Top Soil (Mm^3)	Prog. Spread (Ha)	prog. Spread (Mm^3)	Area of TS removal (Ha)	Prog. Top Soil (Mm^3)	Prog. Spread (Ha)	Prog. Spread (Mm^3)
P-1	70.88	0.57	0.00	0.00	0.00	0.00	0.00	0.00
P-2	88.60	0.71	0.00	0.00	0.00	0.00	0.00	0.00
P-3	106.32	0.85	0.00	0.00	0.00	0.00	0.00	0.00
P-4	124.04	0.99	0.00	0.00	15.48	0.23	0.00	0.00
P-5	141.76	1.13	0.00	0.00	19.35	0.29	0.00	0.00
P-6	159.48	1.28	5.32	0.07	23.22	0.35	0.00	0.00
P-7	177.20	1.42	5.32	0.07	27.09	0.41	0.00	0.00
P-8	35.44	0.28	5.32	0.07	30.96	0.46	0.00	0.00
P-9	35.44	0.28	5.32	0.07	34.83	0.52	1.00	0.03
P-10	35.44	0.28	5.32	0.07	38.70	0.58	1.00	0.03

SANJAY KUMAR SINHA
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

ECIL-HYDERABAD DEV JANTA
Deputy General Manager (Dy. Parivar)
ECIL, A-BA, Sector-24, Noida
ECIL-HYDERABAD (U.P.)

	PB West and East				PB-NW			
Year	Area of TS removal (Ha)	Prog. Top Soil (Mm^3)	Prog. Spread (Ha)	prog. Spread (Mm^3)	Area of TS removal (Ha)	Prog. Top Soil (Mm^3)	Prog. Spread (Ha)	Prog. Spread (Mm^3)
P-11	35.44	0.28	5.32	0.07	7.74	0.12	1.00	0.03
P-12	35.44	0.28	10.63	0.14	7.74	0.12	1.00	0.03
P-13	35.44	0.28	10.63	0.14	7.74	0.12	1.00	0.03
P-14	35.44	0.28	10.63	0.14	7.74	0.12	1.00	0.03
P-15	35.44	0.28	10.63	0.14	7.74	0.12	1.00	0.03
P-16	35.44	0.28	10.63	0.14	7.74	0.12	1.00	0.03
P-17	35.44	0.28	15.95	0.21	7.74	0.12	1.00	0.03
P-18	35.44	0.28	15.95	0.21	7.74	0.12	2.00	0.06
P-19	35.44	0.28	15.95	0.21	7.74	0.12	2.00	0.06
P-20	35.44	0.28	15.95	0.21	7.74	0.12	3.00	0.09
P-21	35.44	0.28	15.95	0.21	7.74	0.12	3.00	0.09
P-22	35.44	0.28	15.95	0.21	7.74	0.12	3.00	0.09
P-23	35.44	0.28	15.95	0.21	7.74	0.12	3.00	0.09
P-24	35.44	0.28	21.26	0.28	7.74	0.12	3.00	0.09
P-25	35.44	0.28	21.26	0.28	7.74	0.12	3.00	0.09
P-26	35.44	0.28	31.90	0.43	7.74	0.12	3.00	0.09
P-27	26.58	0.21	31.90	0.43	7.74	0.12	4.00	0.12
P-28	26.58	0.21	31.90	0.43	7.74	0.12	4.00	0.12
P-29	26.58	0.21	31.90	0.43	7.74	0.12	4.00	0.12
P-30	26.58	0.21	31.90	0.43	5.81	0.09	4.00	0.12
P-31	26.58	0.21	31.90	0.43	5.81	0.09	4.00	0.12
P-32	17.72	0.14	53.16	0.71	5.81	0.09	4.00	0.12
P-33	17.72	0.14	53.16	0.71	5.81	0.09	4.00	0.12
P-34	17.72	0.14	53.16	0.71	5.81	0.09	4.00	0.12
P-35	8.86	0.07	74.42	0.99	3.87	0.06	4.00	0.12
P-36	8.86	0.07	74.42	0.99	3.87	0.06	4.00	0.12
P-37	8.86	0.07	74.42	0.99	3.87	0.06	4.00	0.12
P-38	8.86	0.07	74.42	0.99	1.94	0.03	6.00	0.17
P-39	8.86	0.07	74.42	0.99	1.94	0.03	6.00	0.17
P-40	0.00	0.00	53.16	0.71	1.94	0.03	6.00	0.17
P-41	0.00	0.00	21.26	0.28	1.94	0.03	6.00	0.17
P-42	0.00	0.00	26.58	0.35	1.94	0.03	6.00	0.17
P-43	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.17
P-44	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.17

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जगदीश/PAWAN DEV JAMNA
Deputy General Manager
EOC, A-4A, Sector-24, Noida-201301 (U.P.)

Year	PB West and East				PB-NW			
	Area of TS removal (Ha)	Prog. Top Soil (Mm^3)	Prog. Spread (Ha)	prog. Spread (Mm^3)	Area of TS removal (Ha)	Prog. Top Soil (Mm^3)	Prog. Spread (Ha)	Prog. Spread (Mm^3)
P-45	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.17
P-46	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.23
P-47	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.23
P-48	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.23
P-49	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.29
P-50	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.29
P-51	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.29
P-52	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.23
P-53	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.23
P-54	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.06
P-55	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.06
TOTAL	1772	14.176	1063.2	14.176	387.02	5.8053	200	5.81

Table 5.14
Summerised data for Top Soil Management is given in

Sl. No.	Particular	PB West & East	PB -NW
1	Total Area disturbed (Ha)	1772	387.02
2	Thickness of Top Soil Cover (m)	0.8	1.5
3	Volume of Top Soil (Mm3)	14.176	5.8053
4	Commencement of T/Soil Removal	P-1	P-4
5	Storage period in Years	5	5
6	Reclaimed area through Spread (Ha)	1063.2	200
7	Thickness of Top Soil in Reclaimed Area (m)	1.33	2.90

5.3.10. Projected Production Plan/Calendar Program

The Pit-Wise planned production programme from PB West quarry, PB East Quarry and PB North-West, is given in **Table 5.15**. Calander Programme is given in **Table-5.16**

SANJIV KUMAR SINGH
Competent Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Deputy General Manager (Corporate)
EOC, A/8A, Sector-24, Noida-201301 (U.P.)

Table 5.15

Pit-Wise production programme (Coal in Mt)

Year	PB West Quarry					PB East Quarry		PB NW			Total
	WP-1	WP-2	WP-3	WP-4	Sub Total PB-West	EP1	Sub Total PB-East	PIT-1	PIT-2	Sub Total PB-NW	
1st Yr	0.4	1.2	0.74		2.34	0.8	0.8				3.14
2nd Yr	0.8	2.4	1.97		5.17	1.1	1.1				6.27
3rd Yr	1.2	3.6	2.98	0.7	8.48		0				8.48
4th Yr	1.2	3.6	3.5	1.2	9.5		0	0.5		0.5	10
5th Yr	1.2	3.6	2.5	2.7	10		0	1		1	11
6th Yr	1	4.8	1.5	2.7	10		0	2		2	12
7th Yr	0.85	4.79	1.5	2.86	10		0	3		3	13
8th Yr		4.48	1.5	4.03	10.01		0	3		3	13.01
9th Yr			1.5	8.5	10		0	3		3	13
10th Yr			0.82	8.18	9		0	3		3	12
11th Yr				12	12		0	3		3	15
12th Yr to 24th Yr.				15	15		0	3		3	18
25th Yr				11	11	4	4	3		3	18
26th Yr				7	7	8	8	3		3	18
27th Yr				1.21	1.21	13.79	13.79	3		3	18
28th Yr						15	15	2.1	0.9	3	18
29th Yr to 37th Yr						15	15		3	3	18
38th Yr						10	10		3	3	13
39th Yr						3.99	3.99		3	3	6.99
40th Yr to 50th Yr							0		3	3	3
51st Yr									2	1.28	1.28
52nd Yr									1.46	1.28	1.28

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2005-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Senior Manager (Geology)
NTPC LIMITED

Table 5.16
Calendar Program of Pakri Barwadih

Productio n Years	Coal Production (Mt)					OB Removal (Mm3)					Strip Ratio (m3/t)		
	West Quarry	East Quarry	PB West & East	NW Quarry	Total from PB	West Quarry	East Quarry	PB West & East	NW Quarry	Total PB Mm3)	West & East Quarry	NW Quarry	PB
1	2.34	0.8	3.14		3.14	5.94	2.95	8.89		8.89	2.83		2.83
2	5.17	1.1	6.27		6.27	15.27	3.05	18.32		18.32	2.92		2.92
3	8.48		8.48		8.48	21.12		21.12		21.12	2.49		2.49
4	9.5		9.5	0.5	10	26.11		26.11	4.1	30.21	2.75	8.20	3.02
5	10		10	1	11	25.03		25.03	8.2	33.23	2.50	8.20	3.02
6	10		10	2	12	35.51		35.51	11.7	47.21	3.55	5.85	3.93
7	10		10	3	13	41.44		41.44	12	53.44	4.14	4.00	4.11
8	10		10	3	13	41.52		41.52	12	53.52	4.15	4.00	4.12
9	10		10	3	13	41.5		41.5	12	53.5	4.15	4.00	4.12
10	10		10	3	13	41.5		41.5	8.2	49.7	4.15	2.73	3.82
11	12		12	3	15	44		44	8.2	52.2	3.67	2.73	3.48
12	15		15	3	18	44		44	8.2	52.2	2.93	2.73	2.90
13	15		15	3	18	52.76		52.76	8.2	60.96	3.52	2.73	3.39
14	15		15	3	18	66.04		66.04	8.2	74.24	4.40	2.73	4.12
15	15		15	3	18	66		66	8.2	74.2	4.40	2.73	4.12
16	15		15	3	18	66		66	8.2	74.2	4.40	2.73	4.12
17	15		15	3	18	66		66	8.2	74.2	4.40	2.73	4.12
18	15		15	3	18	66.01		66.01	8.2	74.21	4.40	2.73	4.12
19	15		15	3	18	66.01		66.01	8.2	74.21	4.40	2.73	4.12
20	15		15	3	18	66.01		66.01	8.2	74.21	4.40	2.73	4.12
21	15		15	3	18	66.01		66.01	8.2	74.21	4.40	2.73	4.12
22	15		15	3	18	66.01		66.01	8.2	74.21	4.40	2.73	4.12
23	15		15	3	18	66		66	8.2	74.2	4.40	2.73	4.12
24	15		15	3	18	66		66	8.2	74.2	4.40	2.73	4.12

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10.

Production Years	Coal Production (Mt)					OB Removal (Mm3)					Strip Ratio (m3/t)		
	West Quarry	East Quarry	PB , West & East	NW Quarry	Total from PB	West Quarry	East Quarry	PB West & East	NW Quarry	Total PB Mm3)	West & East Quarry	NW Quarry	PB
26	11	4	15	3	18	31.2	31.85	63.05	8.2	71.25	4.20	2.73	3.96
26	7	8	15	3	18	26	36.95	62.95	8.2	71.15	4.20	2.73	3.95
27	1.21	13.79	15	3	18	19.5	46.5	66	8.2	74.2	4.40	2.73	4.12
28		15	15	3	18		66	66	9.2	75.2	4.40	3.07	4.18
29		15	15	3	18		66	66	11.4	77.4	4.40	3.80	4.30
30		15	15	3	18		66	66	11.4	77.4	4.40	3.80	4.30
31		15	15	3	18		66	66	11.4	77.4	4.40	3.80	4.30
32		15	15	3	18		66	66	11.4	77.4	4.40	3.80	4.30
33		15	15	3	18		66	66	11.4	77.4	4.40	3.80	4.30
34		15	15	3	18		66	66	11.4	77.4	4.40	3.80	4.30
35		15	15	3	18		66	66	11.4	77.4	4.40	3.80	4.30
36		15	15	3	18		66	66	11.4	77.4	4.40	3.80	4.30
37		15	15	3	18		66	66	11.4	77.4	4.40	3.80	4.30
38		10	10	3	13		66	66	10.3	76.3	6.60	3.43	5.87
39		3.99	3.99	3	6.99		12.99	12.99	10.04	23.03	3.26	3.35	3.29
40				3	3				9.00	9		3.00	3.00
41				3	3				9.00	9		3.00	3.00
42				3	3				9.00	9		3.00	3.00
43				3	3				9.00	9		3.00	3.00
44				3	3				9.00	9		3.00	3.00
45				3	3				9.00	9		3.00	3.00
46				3	3				9.00	9		3.00	3.00
47				3	3				9.00	9		3.00	3.00
48				3	3				8.50	8.5		2.83	2.83
49				3	3				7.00	7		2.33	2.33
50				3	3				5.75	5.75		1.92	1.92

SANJIV KUMAR SINGH
Recognised Qualified Person
Vide 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10

Production Years	Coal Production (Mt)					OB Removal (Mm3)					Strip Ratio (m3/t)		
	West Quarry	East Quarry	PB West & East	NW Quarry	Total from PB	West Quarry	East Quarry	PB West & East	NW Quarry	Total PB Mm3)	West & East Quarry	NW Quarry	PB
51				2	2				3.50	3.5		1.75	1.75
52				1.46	1.46				1.48	1.48		1.01	1.01
Total	311.70	191.68	503.38	138.96	642.34	1238.49	860.29	2098.78	437.97	2536.75	4.17	3.15	3.95

SANJAY KUMAR SINGH
Recognised Qualified Person
Regn. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

5.3.11. Equipment Requirement

5.3.11.1 Design criteria

The design criteria adopted is as follows:

- Number of annual working days : 330
- Number of shifts /day : 3
- Duration of shift hours : 8

The number of equipment has been calculated on the basis of availability and utilization norms adopted for coal mines by CMPDI and is presented below in **Table No 5.17** for shovels and dumpers.

Table 5.17
Norms of Equipment Availability and Utilization

Sl. No.	Equipment	Availability	Utilization
1	Shovels	80%	58%-61%
2	Dumpers	67%-72%	50%-54%

5.3.11.2 CATEGORY OF EXCAVATION

Following categories of excavation have been assumed.

i)	Top soil	Cat. I
ii)	Overburden	50%Cat.III + 50%Cat.IV
iii)	Coal	Cat. III

5.3.11.3 PRODUCTIVITY OF EXCAVATORS

Productivity of excavators is presented in **Table-5.18**. Productivity of dumpers is presented in **Table-5.19**

Table 5.18
Productivity of excavators

Sl. No.	Description	Productivity (Mm3)
A	OVERBURDEN	
1	5.5m3 Hydraulic shovel with 60T rear dumper	1.5

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10

Page 1 of 11

पवन देव जागरण/PAWAN DEV JAGRAN
Sector-24, Noida-201301 (U.P.)

Sl. No.	Description	Productivity (Mm3)
2	10m3 Hydraulic shovel with 100T rear dumper	2.6
3	20 m3 rope shovel + RD 170 T	4.015
4	10 m3 rope shovel + RD 120 T	2.08
5	8.3 m3 hyd shovel + RD 120 T	2.18
B	COAL	
1	8.3 m3 hyd. shovel + RD 120 T	2.2
2	4.6 m3 hyd. shovel + RD 50 T	1.18
3	5.5m3 Hydraulic shovel with 60T rear dumper	1.65

Table-5.19

Productivity of dumpers for Lead

Different Combination	1 Km	1.5 Km	2 Km	2.5 Km	3 Km	3.5 Km	4 Km	4.5 Km
RD 170 T + 20 m3 shovel	0.7584	0.6398	0.5671	0.5181	0.4696	0.4322	0.4252	0.3852
RD 120+ 10m3 rope shovel	.3016	.4288	.3835	.3524	.3214	.2972	.275	.262
RD 120 T+ 8.3 m3 hyd. shovel	.566	.4845	.433	.398	.363	.336	.311	.296
RD 50 T + 4.5 m3 shovel	0.2128	0.1801	0.1603	0.1471	0.1335	0.1232	0.120	0.112
5.5m3 Hydraulic shovel with 60T rear dumper	0.2312	0.1971	0.1762	0.1623	0.1477	0.1365	0.143	
10m3 Hydraulic shovel with 100T rear dumper	0.4456	0.3758	0.3341	0.3062	0.2777	0.2559	0.2386	

The requirement of dumpers has been worked based on the annual workload, deployment of equipment, lead assessed from the stage plan of pit operations for 1st to 5th yr, 10th yr, , 20th yr, 30th yr, 40th yr and final stage along with dumping plan

It is suggested that the dumpers deployed in coal and OB to a have suitable dump bodies for optimum utilisation of the dumper payload.

5.3.11.4 Equipment selection for PB West and PB East Quarries.

The geo-mining conditions warrant that the equipment deployed in partings and coal to alternate between the coal seam and partings. Thus, in the

SANJIV KUMAR SINGH
Competent Person
PAWAN DEV
Dy. Chief Manager (Mining)
For CI of REMCL / NTPC LIMITED
SOC. A-8A, Sector-24, Noida-201301 (U.P.)

process of selection of mining equipment, two major equipment combinations have been proposed. One for Top OB and the other for the coal seams and the partings.

20 cum Electric Rope Shovels operating with 170T-190T class of dumpers shall be deployed in Top OB and 10 cum Electric/Diesel Hydraulic shovel/ backhoe operating with 100-120T class of dumpers in partings and Coal. The size has been decided to meet the twin objective of effective deployment, optimal utilization of the equipment and at the same time keeping the fleet size to manageable levels. This equipment size shall also offer a choice from a variety of vendors during the procurement and facilitate better inventory management.

In the initial years, the mine shall be opened by 10 cum hydraulic shovel/backhoe working with 100-120 T rear dumpers. This is proposed, as this combination shall have much smaller lead time for deployment. Deployment of 20 cum Electric rope shovels shall start as soon as the load for top OB increases.

A part of the Top OB workload is also proposed to be handled by 10 cum hydraulic shovel/backhoe operating with 100-120T rear dumpers. This has been done in years where there isn't enough consistent workload for a deployment of a new 20 cum rope shovel. This gives flexibility to the operations and also ensures better equipment utilization.

It is also proposed to work out the thin seams/partings with the help of high capacity ripper dozers (510hp).

5.3.11.5 Equipment selection for PB NW Quarries.

The geo-mining conditions warrant that the equipment deployed in partings and coal to alternate between the coal seam and partings. Thus, in the process of selection of mining equipment, two major equipment combinations have been proposed. One for Top OB and the other for the coal seams and the partings.

10 cum Electric Rope Shovels operating with 100T class of dumpers shall be deployed in Top OB and 5.5 cum Electric/Diesel Hydraulic shovel/ backhoe operating with 60 T class of dumpers in partings and Coal. The size has been decided to meet the twin objective of effective deployment, optimal utilization of the equipment and at the same time keeping the fleet size to manageable levels. This equipment size shall also offer a choice from a variety of vendors during the procurement and facilitate better inventory management.

In the initial years, the mine shall be opened by 5.5 cum hydraulic shovel/backhoe working with 60 T rear dumpers. This is proposed, as this

SANJIV KUMAR SINGH
Assistant Director (Mines)
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10.

पवन देव जामटा/PAWAN DEV JAMTA
Deputy General Manager (Mining)
भूतत्व एवं खनन निगम लिमिटेड/NMDC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

combination shall have much smaller lead time for deployment. Deployment of 10 cum Electric rope shovels shall start as soon as the load for top OB increases.

A part of the Top OB workload is also proposed to be handled by 5.5 cum hydraulic shovel/backhoe operating with 60T rear dumpers. This has been done in years where there isn't enough consistent workload for a deployment of a new 10 cum hydraulic shovel. This gives flexibility to the operations and also ensures better equipment utilization.

It is also proposed to work out the thin seams/partings with the help of high capacity ripper dozers (410hp). These machines shall rip the material, doze to form a heap to be handled by 10 cum front end loaders with 100 T class dumpers.Proposed.

5.3.11.6 Proposed HEMM

Size of HEMM are minimum and may vary in size as per requirement of site conditions. Proposed list of HEMM is given in **Table 5.20.**

Table 5.20
Proposed list of HEMM FOR PB WEST AND PB EAST

PB WEST AND EAST				PB-NW			
Sl. No.	Equipment	Size /capacity	Nos.	Sl. No.	Equipment	Size /capacity	Nos.
COAL							
1	Elec. Hydraulic shovel	4.5 m³	9	1	Diesel Hydraulic Shovel with Backhoe attachment	5.5 m³	2
2	Rear Dumper	40-60 T	77	2	Rear Dumper	60 T	18
3	RBH Drill	160 mm	15	3	RBH Drill (Electric)	160 mm	2
4	Track Dozer	310 kW	15	4	Dozer with Ripper attachments	410 HP	2
5	Back hoe hyd shovel	2.8m³	8	5	Wheel Dozer	410 HP	1
6	Wagon drill	100mm	3	6	Coal Tippers (Coal Body)	20T	25
TOP OB/PATING/INTERBURDEN							
1	Elec. Rope Shovel	20 m³	7	1	Hydraulic Shovel	5.5 m³	3
2	Elec. Rope Shovel	10 m³	5	2	Hydraulic Shovel	10.0 m³	3
3	Elec. Hydraulic shovel	6.3 m³	14	3	Rear Dumper	60 T	20

SANJIV KUMAR SINGH
Recognised Qualified Person
Reg. 34011(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Chief General Manager (Commercial)
NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PB WEST AND EAST				PB-NW			
Sl. No.	Equipment	Size /capacity	Nos.	Sl. No.	Equipment	Size /capacity	Nos.
5	Rear Dumper	170-190 T	78	4	Rear Dumper	100 T	18
6	Rear Dumper	120-150 T	152	5	RBH Drill (Electric)	250 mm	3
7	RBH Drill	250 mm	24	6	Dozer with ripper attachments	410 HP	4
8	RBH Drill	160mm	10	7	Dozer with ripper attachments	850HP	4
9	Track Dozer	310 kw	30				
COMMON /AUXILIARY EQUIPMENT							
1	Dozer with Ripper	510 kW	5	1	Water Sprinkler (wide spray system)	70 KL	3
2	Motor Grader	285 kW	14	2	Truck Mounted DTH Drill	100-120mm	1
3	Wheel Loader	5 m³	4	3	Mobile Rough Terrain Crane	70T	1
4	Diesel crane	75 T	2	4	R. T. Crane	30T	1
5	Hyd. Rough terrain crane	30 T	5	5	R. T. Crane	8T	
6	Hyd. Rough terrain crane	12 T	6	6	F.E.Loader	10 Cum	1
7	Diesel Hyd. Pickup Crane	8 T	6	7	Hydraulic shovel with Backhoe (Diesel)	1.2-2.2 m³	1
8	Wheel Dozer	288 kW	6	8	Wagon drill	100-120mm	1
9	Water Sprinkler	28 kL	14	9	Diesel Browser	16KL	1
10	Tyre Handler		4	10	Rock Breaker		1
				11	Fire Tender		1
				12	Cable Handler		1
				13	Tyre Handler		1
				14	Topping trucks	10 T	6
				15	Maintenance Van		1
				16	Heavy Duty Towing truck		1
Haul Road Equipment							
				1	Grader	280 HP	2
				2	Vibratory Compactor	30TH	1
				3	Wheel Dozer	460 HP	1
Reclamation							
				1	F.E Loader	10 m³	1
				2	Water Sprinkler (wide spray system)	28 KL	2

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10

PAWAN DEV JAMTA
Senior Manager (Mining)
NTPC LIMITED
A-8A, Sector-24, Noida-201301 (U.P.)

PB WEST AND EAST				PB-NW			
Sl. No.	Equipment	Size /capacity	Nos.	Sl. No.	Equipment	Size /capacity	Nos.
				3	Rear Dumper	60T	3
				4	Dozer (With ripper Attachment)	410 HP	1
				5	Farm Track/tractor with trolley		1

In the initial two years of mining operation of PB East quarry, separate set of smaller equipment are proposed. After completion of the said period these equipment shall be disposed of suitably. The proposed list of major equipment are mentioned in **Table 5.21.**

Proposed list of HEMM FOR PB EAST FOR INITIAL TWO YEARS

Table 5.21

Sl No	Equipment Type	Size/Cap	Population
1	Shovel	4.5 Cum	3
2	Dumper	35 T	30
3	Dozer	320 Hp	3
4	Drill Machine	160 mm	3
5	Grader	145 Hp	1
6	Water sprinkler	28 Kl	1

The size and the equipment indicated above may vary depending upon their market availability and technology upgaradtion.

5.3.12. Annual Capacity and Life of Quarry

The life of the PB OCP is estimated as 52 years. No construction period is considered. PB-NW quarry shall commence mining operation on 4th year. After 39 year peak capacity of mine shall be 3 MTPA and shall be limited to extraction of coal of barrier.

Annual peak capcity and life quarrywise and for PB mine is given in **Table 5.22**

Table 5.22
Annual Capacity and Life of Quarry

Sl. No.	Quarry	From	To	Life	Capacity (MTPA)
1	PB-West	P-1	P-27	27	15
2	PB-East initial	P-1	P-2	2	1

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10.

DEV JAMTA
DGM (CP&PA)
EDC, A&A, Sector-24, Noida-201301 (U.P.)

3	PB-East Later	P-25	P-39	15	15
4	PB-NW	P-4	P52	48	3
	PB Mine	**P-1**	**P-52**	**52**	**18**

5.3.13. Quarry Drainage

5.3.13.1 Quarry Dewatering

Sufficient numbers of inpit sumps as required PB West and East Quarry and all necessary in pit drainage channels to facilitate pit dewatering to comply with the Water Management Plan. A suitable number of large mining pumps (some mounted on pontoons) shall ensure adequate capacity to pump water from the mine during and after the "monsoon" season. The mine shall be so designed that it allows all water falling on the working areas to be directed to major sumps located strategically at the bottom of each pit. During very high rainfall periods production focus shall be on the drier upper benches.

Sufficient temporary and permanent inpit and expit pipework and drainage channels shall be provided for to ensure adequate dewatering can take place both during and after the monsoon period. Annual planning shall ensure that mining from lower benches is minimised during the monsoon so that disruptions to production due to flooded lower areas of the pit can be minimised also. Time to dewater the lower areas of the pit during and after the monsoon season is allowed for in the mine plan. Lower areas of the mine shall be mined during the dryer months.

5.3.13.2 Water Management Plan

The main areas of water management in the Quarry shall be:-

- Surface water flow around the mine through Garland Drains
- In pit accumulation caused by intense rainfall during the monsoon season and plans for managing this rainfall by utilising sumps, diversion ditches and pumps
- Groundwater flow into the pit and the construction, maintenance and operation of mine dewatering plant to handle this groundwater.
- Non potable water required for construction and mining services around the mine site including fire protection.
- Potable water required for drinking purposes at both the mine site and the colony.
- Discharge of decanted water into the seasonal streams which traverse the mining lease.

5.3.13.3 Surface Water Flow

SANJIV KUMAR SINGH
Recognised Qualified Person
CPAM
Govt. of India

401

NTPC had appointed Central Water and Power Research Station (CWPRS), Pune for conducting an area-drainage study. As recommended by CWPRS, the central nallah flowing across PB block, shall be tapped at the northern boundary of the block to transfer the flow to the eastern and western nallas through diversion canals.

Water flow from this canal is directed towards both the Lathorva Nallah and Hardara (Pakwa) Nallah. Additionally collector and diversion drains shall be constructed around the outside of the pit, predominantly along the base of the waste dumps to intercept over land flow and water shed from the waste dumps. This captured water shall be diverted via the drains and sediment ponds to existing nallahs to take the water away from the mine. All collection and diversion drains shall be bunded to increase drain capacity. The alignment of the proposed canal and layout of these drains and sediment ponds are shown in the "Surface Master Plan".

Garland drains all around the periphery of the excavation zone shall be dug with the help of low capacity backhoe. This garland drain shall be connected to nearest natural nala. Such garland drains and their inter-connection shall be ever shifting and unlined. Preferably, 2m wide and 1m deep cross section is presumed to carry rain water to the nearest natural drainage.

Adequate sump capacity to cater to the ground water seepage and direct rainfall water during rainy season shall be created at all point of time in the mine life. Additional water shall be dewatered with the help of pump installed near sump at elevated location. Pipe ranges shall discharge water to the settling tank on the surface. In the settling tank/pond clear water shall be pumped to nearest natural nala.

For keeping the working face and benches during monsoon season, benches shall be mildly sloped toward sump side/dip side to allow water to percolate at the bottom most coal benches and finally lead to sump. Diesel operate face sump and slurry pumps shall be installed for occasional running for drying up faces.

Pump out water from the mine shall be brought to the settling pond located by the north of Khora/Lathorva Nala (A). Furrows suitable to arrest the siltation if any before finally pumping the clean water to nala. Settling pond shall be 2m (approx.) deep and around which bund shall be erected. Settling pond measuring approx 1 Ha shall be sloped southward to facilitate natural flow of water.

Drained mine water as explained above shall be carried to Lathorwa nala which finally meets Ghagra river on south side of the block.

SANJIV KUMAR SINGH
Recognised Qualified Person
Regd. No. 34011/(15)/2009-CPAM
Govt. of India

5.3.13.4 In pit Storm water from Monsoon rainfall

In pit storm water runoff shall be intercepted at various levels within the pits to minimise the amount of water reaching the base of the pit. This shall involve the following system:

- Bund walls at specified levels within the pit to create a multilevel series of small holding dams
- Corresponding bench drains for interception of surface and ground water flow and its subsequent diversion to holding dams
- High volume discharge pumps at each holding dam level to discharge collected storm water. These shall be on an automatic start float system.

5.3.13.5 Groundwater Flows

Groundwater shall be controlled by the installation of dewatering wells along the perimeter of the pit which shall intercept groundwater flow and reduce the risk of excessive flows into the pit. The dewatering system shall be progressive and shall be brought on in stages as the mine develops. The system shall utilise 100 mm diameter submersible pumps in 150 mm diameter PVC well screens and casing and the wells shall be at approximately 150 m centres.

The details of the groundwater dewatering system shall be refined on the basis of data collected from specialised pump tests to be conducted along the northern pit limit of the West Quarry (between the proposed canal and the pit limit). In addition, groundwater monitoring boreholes shall be established at 500 m centres to collect data on a continuous basis, which shall be used along with geotechnical monitoring systems to assess slope stability parameters on a continual basis.

5.3.13.6 Non Potable Water Requirements

Water from the dewatering wells shall be piped to a water storage facility. From here the water shall be piped to various locations around the mine site for use in construction, dust suppression at the mine and coal handling plant, sewerage system at the mine infrastructure and Colony, green belt irrigation, fire protection and for miscellaneous washing purposes.

5.3.13.7 Potable Water Requirements

Water from the storage facility shall be piped to a water treatment plant to produce potable water. This water shall then be piped around the mine site infrastructure and to the Colony. Borewell shall also be drilled to meet

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Govt. of India
PAWAN DEV JASWAL

requirement of drinking water and water requirement during construction stage.

5.3.13.8 Discharged Water

Excess water from the mine shall be discharged into the existing nallahs via Sediment Ponds. The ponds shall be 300m x 300m with a depth of 1.5 to 2.0 metres and internal bunding to control flow movement.

5.3.13.9 Pumping of Mine Water

The pumping system has been planned separately for each pit considering simultaneous working. Mine has been planned in such a way that working faces and haul road shall remain dry as far as possible. Layout of quarry provides suitable gradient along quarry floor and benches to facilitate self-drainage of water to lowest level of quarry.

Proper drains shall be dug along both sides of haul road to keep the haul roads dry. Main sump at the lowest-point of quarry shall have sufficient capacity to accommodate entire make of water.

Water accumulated in the sump shall be pumped out of the mine at suitable point so that it drains away to canal and to Main River. Suitable sedimentation tank shall be made where quarry water shall be discharged and then after proper sedimentation, water shall flow to the nallahs. Pumping requirement has been assessed on the basis of,

(i) Meteorological data from nearby area concerning maximum rainfall.

(ii) Catchment area and depth of quarry.

Assuming 20 hours of pumping and six days to pump out the total water, the required pumping rate shall be 7726 cum/hr. selecting 540m3/hr pumps, the requirement is as given below. Initially 60 m head pumps shall be used for pumping out water from main Sump. As the quarries advance on dip side lower head pumps shall be replaced by higher head pumps.

a) Main Pumps [160 lps x 60 to 300 m head]: Complete with 6.6 KV 365KW electricals and starters.4% Pump sets with electricals to be kept as standby for emergency

b) Diesel operating Pumps:

- 80 lps X 60 m head
- 35 lps X 60 m head

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Deputy Chief Manager (Commercial)
EDC, A-6A, Sector-24, Noida-201301 (U.P.)

c) Face pumps 11 lps X 30 m head

d) Pipes: Sufficient length of pipes of dia. 406 mm, 300 mm, 219 mm and 100 mm have been envisaged for above pumps depending upon capacityofpumps.

पवन देव जमुआ/PAWAN DEV JAMTA
उप महाप्रबंधक (कोल-खान)
Deputy General Manager (Coal Mining)
एन टी पी सी लिमिटेड / NTPC LIMITED
SOC, A-8A, Sector-24, Noida-201301 (U.P.)

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

5.4. CONCEPTUAL UNDERGROUND MINING

5.4.1 Pakri-Barwadih (PB) Block has been divided into two portions, one for opencast upto a depth of 300 meters for deepest Seam, Seam-I and the other for underground mining. No underground mining shall be carried out in the PB-NW and PB-East as all the seams are extracted by opencast working. Thickness of mining block between floors of bottom most seam to roof of top most seam varies from about 120 m to about 170 m, average being about 140 m. The maximum depth of the Pakri-Barwadih block is about 600 m. Thus, the mining depth of proposed underground mining shall vary from about 160 m to 600 m. Such a property is ideally approached by an incline for coal raising and two shafts for ventilation and man and material transport. However, an incline through quarry bottom is not possible as this shall prevent or at least greatly limit back filling of over-burden in the worked out quarry and hence underground mines shall be developed through shafts only.

As per Geological data available, the underground area of the Pakri-Barwadih block contains about 728 millions tones (Mt) of coal reserves out of which only 109 Mt are 'Proved' and balance are 'indicated'. This calls for detailed exploration and formulation of geological report before action oriented Project is prepared. The detailed exploration programme for this area has already been discussed elsewhere in the document. Deailed exploration shall be completed before start of actual dumping operations over underground area. The time frame for exploration and exploitation of underground area and submission of mining plan for the same is given below.

Zero date of Commencement of exploration work for the area - from the commencement of opencast mining operations. Commencement of mining operations shall be reckoned from commencement of shaft sinking. Schedule of commencement is given in **Table 5.23.**

Table 5.23
Schedule of Commencement PB (UG)

Sl No.	Activity	Time schedule
1	Detailed exploration of the underground area	4 years
2	Preparation of G.R.	1 year
3	Various Studies and Clearances	3 year
4	Preparation and approval of Mining Plan from MOC	1 year
3	Commencement of mining operations	1 years

Chapter V - Mining

ROP No. 34011/(15)/2009-CPAM dated 27.09.10

408

Page V-52

	Total time	10 years

This chapter, therefore, deals with only a conceptual approach for exploitation of the deposit through underground mining. It may, however, be mentioned here that exploration and detailed mine planning activity are so timed and executed that it should be possible to start underground mine development activity at the earliest. This is necessary because underground mine development work, namely shaft sinking pit-bottom, winding arrangements, pump house and sump, horizon development and finally development of production panels take a long time.

5.4.2 Tentative Calendar Program:

Considering the production from area beyond 300 m depth line i.e. reserve amenable to underground mining a projected production plan is summarised in **Table 5.24.**

Table 5.24
Projected production plan

Year	UG mining (Projected) (Mt)	Cumulative (Mt)
-	-	-
-	-	-
10th Yr	0.5	0.5
11th Yr	1	1.5
13th Yr	3.6	5.1
14th Yr	3.6	8.7
15th Yr	3.6	12.3
20th Yr	3.6	30.3
25th Yr	3.6	48.3
30th Yr	3.6	66.3
35th Yr	3.6	84.3
40th Yr	3.6	102.3
45th Yr	3.6	120.3
50th Yr	3.6	138.3
51st Yr	3.6	141.9
52nd Yr	3.6	145.5
-	-	-
-	-	-

5.4.3 Mine development

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

407 पवन देव जामता/PAWAN DEV JAMTA
Deputy Director (Mining & Geology)
एन टी पी सी लिमिटेड NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

The underground mining area shall be developed through two pairs of shafts, one pair for the Western sector and the other for the Central sector of the Block (there being practically no area in the Eastern sector for coal of depth of more than 300 Mining from surface for development of a separate underground mine). These shafts shall be at least 400 m away from overburden dumps to ensure that infrastructure created near the shaft is not affected by any accidental slide of dumps. Shafts shall be sunk up-to a depth of about 430 m with landing arrangements at about 400 meter from surface.

From each shaft, two level cross-measure roadways (in fact marginally rising for drainage of water to shaft) shall be driven to touch initially the top-most seam but later on to all seams as need arises. There shall thus be two main intakes and two main returns. Thereafter, all development shall be in coal. At shaft bottom, the following facilities shall be developed in stone and shall serve all the seams throughout the life of the mine:

1. Pump house and Sump
2. Sub-station both at downcast (DC) shaft
3. Skip loading arrangements at upcast (UC) shaft.
4. 150-200 t coal surge bunker before skip loading arrangements.

The upcast shaft shall be suitably covered to prevent short-circuiting of air. This shaft shall be connected to main mine exhaust fans (two in number-one working, one stand-by) through a fan-drift.

The upcast shaft shall be equipped with 15-tonne skip winding system with automatic loading of coal at shaft-bottom and automatic unloading of coal at shaft-top. The winding cycle shall be of about two minutes capable of giving 30 cycles per hour. Arrangements shall be made for man-winding in skip shaft in case of emergency.

The downcast shall be equipped with cages for man and material winding.

Both winding systems shall be operated through ground mounted Koepe winders. Shafts shall be equipped with rigid guides for smooth winding of skips and cages. Both shafts shall be of 6.5 m dia. finished and shall be about 60 m apart.

For initial development both shafts shall have temporary headgears and winders equipped with cage and mine car systems. Once facilities in rock are developed, permanent-winding facilities shall be installed as mentioned above.

Up-cast and down-cast shafts shall be connected only through one gallery in stone to restrict short circuiting of mine air. Development faces shall mainly be ventilated by auxiliary fans and tubing.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जाल्टा/PAWAN DEV JAMTA

For stone work, compressed air shall be supplied from compressors installed on surface supplying compressed air to working forces through pipes and houses. Side discharge loaders of about 2 m3 bucket capacity, shall be used for loading blasted rock in mine cars. On surface, these cars shall be taken to a tippler from where a conveyor shall take the muck or the mined rock to a bunker for loading dump trucks, for dumping the mined rock in overburden dump of the opencast mine.

All workings in rock shall be rock-bolted and gunited. Arches or wall-girder support shall be provided only where found necessary.

No underground working shall be permitted within 60 m of worked out opencast mine, thus maintaining minimum 60 m solid barrier between underground and opencast as this is necessary on safety consideration.

5.4.4 Development in coal

Once the four cross-measure roadways of 400 m horizon touch a coal seam, rest of the mine development shall be in coal. Seams shall be developed and extracted top downwards. Two main intakes and two main return air roadways shall be developed on both sides of cross-measure roadways. Thus, there shall be a set of four main roadways for each seam or each group of seams. From these roadways, panels shall be developed on rise and dip-side. Scheme of development is shown in fig. 1& 2. Solid barrier shall be left between a panel and main trunk roadways. Return and intake roadways shall be connected at as few places as possible to reduce the number of stoppings and to prevent leakage. Development shall be done with the help of side- discharge loaders and conveyors, which shall initially load mine cars but later on skip loading conveyor. 2.5 t capacity mine cars shall be used for development before all conveyor system is established.

Main trunk roadways shall be 4.8 m wide, roof-bolted. Centre to centre distance between roadways shall 48 m. Panel development emanating from these trunk roadways shall be according to the final method of coal extraction. Height of trunk roadways shall be equal to seam thickness or a maximum of 3 m. There shall be only one set of trunk roadways for each group of seams. If any seam has top, middle and bottom sections, trunk roadways for them shall only be one set in located a suitable horizon. Similarly if any two seams have less than 8 m parting between them, trunk roadways shall only be in one of them only.

Main trunk return air and intake air roadways shall have as few connections as possible. When not in use, these inter-connections shall be cut off by stoppings. One intake-airway shall be used for conveyors and travelling the other for material supply rail track equipped with endless haulage.

SANJIV KUMAR SINGH
Competent Qualified Person
No. 34011/(15)/2009-CFAM
Ministry of Coal, Govt. of India

SHRI BIRENDRA PAWAN DEV JAMTA
EDC, A-6A, Sector-24, Noida-201301 (U.P.)

Each seam shall have its own small sump and pumping station which shall pump water to main sump of the mine.

5.4.5 Mine development includes:

1. Working in stone as shown in the area bound by dotted line.
2. Shafts 4 nos. of cross-measure drifts, sub-station, Pump house, sump, skip drift, bunker, skip loading arrangements are in stone and for all seams. All other development is in coal seam.
3. Seams are extracted top downwards.
4. Coal transport is through belt in intake except from main intake to skip loading station which is in return.
5. Seams are touched by cross-measure drifts 4 nos. – 2 intake 2 returns.
6. Initial development shall be through cages, mine-cars and haulages.

5.4.6 Method of coal extraction

There are basically three methods of underground coal extractions:-

1. Board and pillar,
2. Room and Pillar, and
3. Longwall.

Normally for such deep mines as in this case Powered support Longwall is the appropriate method of coal extraction provided the deposit is near uniform and roof is not hard to cave. If the seam thickness varies considerably, more them one set of powered support are needed to cover the entire property. Even for one panel, double telescopic powered supports may be required to cover the entire seam thickness variation. Such supports are very costly. The geological data available indicated that each seam has considerable thickness variation.

Coming to geological structure in the underground area, the same is yet to be confirmed by detailed exploration as the area mostly contains "Indicated reserves". There are a large number of faults in the opencast area and if similar structure is considered for dip-side underground area, formation of long panels (an essential requirement of powered support longwall) for 150 to 200 m long face shall not be possible.

Further, geological information has revealed that roof rocks are very hard in nature and to cave them properly heavy duty and costly supports shall be needed and yet caving may not be proper and regular without blasting in goaf.

For the reasons mentioned above longwall – Technology is ruled out for coal extraction.

SANJIV KUMAR SINGH
Recognised Qualified Person

Coming to Room and Pillar system of mining seam gradient is a bottle neck here. Gradient of seams is indicated as 1 in 3 to 1 in 5 (100 to 150). This rules out use of shuttle cars with continuous miners. Use of continuous haulage with continuous miner is a possibility but this technology has not yet been tried in India and is not widely practiced even in those countries, which extensively use Room and Pillar system of mining. Further this system cannot effectively extract coal from seams that are more than 4.5m thick. As per geological information available out of over (12) twelve mineable coal seams and twenty (20) coal sections these (including top, middle, bottom top and middle, middle and bottom, and total combined sections etc.), as many as 15 have coal thickness more than 5 m in different areas. Such a deposit cannot be efficiently worked by Room and Pillar technology.

We thus have no alternative but to adopt Board and Pillar and Gallery Blasting (which is a variation of Board and Pillar) methods for this property. However deep properties like the area in question, require high output and high productivity. This can be achieved by using higher capacity side discharge loaders, universal drilling machines (both for roof bolting and to obtain longer pull per blast by long hole drilling and by mechanization of support system in pillar extraction.

Sequence of extraction shall be as follows -

a) If two seams have a parting of less than 3m between them the thicker seams shall be worked and the thinner shall be left in-site unused.

b) If parting between two seams is 3 to 6 m both seams shall be developed and extracted simultaneously.

c) If parting between two seams is more than 6 m upper seams shall first be extracted.

All seams shall be extracted by caving.

Thickness less than 1.5m shall not be worked.

Seams of thickness 1.5 to 4.0 shall be extracted by Slice and Rib (SR) method and of thickness more than 4 m by Blasting Gallery (BG) method.

5.4.7 Panel Size

Since the depth of opencast mine shall be 300m from surface for the lower most seams, in the underground mine the upper-seams in some area shall have depth less than 300m depth. For area of depth less then 240m panels shall have 9 level galleries and 8 pillars of size 30.5 x30.5m centre to centre with 4.2m wide galleries. Panel shall as long as possible. For long panels system of sub-panelling shall be adopted, if required. For during extraction stage.

For depths between 240 and 360 m a panel shall be of 7 level and 6 pillars of size of 39.5 x 39.5 centre to centre.

SANJIV KUMAR SINGH
Competent Qualified Person
Regn. No. 2007/CQP/0005-CPAM
Ministry of Coal, Govt. of India

For depths beyond 360 m a panel shall have 6 level and 5 pillars of size 45m x 45m m centre to centre.

The above is as per requirements of Coal Mines Regulation, 99. However it is proposed to approach Directorate General of Mines Safety to permit pillars of Factor of safety 2.5 as it has been scientifically established that pillar of Factor of safety 2 and more have long term stability. If the proposal is accepted by DGMS, pillar size can be much smaller than presently required under Law. With smaller pillars there shall be more number of faces and depillaring shall also be facilitated.

Each panel shall be equipped with 3 side-discharge loaders (SDLs) 2m³ bucket capacity, 3 universal drilling Machines (UDMs) and at least 3 face conveyors, 2 gathering conveyors and one gate conveyor.

In order to improve percentage of extraction and to reduce number of stopping, this solid barrier shall be left between panels. Thickness of such barrier shall be scientifically determined.

5.4.8 Mine Output

On an average a panel with 3 SDLs (2m³ bucket capacity) shall give a production of 600 tonnes per day. Such ten panels shall be worked at a time, six in upper seams and 4 in the lower seams. Where BG method shall be worked, SDLs shall have remote controlled facility. The projected mine output is thus 6000 tonnes per day.

5.4.9 Total Output

With working of two underground mines, each producing 6000 tonnes per day the total annual output works out to 3.6 million tonnes a year considering 300 working days in a year.

5.4.10 Coal Disposal

Initially, skips of a mine shall unload coal to a small bunker which shall load a conveyor. This conveyor shall carry coal to 200 T capacity overhead bunkers for truck transport of coal to railway siding of the opencast mine. Later on, a conveyor shall be installed on surface to take coal from 200 T bunker to a 1000 T bunker at a point central to both underground mines. Similar facilities shall be created for the second underground mine. From two close by 1000 T bunkers a conveyor, which shall be laid on the leveled of over-bunker of western sector opencast mine, shall carry coal to main bunker of opencast mine for rail movement of coal.

5.4.11 Environment protection

In a multi –seam mining situation two factors need special attention. They are:

1. Risk of underground fire, and

2. Heavy subsidence on surface.

These problems shall be tackled in following manner.

A. Underground Fire

Solid coal barriers shall be left between panels so that problem of one panel is contained within the same. Wherever required (due to incubation period considerations) sub-paneling shall be done.

Working panels shall have minimum connections with trunk roadways so that they can be isolated quickly in case of fire.

Automatic monitoring system shall be installed at strategic points underground to give audio-visual alarm in control room on surface for abnormal rise in values of CO, CH4 and temperature

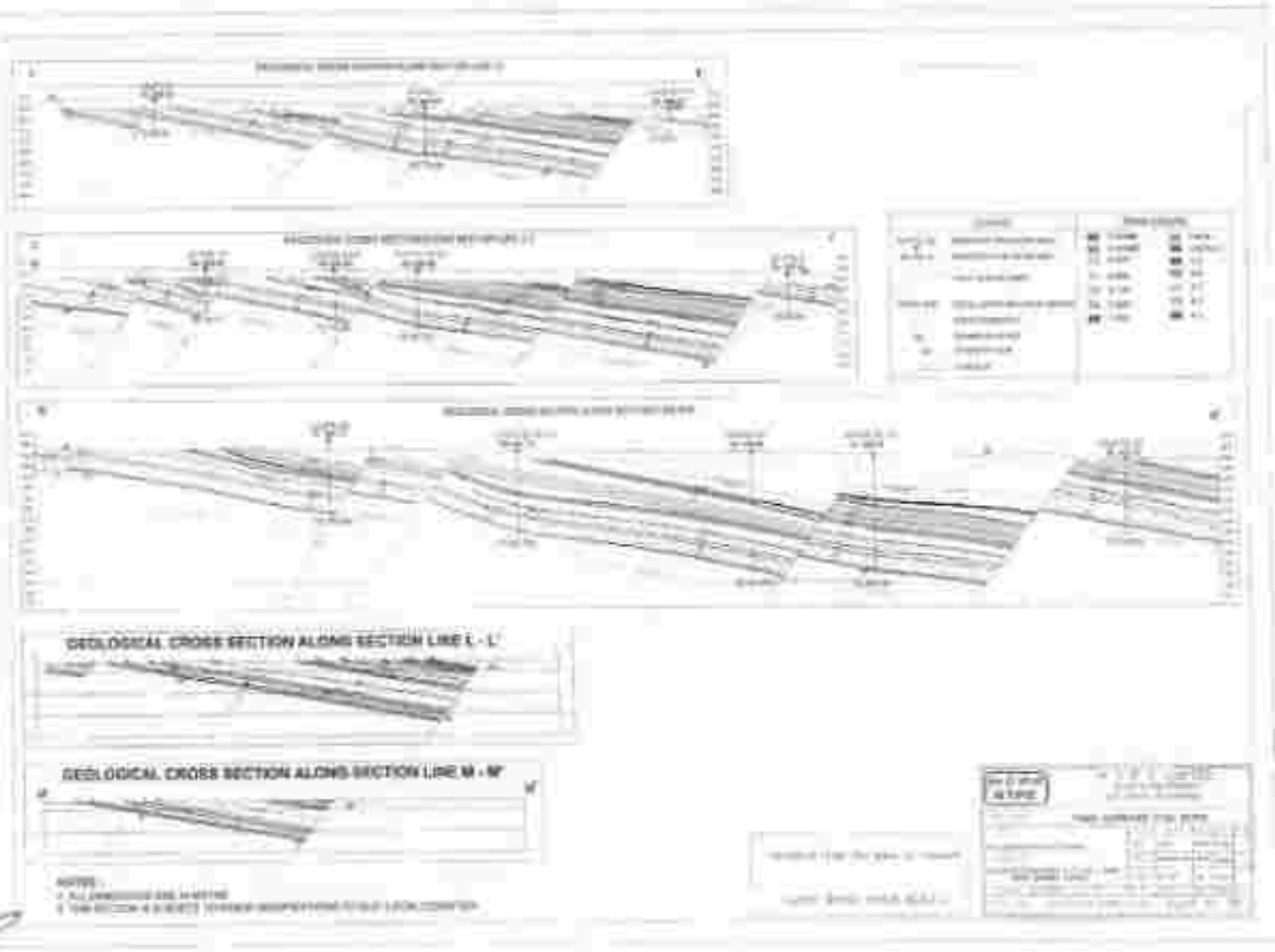
B. Damage to surface

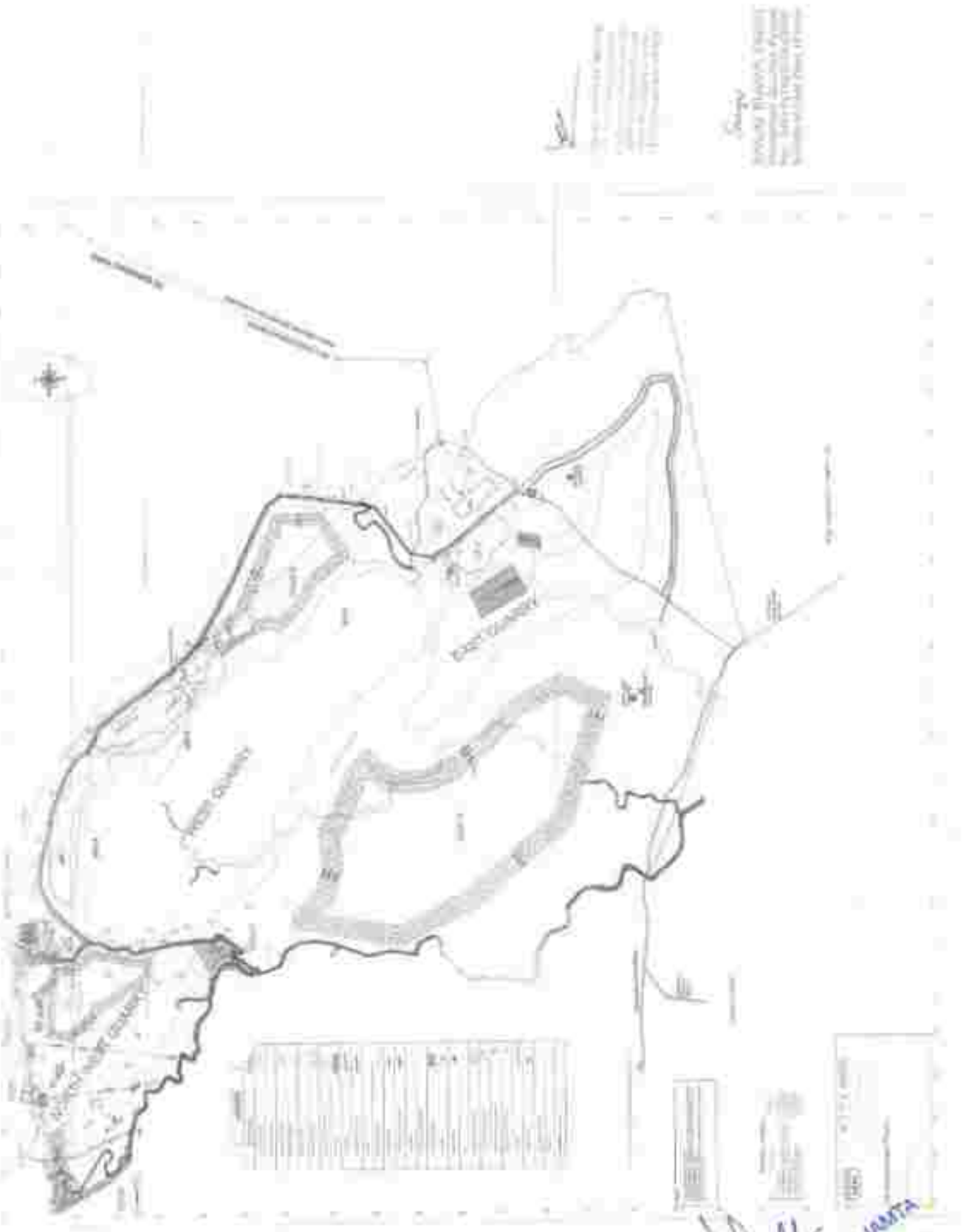
Since the underground mine area is yet to be covered by detailed exploration, panel layouts, exact thickness of coal extraction and subsidence due to such extraction cannot be projected at this stage.

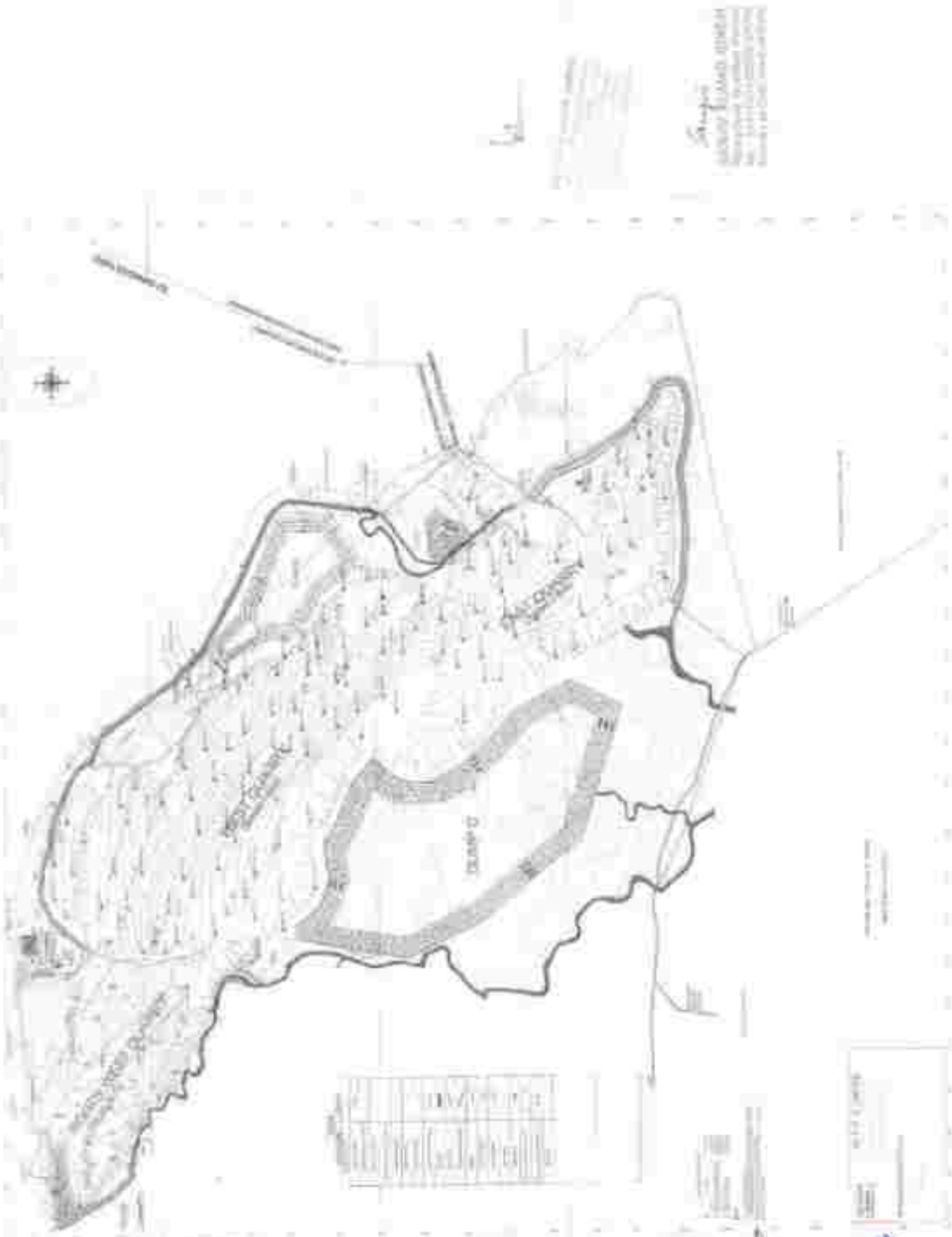
PAWAN DEV GUPTA
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

SANJIV KUMAR SINGH
Recognised Qualified Person
Regn. 34011/(15)2009-CPAM
Ministry of Coal, Govt. of India



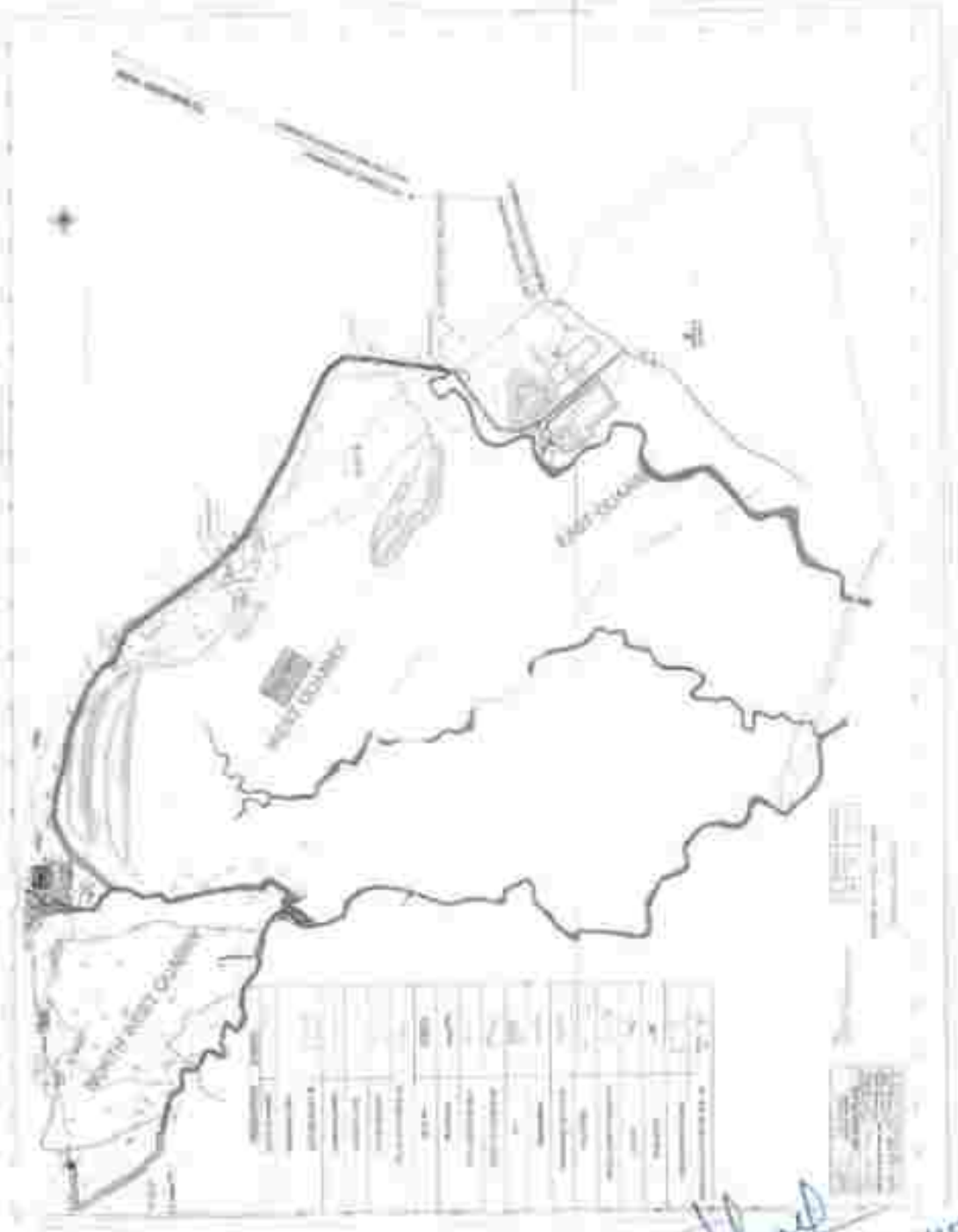

GEOLOGICAL CROSS SECTION ALONG SECTION LINE E - E'
GEOLOGICAL CROSS SECTION ALONG SECTION LINE M - M'

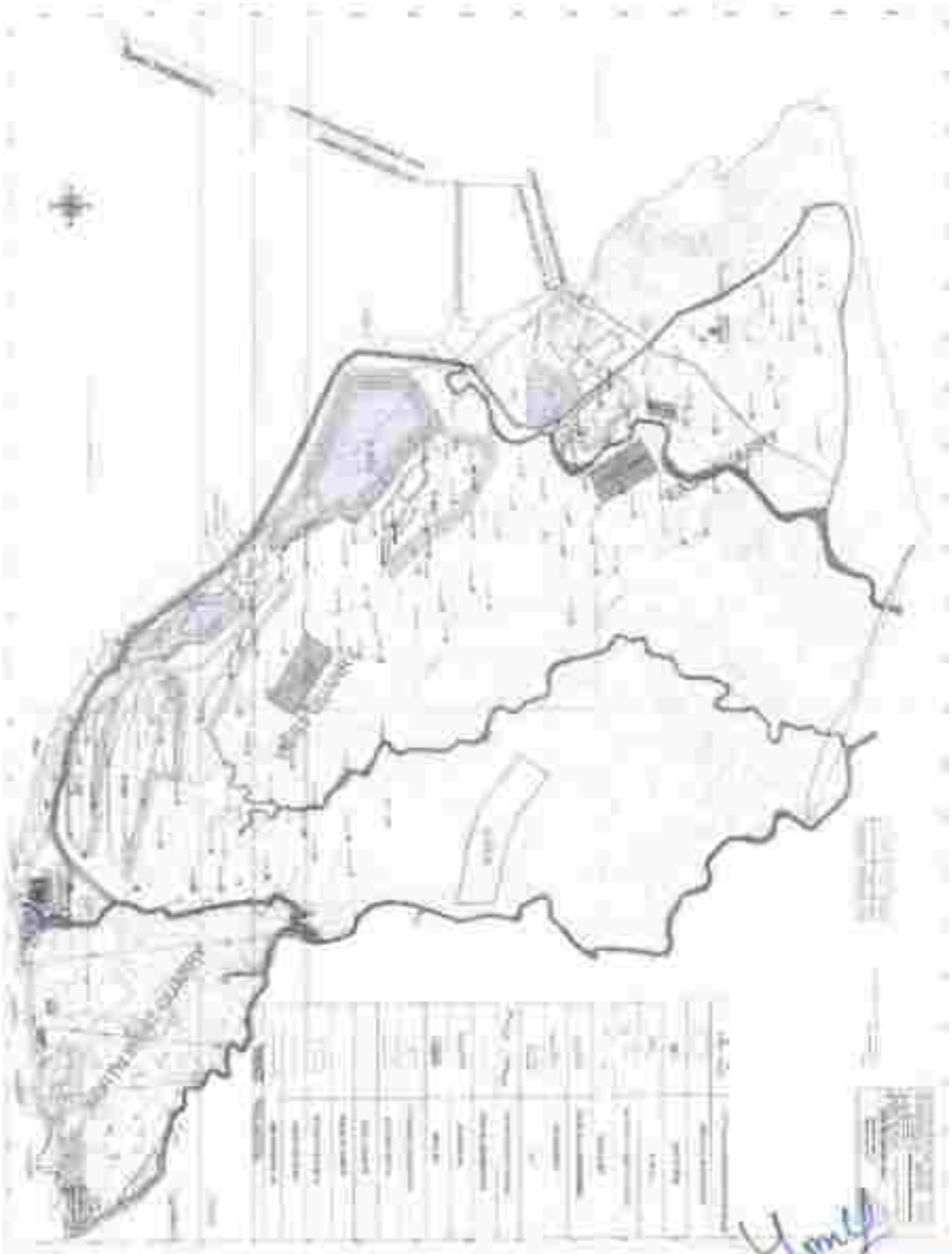




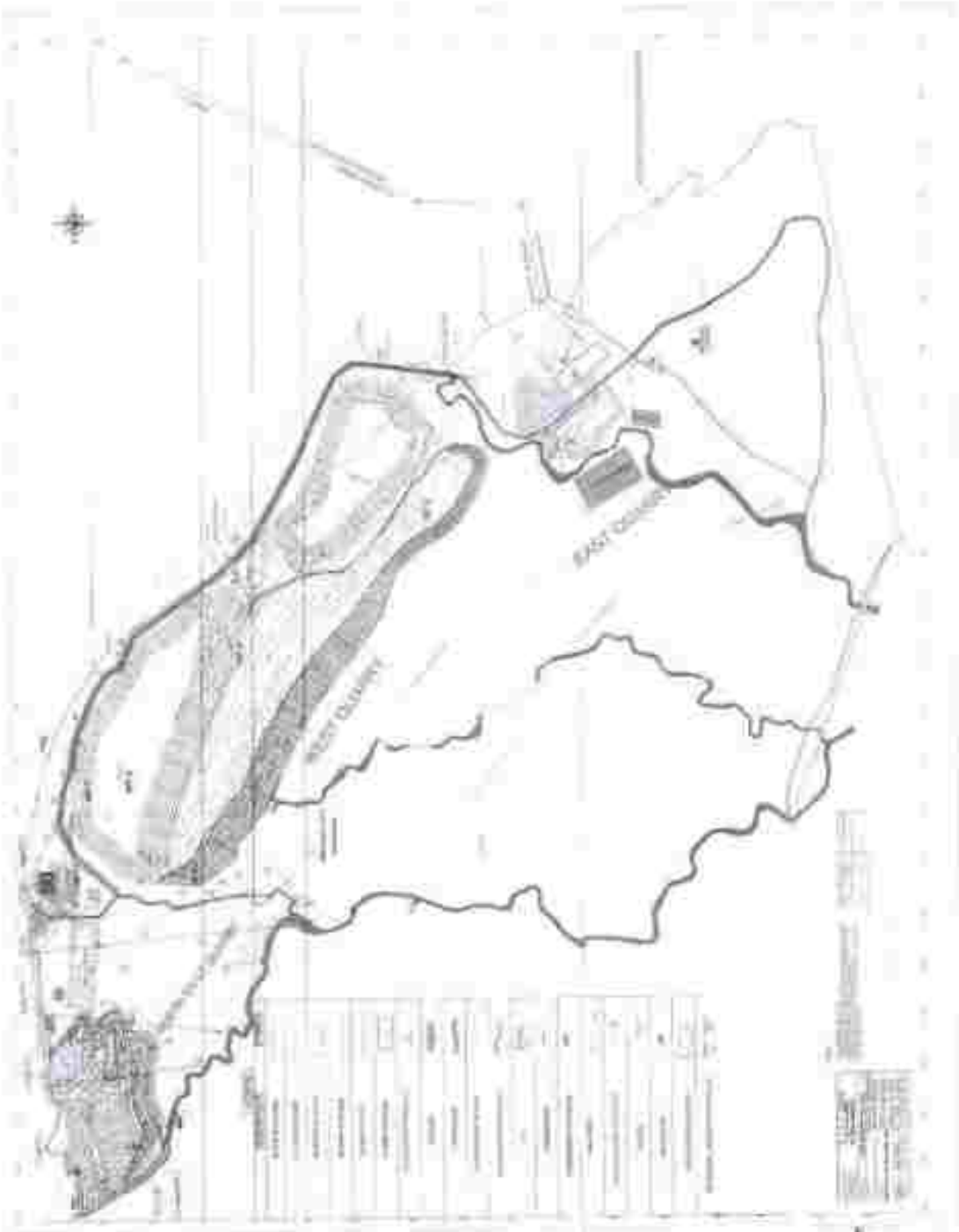


पवन देव जमाटा/PAWAN DEV JAMTA
Deputy General Manager (Mining)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

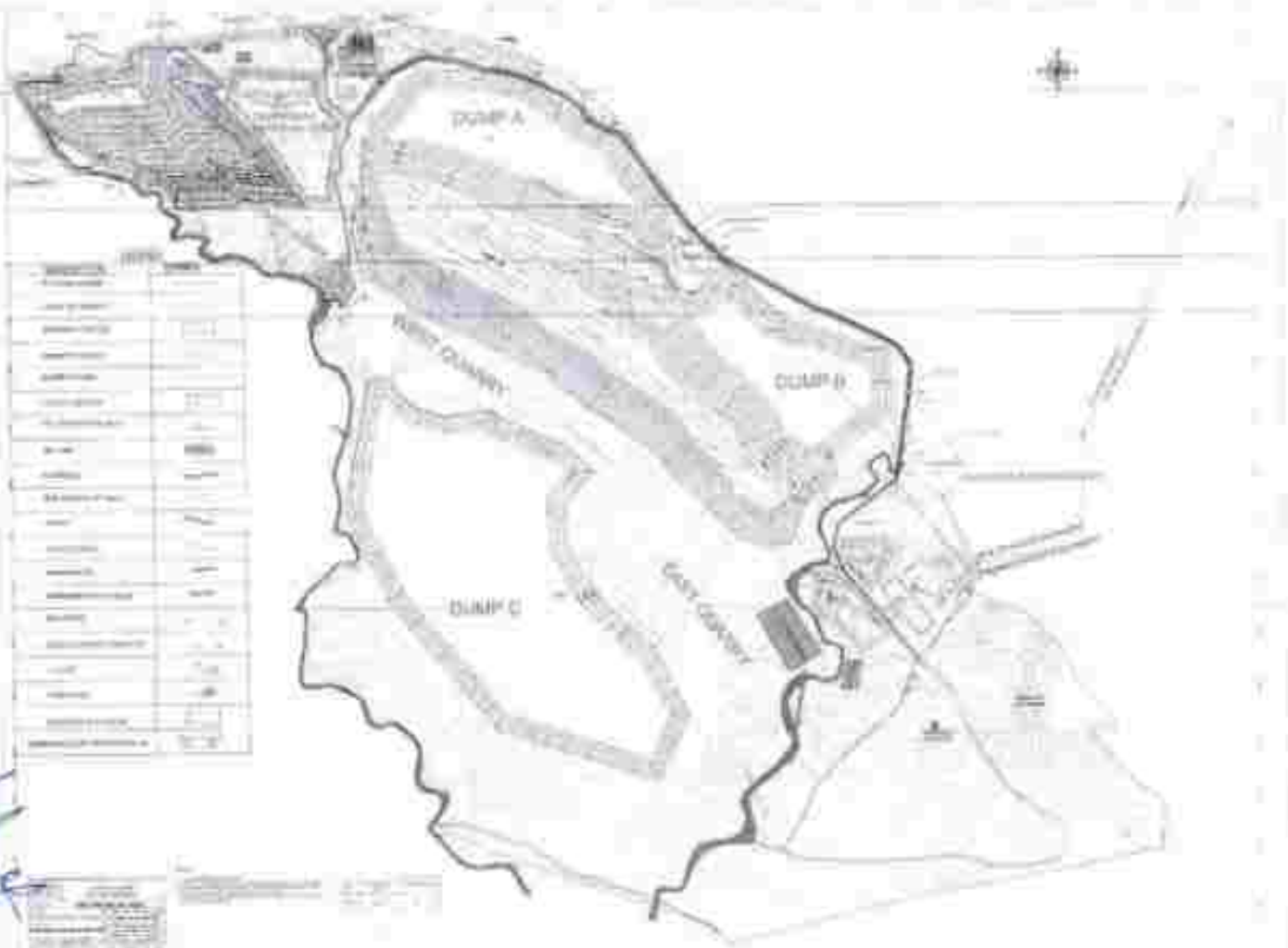


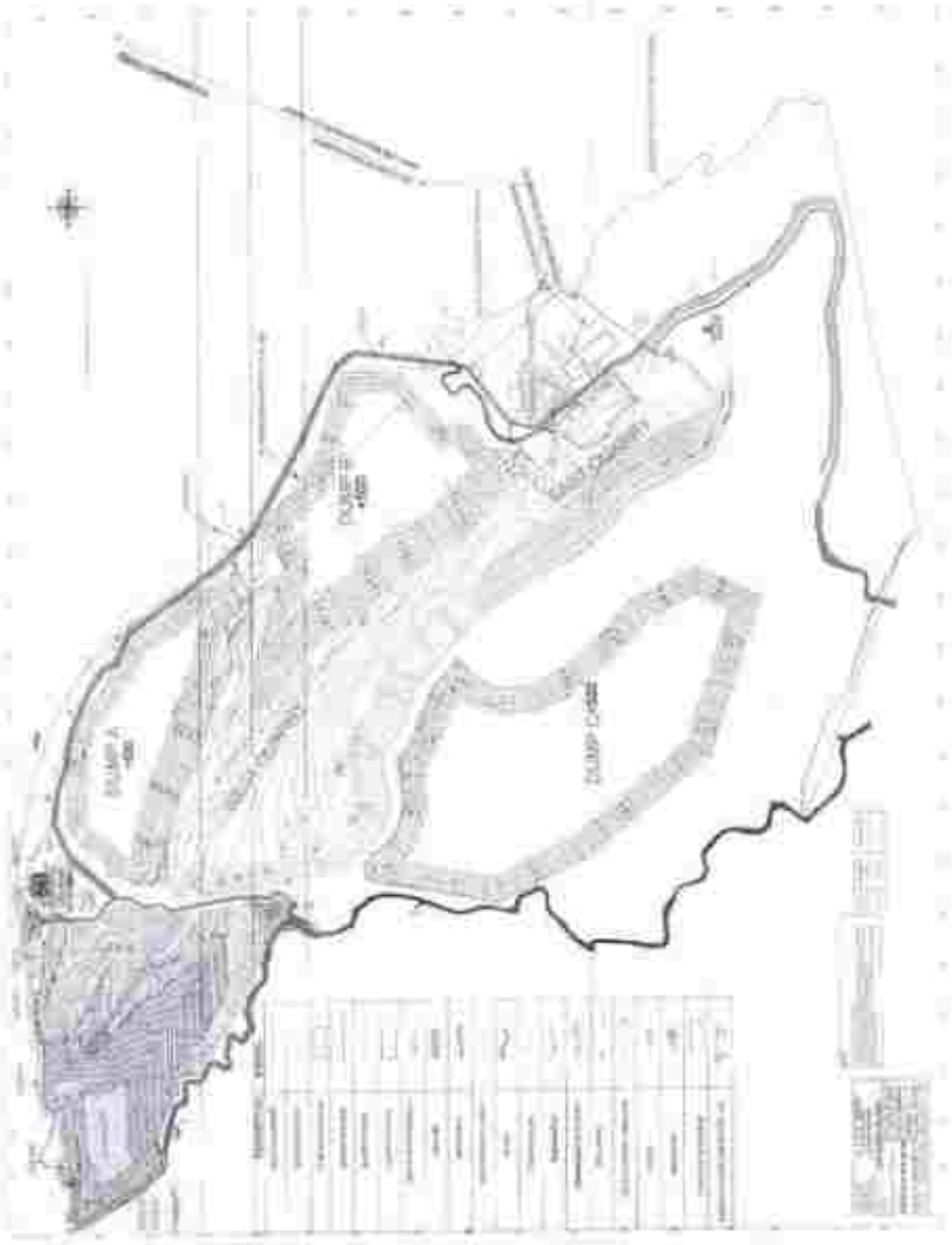


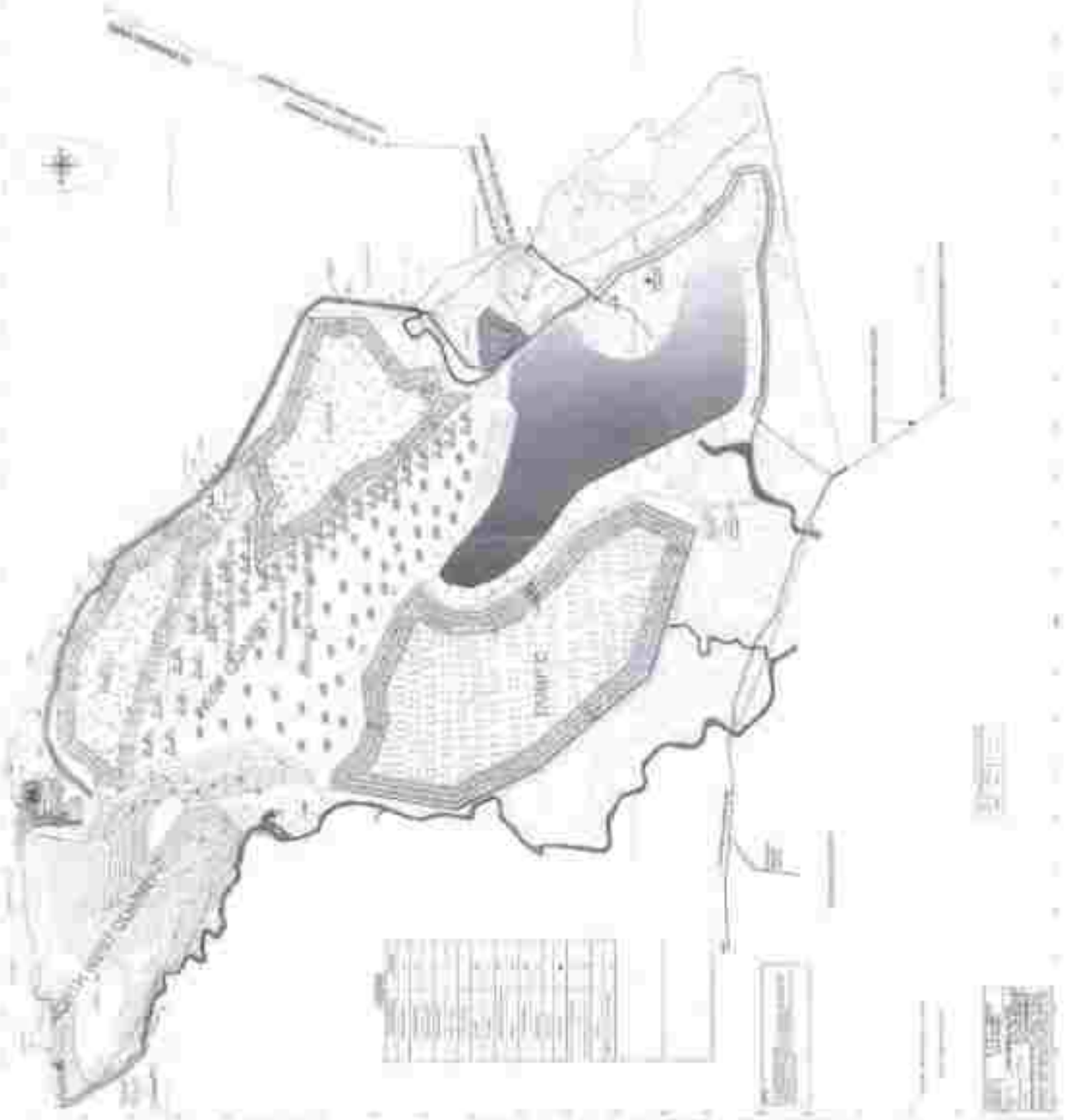
पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (सीमेन्टेशन)
Deputy General Manager (Cementation)
एन टी पी सी लिमिटेड / NTPC LIMITED
E/OC-A-84, Sector-24, Noida-201301 (U.P.)



पवन देव जमता/PAWAN DEV JAMTA
उप महाप्रबंधक (सी.एस.)
Dy. Dunand Manager (Co-Ordinator)
NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)


DUMP A
DUMP B
DUMP C
RIVET QUARRY
EAST QUARRY







CHAPTER VI

MANPOWER, SAFETY AND SUPERVISION

CHAPTER VI

MANPOWER, SAFETY AND SUPERVISION

6.1 INTRODUCTION

6.1.1 Life of the mine shall be approximately 52 years as per the calendar programme. Besides maintaining large fleet of HEMM and ancillary equipment, there is need to employ sufficient manpower to improve overall availability/utilization of the mining equipment , extraction transportation & despatch of coal, administration & welfare of the personnel employed, for safe and economic exploitation of mineral. The manpower has been provided to achieve the above objective.

6.1.2 Requisite manpower is provided for PB West and PB NW quarry. Manpower proposed for PB North West quarry shall be utilized for managing the affairs of PB North West quarry exclusively. As already explained in Chapter-5 PB East quarry shall be operated in two distinct phases the first phase shall last for initial two years while the second phase shall commence from 25th year till end of life of quarry.

In the second phase of PB East Quarry manpower proposed for PB West Quarry shall be utilized for managing the affairs of PB East Quarry progressively, commensurate with the fall & rise of production from West Quarry and East Quarry respectively. In the first phase of PB East Quarry separate set of manpower is proposed for managing the affairs of PB East Quarry. At the conclusion of first phase of PB East Quarry the proposed manpower shall be suitably deployed by NTPC in its establishments.

For the common infrastructure and ancillary facilities (Explained in Chapter-VIIII) separate fleet of manpower shall be provided which shall serve the purpose of managing common affairs of quarries.

6.1.3 Manpower planning and scheduling has been done in compliance with Mine Act 1952, Mine Rules 1955, Coal Mine Regulation 1957, Mine Vocational Training Rules 1966 and all other rules and regulations applied to Indian Coal Mines, apart from compliance to the directives/circulars issued by DGMS (Directorate General of Mine Safety) issued time to time.

6.1.4 Abiding by the aforementioned statutes organisation chart for the mine shall be drawn. The positions of statutory manpower such as Mine Manager, Assistant Mine Manager, Safety Officer, Labour Officer, Welfare Officer, V.T. Manager, mine officials, workman inspectors, Supervisors, set of competent persons etc., have been clearly identified and shall be deployed in consultation with DGMS. Qualifying requirement shall be drawn up and

SANJAY KUMAR SINGH
Recognised Competent Person
No. 3-4011/(15)/2009-CPAM
Govt. of India

RAJ KUMAR DEV JAMTA
Dy. General Manager (Geo-Engg.)
DEV-ADA, Sector-24, Noida-201301 (U.P.)

suitably qualified and experienced persons wherever warranted shall be deployed in the post to ensure adequate management, control and supervision.

6.1.5 Potential of local/regional personnel shall be explored preferably land losers who shall be recruited in unskilled, semi-skilled, office assistant or similar categories. These personnel will need training and orientation before project starts. Besides some I.T.I qualified young people from the region can be recruited for operation and maintenance job of plant and machineries after proper training. The employment of local people in primary and secondary sectors of project shall upgrade the prosperity of the region. Skilled and highly skilled personnel shall also be required who shall be recruited as per NTPC appointment and recruitment norms.

6.1.6 The required manpower is categorised broadly in four different categories,

a) Supervision
b) Operation
c) Maintenance
d) Other services

Following are the different categories of Supervisory manpower:

a) Management
b) Operations
c) Human Resource
d) Fixed Plant
e) Finance and Procurement
f) Technical Services

Additional statutory manpower will be inducted wherever required by DGMS.

6.1.7 As per the prevailing industrial practices, the Positions mandated by DGMS are given in **Table 6.1**.

SANJIV KUMAR SINGH
Competent Qualified Person
Ministry of Coal, Govt. of India

TABLE 6.1
Statutory Persons

Head	Category	Statutory (DGMS)
Management	General Manager	Agent
Management	Manager - Mine Operation	Mine Manager
Management	Manager - Maintenance	Colliery Engineer
Operations	Deputy Manager - Safety	Safety Officer
HR & Admin	IR Officer	Welfare Officer
HR & Admin	Training and Development Manager	Training Officer
Fixed Plant	Fixed Plant Manager -CHP	Colliery Engineer CHP

6.2 Requirement of Man Power

6.2.1 Requirement of Departmental Manpower is given in Table-6.2

TABLE 6.2
MAN POWER REQUIREMENT FOR PAKRI BARWADIH PROJECT

Sl.No	Category	PB West & East Quarry	PB NW	Total
1	OB Direct	345	267	612
2	Coal			
	Coal Direct	479	211	690
	CHP	136	42	178
	Loading & Despatch	12	4	16
		627	257	884
3	Common Services			
	Excv Supervision	108	13	121
	E&M Supervision	42	13	55
	Excv P&M maintenance	242	220	462
	E&M Maintenance	91	20	111
	Support Equipment/Other Operations	114	45	159
	Safety, Production &Quality Control	72	17	89
	CGM Office / Project Office cum Planning Division	51	10	61

SANJAY KUMAR SINGH
Assistant Director (Tech)
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

	Training Centre	5	5	10
	Communication	17	12	29
	Finance & Accounts	16	11	27
	Personnel & Welfare	9	7	16
	Stores	24	10	34
	Civil & Town Administration	11	22	33
	Medical & Sanitation	24	17	41
	Survey	12	9	21
	Transport	22	33	55
	Watch & Ward	1	1	2
	Sub-Total	**861**	**465**	**1326**
5	**Reclamation & Environment**	**22**	**19**	**41**
	Total	**1855**	**1008**	**2863**

6.2.2 Requirement of outsourced Manpower

In Addition to the Manpower cited as above, the requirement of following category of manpower will be met through Outsourcing. The approximate number of such manpower shall be approximately 120 however details shall be worked out during project implementation stage preparation.

a Security, Watch & Ward
b Canteen
c Rest House/Guest House
d Water Supply
e Coal Laboratory
f Environment Laboratory
g Water Supply
h Vehicles for Transport
i Cleaning & Sanitation.

6.2.3 Requirement of Manpower for PB East Quarry in the Initial Phase (2 Years

In Addition to the Manpower cited at clause no. 6.2.1 above, the requirement of following category of manpower is estimated for the period of two years only for operation of PB East Quarry. Requirement of Manpower for PB East Quarry in the initial years is given in **Table 6.3**.

SANJIV KUMAR SINGH
Recognised Qualified Person
Ref. 34011(15)/2009-CPAM
Ministry of Coal, Govt. of India

TABLE 6.3
MAN POWER REQUIREMENT FOR PB EAST PROJECT

Sl.No	Category	Number
1	**OB Direct**	**120**
2	**Coal**	
	Coal Direct	65
	CHP	27
	Loading & Despatch	4
		96
3	**Common Services**	
	Excv Supervision	22
	E&M Supervision	9
	Excv P&M maintenance	49
	E&M Maintenance	19
	Support Equipment/Other Operations	23
	Safety, Production &Quality Control	15
	Training Centre	
	Finance & Accounts	3
	Survey	3
	Transport	4
	Sub-Total	**147**
5	**Reclamation & Env. Mgmt.**	**4**
	Total	**367**

6.3 SAFETY ASPECTS

6.3.1 GENERAL

6.3.1.1. Designated Owner in person by name of the mine has to be notified by the Board Secretary on advice of the Board of Directors of company. The designated Owner shall notify Agent of the mine. The Agent shall notify employment of the Manager of the mine. Company will appoint Under Manager, Asst. Manager, Safety Officer, V.T Officer, Welfare Officer, Surveyor, all excavation and E & M Engineers including Chief Excavation Engineer and Chief E & M Engineer, Overmen, Mining Sirdars, attendance Clerks, electrical supervisors and mechanical foremen. The Mine will be inspected daily, as far as practicable, and also in odd hours by the Manager and the Agent and deficiencies in safety noted during inspection are to be rectified on priority basis. Under the above broad administrative setup, the

arrangements shall be discussed with DGMS and modification suggested by DGMS, if any, shall be incorporated.

6.3.1.2. Under the above set-up, all safety precautions during the mining operation, posting of sufficient number of officials and persons, maintenance of all records/registers as per statute, disaster management framing of bye-laws and code of practices shall be undertaken. Manager shall have the authority to order withdrawal of persons/ suspension of operation in case of any emergency like fire/inundation and he shall issue such order, if found fit, in consultation with the Agent and it is subject to the provision of CMR, 1957. Mining is a hazardous industry and hence, necessary measures shall be taken to prevent accident due to following anticipated hazardous/risk prone activities.

- Slope failure
- Handling of explosives
- Fly-rocks during heavy blasting
- Movement of HEMM
- Inundation due to surface water
- Dust hazards
- Fire hazards due to spontaneous heating of coal
- Hazards associated with use of electricity
- Flooding of lower benches

6.3.2 STATUTORY RULES

6.3.2.1. Deployment of HEMM in any mine for excavation of coal/ OB needs planning of various activities in conformation with the prevailing statutory provisions, as per Mines Act 1952, CMR 1957, various DGMS circulars & bye-laws.

6.3.2.2. All applicable statutory rules, regulations, bye-laws etc and statutory requirement related to Govt. licenses, workers compensation, insurance, etc, including Minimum Wage Act for workers employed by the outside agency shall have to be adhered to. Any other rule imposed by local/State/Central authorities shall also be complied with by user of HEMM/equipment and then shall have to supply various protective equipment viz. helmets, shoes, safety gear for welding, working at height, electrical apparatus handling, etc. to the workmen at their cost.

6.3.2.3. It is recommended that code of practice as parted out in Cl.6.2.1.2 to be prepared by Company will be based on following.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

1. ILO code of Safety and Health and in opencast Mines (1991)
2. Coal Mines Regulation 1957
3. Mines Act 1952
4. Mines Rules 1966
5. Vocational Training Rules 1966
6. Indian Electricity Rules 1956
7. DGMS circulars from 1948 upto date
8. Factories Act 1948 (as applicable to mines)
9. Conditions attached to statutory permissions and exemptions granted by DGMS.
10. Recommendations of National Safety Conferences, Tripartite Safety Review Committees.
11. Special guide lines issued by DGMS following accident enquiries etc.
12. Any prevailing directive of Central or State government in their region.

6.3.3 SAFETY FOR HEMM/EQUIPMENT AND WORKERS

6.3.3.1. Special precaution shall be taken while deploying the HEMM and workers in the mine. Some of the major safety aspects before deploying of workers & HEMM to the mine are enumerated as follows:

(A) For workers

- No worker shall be deployed unless he is skilled enough to take up the designated assignment and trained at VTC.
- Records in Form- B and Form- D shall be maintained.
- Records of Vocational training Certificate and driving license of operators shall be kept by owner.
- No persons shall be employed unless person holds VTC certificate. A record of it shall be maintained.
- Adequate supervision shall be maintained by qualified competent persons.
- Safety guidelines and safety instruction will be followed.
- All drivers shall obey traffic rules prepared by the management.
- Before deploying workers, they must be trained and briefed about safety aspects in opencast mine.

However during course of execution of the work, if any accident occurs, whether major or minor, the matter shall have to be immediately informed to the mine management i.e. Colliery Manager/Agent/GM of Area so that Notices of accidents in a accordance with (Reg.9 of CMR 1957) and Section

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/15/2009-CPAM
Ministry of Coal, Govt. of India

23 of Mines Act 1952 may be given and other necessary steps may be taken in accordance with the Mines Act 1952.

(B) For machineries as recommended by DGMS Cir. (Tech.) 1 of 1999:

- All machineries to be deployed in mines shall be checked before deployment by the relevant Chief Engineer (mine) of the MDO.
- Regular checking of machines deployed by outside agency shall be done. No unfit machine shall be deployed before the defect is rectified.
- A proper record of repair and maintenance along with inspection done by manager and defect pointed out shall be maintained and signed by authorized person.
- The HEMM shall be provided with Audio visual alarms, proper light for use at night and during period when natural light is not sufficient. Also audio-visual alarms for reversing of HEMM shall be provided.
- RTO certificate photo copies of all vehicles shall be submitted to manager.
- Regular inspection of HEMM shall be done by the agency's mechanic as directed by the manager.
- Machine manufacturers shall be asked to give risk analysis details in respect machines deployed.
- Suitable fire extinguishers shall be provided in every machine.
- Risk Management Plan of HEMM shall be made and implemented.
- Transport system will be deployed in such a way so as to minimize pollution in the mine and keep the environmental status as recommended under the approved EMP.

6.3.4 STABILITY OF BENCHES, QUARRY HIGH WALLS AND SPOIL DUMPS

6.3.4.1. During quarry operations, it is necessary to adopt suggested mining parameters for the stability of benches, high-walls and spoil dumps. It is also mandatory to examine systematically the fencing of mine working, land slides and cracks between benches. It is required to maintain well graded and wide roads on benches keeping the width of working areas sufficient for spreading of blasted rock and movement of the mining and transport equipment.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

6.3.4.2. During actual mining operation, systematic observations and regular monitoring of the condition of benches, high-wall slopes and spoil dumps shall be carried out and the dimensions shall be modified if necessary, to suit the local conditions. Recommended bench geometry for different HEMM has been found suitable in existing opencast mines in the country.

6.3.4.3. Following slopes have been recommended in this report considering the practices in the other mines.

Overall (Ultimate) pit slope	-	37^0
OB Bench	-	70^0
Coal Bench	-	70^0
Dump bench	-	37^0

6.3.4.4. Company should get studies of physico-mechanical properties of rocks done at IITs/ISM/CMRI/CMPDI or other institutes so that further stability study can be performed by expert.

6.3.5 PRECAUTIONS AGAINST DANGER OF INUNDATION FROM SURFACE WATER

6.3.5.1. A careful assessment is to be made against the danger from surface water before the onset of rainy season. The necessary precautions shall be clearly laid down and implemented. A garland drain needs to be provided to drain away the surface rain water from coming into the mine. Garland drain shall be provided around OB dumps and working mines to course the rain water to main streams.

6.3.5.2. Inspections for any accumulation of rain water, obstruction in normal drainage

6.3.5.3. Standing order for withdrawal of working persons in case of apprehended danger.

6.3.5.4. During heavy rain inspection of vulnerable points is essential. In case of any danger persons are to be withdrawn to safer places.

6.3.5.5. The nearest nala is Khora nala A & B and already discussed are flowing either side of the Block. There may be possibility of inrush of rain water from flooding of nalas into the opencast mine pit. However any such possibility is eliminated as all the nalas are planned to be straightened systematically.

6.3.5.6. Any excavation under such circumstances would inundate the mine if nala is not straightened. Hence, straightening of nala has been proposed before 3rd year of mining operation. So there is no risk of flooding from these water streams.

SANJIV KUMAR SINGH
Competent Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

6.3.5.7. Moreover in order to control the in-rush of water into the quarry in rainy season from the surface or through seepage from the strata, sufficient garland drains will be made around the opencast excavation as proposed. Besides, pumps of required capacity and HP will be installed to pump out the seepage and rain-water continuously. A stand by diesel generator will be provided for un-interrupted supply of power to the pumps in the event of failure of power.

6.3.6 PREVENTION OF FLOODING OF EQUIPMENT DEPLOYED AT BOTTOM HORIZONS

6.3.6.1. During the heavy monsoon period, the mining operation in the lower-most benches may have to be stopped. Adequate pumping capacity on the basis of historical data of maximum rainfall and distribution of rainfall has been designed. But in case of unprecedented rainfall, machineries may have to be withdrawn from lower benches temporarily and redeployed after dewatering in the lower benches again. Meanwhile they will be gainfully employed in the upper benches.

6.3.6.2. For ensuring safety of the equipment while working out bottom horizons with no access to surface profile, the following measures shall be taken:

1. Drivage of initial trenches and coal cutting on bottom benches shall be done during the dry season of the year.
2. Ramps shall be made for quick shifting of equipment from bottom horizons, liable to be flooded during monsoon period to the top horizons.

6.3.7 PREVENTION OF ELECTRIC SHOCKS

6.3.7.1. During mining operations, all the statutory provisions of the Indian Electricity Rules 1956, and Indian Standards for installation and maintenance of electrical equipment etc. shall be observed.

- For protection from electric shocks to persons, from electrical equipment with voltage up to 1000V Earth Leakage Relay shall be provided which will automatically disconnect electrical circuits.
- Closed mobile substations and switchgears shall be mechanically interlocked which exclude the possibility of opening the door when oil switch and air circuit breakers are in operation.
- All metal parts of electrical equipment shall be properly earthed to avoid failure of insulation.

- All H.T. lines and cables located within the blasting zones shall be disconnected during blasting operations.

6.3.8 DUST SUPPRESSION & DILUTION OF EXHAUST FUMES

6.3.8.1. The following measures shall be adopted for dust suppression at all quarry working places, dump, haul roads, CHP and near other auxiliary mining operations.

- Water sprinklers shall be deployed in haul road. Additionally, chemical additives are recommended to form consolidated crust. This can be first tried on certain length and then extended for the entire length, if found suitable.
- Spraying with water on all working faces by special spraying machines.
- While drilling holes, it is necessary to use dust extraction devices.
- Installation of local dust suppression and air conditioning devices in cabins of excavators and drilling rigs will be considered.
- Levelling of spoil dump surface.
- Separate dust suppression arrangement shall be provided for CHP.
- To prevent collection of harmful mixtures in the atmosphere, from the different sections of quarry working, it is recommended.
- Maintaining the engine and exhaust conditioners properly, so as to keep emission gasses within limits and regular checking of exhaust and recording the same.

6.3.9 FIRE FIGHTING AND FIRE PREVENTION

6.3.9.1. In addition to statutory provisions, the measures for fire fighting and prevention of fires are as follows:

- Efforts are to be made not to lose any coal in O.B benches, and specially ledges of coal in inclined slicing system.
- Organization of special cell for systematic observation to examine and prevent fire.
- Removal of spillage of coal on benches and cleaning of coal horizons to prevent cases of coal heating.
- Storage of lubricants and cotton waste in enclosed fire proof containers in working places.
- Provision of fire extinguishers and fire tenders.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Deputy General Manager
EOC, A-88, Sector-24, Noida-201301 (U.P.)

- Delivery range of pump should have nozzles, strategically located, to tap water in case of emergency. Emergency organization shall be formed to deal with emergency during fire. The organization shall have names of responsible person along with their telephone numbers. Their duties shall be clearly specified and the persons shall be properly trained. Mock – rehearsals shall be held. A disaster management plan shall be prepared by the management and a CMG (Crisis Management Group) consisting of highly skilled & decision making persons shall be identified within the organization to tackle with such extreme situations.

6.3.10 MEASURES DURING DRILLING AND BLASTING

6.3.10.1. Following measures shall be taken while drilling and blasting operations in the quarry:

1) Drilling and Blasting in quarry shall be done in accordance with the provisions of Mines Act, rules and regulations.
2) Adequate safety measures have to be taken during blasting operations in the quarry so that men/machines are not affected.
3) Ground vibration due to blasting will be controlled by following:
   - Reducing the explosive charge per delay. 2-5 millisecond of delay interval per meter of burden has been recommended.
   - Spacing and burden are to be optimized by the blasting engineer.
   - Reducing the amount of explosive charged per blast.
   - Proper controlled rock movement during blast by using suitable initiating sequence and delay.
   - Pit blasting engineer will optimize powder factor, watch out for quantity of oversize and secondary blasting, improve utilization of Shovel and reduce damage of bucket teeth.
4) Sub-drill depth may be 0.2 times the distance between adjacent holes stemming depth will be 0.7 to 1.0 times the burden. It should be recommended that if burden is less, there will be venting of explosive gases with loss of efficiency and generation of fly rock. More burden results in back break and poor fragmentation. Too close spacing causes crushing and crater forming between holes, boulder in burden area and excessive toes. Too wide spacing results in inadequate fracturing between hole accompanied by bumps on the face and toe problem between the holes.

SANJIV KUMAR SINGH
Recognised Qualified Person,
Ltr. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

6.4 RISK ASSESSMENT

6.4.1 INTRODUCTION

6.4.1.1. Mining activities are associated with several potential hazards both to the employees and the public at large. A worker in a mine should be able to work under conditions that are adequately safe and healthy. At the same time the environmental conditions should be such as not to impair his working efficiency. The various safeguards will be taken to ensure the safety of the mine and that of employees are provided in the Mines Act, 1952.

6.4.2 IDENTIFICATION OF HAZARDS

6.4.2.1. There are various factors, which can cause disaster in the mines. These hazards are as follows:

i. Drilling
ii. Blasting
iii. Overburden handling
iv. Heavy Machinery and
v. Explosives storage.

6.4.3 DRILLING AND BLASTING

6.4.3.1. Most of the accidents from blasting occur due to the projectiles, as they may some times go even beyond the danger zone, mainly due to over charging of the shot holes as a result of certain special features of the local ground. Flying rocks are encountered during initial and final blasting operations. Vibrations also lead to displacement of adjoining areas. Dust and noise are also problems commonly encountered during blasting operations.

6.4.4 OVERBURDEN HANDLING

6.4.4.1. The overburden dumps may cause landslides. High overburden dumps created at the quarry edge may cause sliding of the overburden dump or may cause failure of the pit slope due to excessive loading, thereby causing loss of life and property. Siltation of surface water may also cause run-off from overburden dumps.

6.4.5 HEAVY MACHINERY

SANJIV KUMAR SINGH
Recognised Qualified Person
Regn. No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

6.4.5.1. Most of the accidents during transport of dumpers, trucks, poclains, ripper dozers and other heavy vehicles are often attributable to mechanical failures and human errors.

6.4.6 EXPLOSIVE STORAGE

6.4.6.1. Most of the accidents occur during, transportation, storage, handling and use. Accidents often attributed to failure of workman to observe safety rules and regulations.

6.5 DISASTER MANAGEMENT

6.5.1 MEASURES SUGGESTED TO AVOID ACCIDENTS DUE TO BLASTING HAZARDS

- Shots shall not be fired except during the hours of day light or until adequate provision is made for artificial lighting and the holes charged on a particular day shall be fired on the same day;
- Shots, if fired after hours of daylight, should be muffled so that the flying fragments from the blasting material do not project beyond a distance of 10 m from the place of blasting;
- Adequate shelters or other protective structures shall be provided to the workers at all times;
- The shot fired shall give sufficient warning by effective signal over the entire area falling within a radius of 500m.
- Where any permanent building or structure is damaged within the danger zone, the aggregate maximum charge in all the holes fired at any particular time shall not exceed 2 kg.
- If a single shot exploder is used or if blasting is done with ordinary detonator, the shot-firer shall not fire more than fifty shots in one shift, but if multi-shot exploder is used, the number can go up to eighty;
- During the approach and progress of an electrical storm, adequate precaution shall be taken;
- No shot hole shall be drilled in the overburden above the underground galleries.

6.5.2 MEASURES TO PREVENT THE DANGER OF OVERBURDEN

- A stone wall should be built around the toe of each active dump at a distance of about 50m from the toe;
- To prevent the failure of overburden slopes, especially during the rainy

SANJIV KUMAR SINGH
Approved Qualified Person
vide 34011(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/ (15)/2009-CPAM dated 27.09.10.

season, the following precautions shall be taken:

- Proper terracing of the dump slopes, with a maximum dump height of 10 m should be maintained;
- In flat areas where the dumping operations have come to an end, the slope angle should be flattened by about 5° lower than the angle of repose, which varies from site to site but not less than 25°;
- Planting vegetation as early as possible over the overburden dump slopes;
- Provide drainage channels along the overburden dump toe for additional protection, in such a way that a distance of 15m should be maintained left between the overburden dump and the bench; and
- If a mine is abandoned, the bench and overburden dump should be separated from each other by digging a trench of 8 to 10 m width.

6.5.3 MEASURES TO PREVENT ACCIDENTS DUE TO TRUCKS AND DUMPERS

- All transportation within the main working area should be carried out under the direct supervision and control of the management;
- The vehicles must be maintained in good repairs and checked thoroughly at least once a week by a competent person authorized for this purpose by the management;
- Broad signs should be provided at each and every turning point, specially for the guidance of the drivers at night;
- To avoid dangers while reversing the trackless vehicles, especially at the embankment and tripping points, all areas for reversing of lorries should, as far as possible, be made man free, and there should be a light and sound device to indicate reversing of trucks; and
- A statutory provision of the fence, constant education, training etc will go a long way in reducing the incidence of such accidents.

6.5.4 STORAGE OF FUELS AND EXPLOSIVE MATERIALS

- The explosives will be stored in a magazine of 4T capacity.
- Based on the study of accidents in chemical industry in India over a few decades, a specific legislation was enacted and enforced by the Government of India (GOI) in 1989 in conjunction with Environment

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2005-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2005-CPAM dated 27.09.10.

Page VI-18/ JAMTA

Protection Act, 1988, referred to as "GOI rules 1989". These rules are for the purpose of identifying major hazardous installations applying certain criteria on toxic, flammable and explosive properties of chemicals.

- Besides, the criteria list of hazardous substances with their threshold quantities is provided in part II of schedule I of the rules.
- Schedule-II of the rules sets out the threshold quantities for isolated storage units.
- Schedule-III gives a list of hazardous chemicals with their threshold quantities. In this schedule different chemicals are classified into different sub group viz. Group 1 - Toxic substances, Group 2 - Toxic substances, Group 3 - Highly reactive substances, Group 4 - Explosive substances and Group 5 - Flammable substances.
- Schedule-IV of the rules indicates various operations, which are hazardous during production, processing or treatment of organic and inorganic chemicals.
- The of storage of flammable and explosive materials used in mines to determine the Threshold quantities as notified GoI Rules 1989 and the applicable rules are identified. The results are summarized in **Table 6.4.** The major hazardous materials stored and used in the mines are Diesel, Ammonium nitrate and Nitroglycerine.

TABLE 6.4
APPLICABILITY OF GOI RULES TO HAZARDOUS MATERIALS STORAGE

Sl. No.	Chemical	Annual Requirement/storage	Listed in Schedule No.	Threshold Qty as per GOI Rules (application of rules)
1	Diesel	40 KL (10 KL storage)	1(2)	*(5, 7-9, 13 - 15 12)* 25 MT *10 -* 200 MT
2	Ammonium Nitrate	540 T (25 T Magazine)	1(2)	*(4,5 7-9 15)* 350 *10 -* T 2500 T

Since the storages of all hazardous materials in Pakri Barwadih - A Mines are much less, when compared with threshold storage quantities, the mine management advised to follow the Indian Explosive Act and Rules 1983 for handling of explosives.

6.6 RECOMMENDATIONS

i. It is recommended to carry out slope stability study before/during mining operation warranting storage of Overburden dump and stability of benches.

ii. It is recommended the Blasting Pattern shall be designed in consultation with CMPDI or a contemporary agency before conducting any blasting for the purpose of winning coal.

iii. Prevailing statute at the time of commencement of mining operation shall be observed regarding storage of hazardous material within the mining lease area.

iv. Area Drainage Study/Nalla Diversion Study for PB North West (Sector A) had not been carried out. Straightening of nalla for a distance of 1km is proposed in this mining plan. However in the favour of safety it is recommended to carry out study and its approval before commencement of mining operations to prevent potential mundation hazard.

v. In the present Mining Plan diversion/alignment of Khora Nala–A is envisaged to be explored during 25th year of mining operation over the back filled area of PB west to enable extraction of additional 33.18 Mt (10.95 of PB West & 22.23 of PB North West) coal blocked under barrier between the two quarries (PB & PB NW) & coal blocked under Dump C after 38th year of mining operation. It is recommended to carryout separate study for said diversion at appropriate time.

vi. Forest clearance of PB North West (Sector A) had not been obtained. As approximately 65% of land of this sector falls in forest land category it is recommended to obtain clearance from MoEF&CC before commencement of mining operations.

vii. EIA/EMP clearance PB North West (Sector-A) had not been obtained. As more than 65% of land of this sector is forest land approximately it is recommended to carry out EIA/EMP study and obtain its approval from MoEF &CC before commencement of mining operations.

SANJIV KUMAR SINGH
Recognised Qualified Person
RQP No. 34011/(15)/2009-CPAM
MoEF&CC, Govt. of India

CHAPTER VII

COAL HANDLING, WASHING & MODE OF DISPATCH

SANJIV KUMAR SINGH
Recognised Qualified Person
Ex. 34C (TS)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जागरण/PAWAN DEV JAMTA
Dep. ... EOC, A-8A, Sector-24, Noida-201301 (U.P.)

CHAPTER VII

COAL HANDLING, WASHING & DISPATCH OF COAL

7.1. Use of Mineral

Pakri Barwadih block has been allocated to NTPC to undertake coal mining for exclusive use of coal for its power plants. Coal linkages already in place shall not be disturbed and NTPC shall continue to honour its commitments towards long-term linkages from nationalised companies to its thermal power plants.

All coal mined from the block, shall be used in NTPC power plants and no coal shall be disposed of in any other manner, whatsoever, without prior permission, in writing, of the Govt. of India.

NTPC has presently planned Open Cast. Underground mining shall also be planned to extract the reserves below 300 meters at later date. This project is planned for produce 18 million tonnes of coal out of which 15 million tonnes shall be produced by PB West & East Quarry while 3 million tonnes shall be produced by PB NW Quarry. The produced ROM coal shall be D-E grade/ (G-8) from PB North West while D-F grade / (G-8) from PB West & East. Coal produced from all the three quarries shall be power grade coal.

7.2. Mineral Processing

NTPC power plants have been designed to accept F grade coal. The entire coal production from the mine has been basket linked to different power houses. Rom coal directly received from the mine is expected to have 1000-1200 mm size, ROM coal shall be screened and oversize coal shall be reduced to -50mm. The ROM coal shall be crushed in two stages, at initial stage (Primary Crushing) size shall be reduced from 1000-1200 mm to 200-250 mm and in the subsequent stage (Secondary Crushing), size shall be reduced from 200-250 mm to (-) 50mm. If necessary suitable de-shaling/dry de-shaling arrangement will be provided, as may be required from time to time.

The above processing arrangement shall be installed at the pit head of the mine. Further processing if necessary shall take place at the power plant end.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

7.3. Surface Transport of Coal

ROM Coal shall be transported from active faces of all three quarries namely PB West, PB East and PB NW, in coal body dumpers (60T) to their respective pit head Coal Handling Plant (CHP) hoppers. CHP of PB West shall be dismantled at the exhaustion of coal from the same. Each of CHP hoppers are designed to cater to the requirement of volume of production of respective quarries and provided with enough space for unloading of two dumpers.

The processed coal shall be fed to the Cross country conveyors which in turn convey the coal to Benadag Yard being constructed by NTPC. Benadag Yard is located at approx. 14 km from the project boundary.

Indian Railway wagons shall be loaded by rapid loading system provided in loading silos. Onward transportation of coal shall be through Indian Railway to identified power plants of NTPC.

Cross Country Conveyor System from the mine to Benadag Siding is presently under construction. Till the completion of the conveyor system coal shall be transported to the nearest Railway siding (Benadag) by road.

7.4. Coal Handling Plant for Western & Eastern Quarry

As per this Mining Plan built up period for western quarry is 12 years, CHP shall be commissioned phase wise to handle 15 million tonnes of coal initially for western quarry. During period of full production this CHP shall be handling entire coal production from western quarry. During the overlapping period of 3 years separate CHP shall be installed to handle the coal from Eastern quarry. As coal production from western quarry diminishes, and coal production from PB East quarry surges the CHP of Western quarry shall be dismantled and simultaneously installed for Eastern quarry in phases. Brief of working philosophy of CHP of PB West and PB East is described below:

7.4.1. GENERAL

The coal handling plant has been designed to crush the ROM (-) 1000-1200mm feed from different pits to produce (–) 50 mm sized coal. The major process facilities of proposed CHP will comprise of the following:

a. In-pit Skid mounted crusher/ Crusher equipped with apron feeder and hopper
b. Long distance belt conveyor
c. Secondary crushing
d. Product stockpiling & reclaiming
e. Cross country conveyor from Reclaimer to Railway Loading point
f. Loading & despatch

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

The coal from different benches will be transported by dumpers and will be fed to the in-pit crushers / Crushers through apron feeders, placed at suitable locations in different pits to generate (-) 250 mm product. The crushed coal will be brought to long distance belt conveyor through conveyors. The long distance belt conveyor running along the north-eastern periphery of the pits will transport the crushed coal to secondary crushers/ Crushers to further reduce the product size to (-) 50 mm. The sized coal will be further conveyed to product stockpile, where it will be stacked and reclaimed through stacker reclaimer unit, or will be directly discharged into the cross country conveyor. The cross country conveyor shall transport the sized coal and directly load into the railway wagon through silos. The CHP has been planned to handle ultimate total capacity of 15 Mty of coal. Initially, all the 3 skid mounted primary Crushers will be installed along with one circuit of long distance belt conveyor, 1 set of stacker reclaimer, 2 circuits of cross country conveyor and 1 no. silo has been envisaged to be commissioned in the first phase. Subsequently, the 2nd circuit of LDBC will be ready by 4th year of production, second set of stacker reclaimer, cross country conveyor and second silo will be commissioned by 10/11th year to meet the rated capacity of 15 Mty.

7.4.2. DESIGN PARAMETERS

a. BASIC DATA

- Production capacity in MTY - 15.0
- No. of working days / annum - 330
- No. of working shifts / day - 3
- Duration of each shift (hours) - 8
- Feed size of R.O.M coal (mm) - (-) 1000-1200
- Product size in mm - (-) 50

b. CHP WORKING SCHEDULE

Crushing, storage and loading will be done in three shifts per day and seven days a week.

c. SYSTEM CAPACITY

The handling capacity of the CHP has been decided to match with the production capacity of the mine. In order to meet the fluctuations of coal output from the mine due to irregularities of despatch / transport system

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011(15)/2009-CPAM
Ministry of Coal, Govt. of India

and seasonal fluctuations, the design capacity of the CHP has been fixed accordingly.

7.4.3. SALIENT FEATURES

The proposed CHP consist of the following units:

- Three no. of Skid mounted Crushing station equipped with apron feeder and receiving hopper. Apron feeders will feed coal into primary Crusher.
- 3 nos. of Crushers (Primary) of 1600 TPH at receiving hopper to crush coal from 1200 mm to 250 mm size.
- Two streams of 1800mm wide Conveyor systems upto the secondary crushing station.
- 4 nos. of Crushers (Secondary) of 1200 TPH each with vibro feeders at Secondary crushing house to crush coal from 250 mm to 50 mm size.
- Conveyor systems of 1800 mm width and 2200 tph from secondary crushing station upto the stockyard.
- Two numbers of Stacker Reclaimer of 2500 tonnes per hour capacity each.
- Three circuits of 1800mm wide belt conveyors of 2500 TPH each capacity upto loading point.
- Two nos. of 4000 te capacity Silo each containing 2sets of 5500 TPH capacity Rapid loading system with 2x72te capacity pre-weigh hoppers.
- One numbers of magnetic separators in each flow.
- One numbers of metal detectors in each flow.
- One numbers of belt weighers to weigh the coal in each flow after secondary crushing.
- Miscellaneous facilities like dust control system, firefighting and ventilation system. Plant cleaning and Infrastructure for preventive maintenance are also envisaged. Necessary Electrical, interlocking, signalling and communication facilities.

7.4.4. IN-PIT SKID MOUNTED SEMI - MOBILE CRUSHING STATION

Coal receiving unit will be of 200 te capacity, semi-mobile, skid mounted consisting of Apron/Chain feeder of 1600 TPH capacity with matching suitable electric drive motor. Adequate height skirt plates will be installed on the apron/ chain feeder in

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जमुआ/PAWAN DEV JAMTA
Department of Mining
Dep... Mining ... Consulting
... LIMITED
EDC, A-54, Sector-24, Noida-201301 (U.P.)

such a way that the assembly acts as a receiving hopper to receive coal from tipping trucks. The apron/ chain feeder will be of robust construction, heavy duty type and suitable for round the clock continuous operation. It will be suitable for use in adverse environmental conditions and dusty surroundings. The feeder will be capable of absorbing the impact of falling lumps of maximum lump size. It must be capable of receiving the direct impact of coal from tippers.

The R.O.M. coal brought from the quarry by tippers will discharge into the said sizing plant. The unit will be complete in all respect, could be easily dismantled, shifted and installed at new location. Major components of the unit are as under.

Low height roll Crusher (preferably double roll) has been envisaged to size the coal to (-) 250 mm size with matching suitable electric motor drive. The sizing roll will be fitted with replaceable sizing teeth which shall slide over the slots provided in the shaft with picks (heavy duty). The Crusher design will be such that it be able to have round the clock continuous operation. It will be suitable for dusty condition. It will be able to start at full load conditions and robust enough.

Suitable lifting devices will be provided for ease in installation, dismantling and taking out components for maintenance. The components/ parts will also be provided with lifting lugs.

Unit will be designed to provide suitable maintenance platform for inspection, maintenance etc. It will also have an operator's cabin installed at a suitable location for the operator of the machine. Operator should be able to view the crushing operation.

Suitable dust suppression system will be provided to suppress dust particles during discharge of coal by tipping trucks etc and also at transfer points. Portable type fire extinguishers of different type will be provided in the Crushing unit to prevent fire hazards.

The electrical system of the semi-mobile sizing units consist of the A.C drives and (related Motor Control Centre for Apron / Chain feeder, Crushers etc. Along with this the power supply arrangement should also cater for dust suppression system, electrical hoists, illumination (Plant & Peripheral) and other sub system. Power at 3.3/6.6 kV will be made available up to the sizing units

SANJIV KUMAR SINGH
Recognised Qualified Person
Ref. 34011/(15)/2009-CPAM
Govt. of India

For the HPRO/PAWAN DEV JAMTA
(Authorised Signatory)
Director, Mines & Mineral Consultancy
ECIL – HYDERABAD

7.4.5. SPECIFICATION OF SECONDARY CRUSHER

• Nos. :	04 (Four)
• Material to be handled:	Coal
• Feed size of ROM. coal (in mm):	(-) 250
• Product size (in mm):	(-) 50
• Average HGI of coal:	45 (max.)
• Bulk density of coal:	1000 kg/m3
• Crushing capacity:	Rated-1600tph
• Designed:	1850 tph
• Moisture content:	upto 10%
• Ambient temperature:	50 deg C
• Duty:	Continuous,
Hrs/day:	20
Per Year:	350
• Power Supply:	3.3kV, 3phase, 50Hz,

7.4.6. CRUSHER LOCATION

Considering the gradual increase of production from 2.34 Mt to 10 Mt in the first 5 years, the required nos. of Crushers will be added at different pits starting from the second year of construction period as indicated in the table showing phasing of CHP. These Crushers will be located at the mouth of the different pits viz WP-1, WP-2, WP-3 & WP-4 in the initial period. Further enhancement of capacity from 10 Mt to 15 Mt. will start in the 11th year of production from WP-IV pit. Two no. of Crushers from pit WP-I, WP-2 and WP-3 will be shifted to pit WP-4 in the 8th year and 10th year respectively.

On advancement of faces at WP-4 pit, the Crushers will be shifted and located at suitable places to keep the dumper lead minimum.

7.4.7. CONVEYING ARRANGEMENTS

The sized coal will be discharged to collecting-cum-elevating conveyor which in turn will discharge it to the long distance belt conveyor having length of about 5 km. The entire product will be conveyed to the secondary crushing station where coal will be crushed to (-) 50mm. Finally coal will be reclaimed through 2 no. of 1800mm wide belt conveyors and conveyed to the product stockpile. Two circuits of long

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India
PAWAN DEV JAMTA
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

distance belt conveyor (LDBC) with each having 2500 TPH capacity has been envisaged up to the product stockpile. Stacker & Reclaimers have been proposed for stacking the coal on the ground and loading on the cross country conveyors. Stacker and Reclaimer shall be installed at the terminal point of the long distance belt conveyor and starting point of cross country conveyor for carrying coal to Silo for fast loading into the rakes. These (-)50 mm coal will be transported to the Silos located at loading point through two circuits of cross country belt conveyors having a length of about 14 km of above mentioned specification.

7.4.8. Product Stockpile

Open air product stockpile of 800m x 400m dimension has been proposed with facility of stacking and reclaiming through rail mounted Stackers & Reclaimers with capacity of 2500 tph each. There will be a bypass arrangement at product stock pile wherein the sized coal can be directly fed to the cross country conveyor, without stacking, for loading into the wagons through silos. The product stockpile can accommodate 4 lakh tons of coal ie. about 10 day production of the mine at rated capacity.

7.4.9. BROAD TECHNICAL PARAMETERS OF STACKER-RECLAIMER

The main characteristics of the Stacker-Reclaimer shall be as follows.

- Type: Rail mounted, self-propelled, luffable, slewable, Boom type Stacker cum Bucket wheel Reclaimer.
- Nos. : 02 (Two)
- Material to be handled: Coal
- Duty: Continuous, 20 hrs. /day, 350 days a year.
- Capacity, tph: Stacking
  Rated: 2500, Designed: 2875
  Reclaiming
  Rated: 2500, Designed: 2875
- Power Supply:
  3.3kV, 3phase, 50Hz, through Flexible Cables and Cable Reeling Drums.
- Boom length, m: To suit the stock-pile width
- Track centres: 6.0 m
- Length of travel: 750m

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JANITA

- Travel speed: Forward 0-20 m/ min stepless
- Hoisting speed: 2 m/min (approx.)
  /Luffing Range to suit the stock-pile width/ length
  (With respect to discharge pulley)
- Cross section of the stock file: Triangular
- Bottom width of stock pile: 25 m
- Height of stock: 10-15 m Pile w.r.t. to rail level.

7.4.10. WAGON LOADING SYSTEM

Fast loading Silo having 4000 T capacity suitable for flood loading of Indian Railway Rakes 58 Box 'N' or long 116 Box 'N' has been proposed. Silo shall be of RCC construction each fitted with two nos. pre-weigh bins and telescopic swing chutes suitable for loading at the rate of 5000 TPH.

The brief specification of silos is as follows

i) Capacity selected	4000 T
ii) Diameter (apprx.)	20 m
iii) Height (apprx.)	55 – 60 m

7.5. Coal Handling Plant for PB North-West (NW) Quarry

7.5.1. Introduction

The rated coal production of 3.0 Crusher from PB North West (Sector-A) Coal Block is required to be fully processed through separate Coal Handling Plant (CHP) to ensure consistent size and continuous supply of coal to thermal power station (TPS).

Coal from the Quarry NW shall be transported upto the receiving hopper, in the CHP ROM coal shall be reduced to -50mm size and stored in the truck loading hoppers. 20-40 tonner trucks shall be loaded through truck loading system and transported upto surge bunker located near PB East & West surge bunker. Reclaim conveyor shall load the coal in the cross country conveyor. Through a separate stream of conveyor, coal shall be conveyed upto loading silo located at Benadag Yard. Rapid loading system installed in the Loading Silo shall load the coal in the Railway wagons from where the coal shall be despatched to the identified power plant of NTPC.

SANJIV KUMAR SINGH
Recognised Qualified Person
Regd. No. 34011(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
ECC, A&A, Sector-24, Noida-201301 (U.P.)

However, detail feasibility study is recommended to finalise the following:

a. Coal evacuation system for PB (NW) Quarry adjacent to cross country conveyor of PB(West &East)
b. Location and capacity of Rapid Loading System for PB (NW) Quarry

7.5.2. General

The coal handling plant has been designed to crush the ROM (-) 1000-1200mm feed from different pits to produce (–) 50 mm sized coal. The major process facilities of proposed CHP will comprise of the following:

- Receiving hopper
- Primary / Crusher equipped with apron feeder and hopper
- Long distance belt conveyor
- Secondary crushing
- Product stockpiling & Reclaiming
- Cross country conveyor from reclaimer to Railway Loading point
- Loading & dispatch

The coal from active faces/different benches will be transported by 60T dumpers and fed to the s / Crushers through apron feeders, placed at suitable locations in the surface to generate (-)250 mm product. The belt conveyor will transport the crushed coal to secondary s/ Crushers to further reduce the product size to (-) 50 mm. The CHP has been planned to handle ultimate total capacity of 3 Mty of coal.

7.5.3. DESIGN PARAMETERS

7.5.3.1 BASIC DATA

- Production capacity in MTY - 3.0
- No. of working days / annum - 330
- No. of working shifts / day - 3
- Duration of each shift (hours) - 8
- Feed size of R.O.M coal (mm)- 1200
- Product size in mm - (-) 50

7.5.3.2 CHP WORKING SCHEDULE

Crushing, storage and loading will be done in three shifts per day and seven days a week.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN [illegible] JAMTA
[illegible]
[illegible] NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

7.5.3.3 SYSTEM CAPACITY

The handling capacity of the CHP has been decided to match with the production capacity of the mine. In order to meet the fluctuations of coal output from the mine due to irregularities of despatch / transport system and seasonal fluctuations, the design capacity of the CHP has been fixed accordingly.

7.5.4. SALIENT FEATURES

The proposed PB-NW Quarry CHP consist of the following units:

- Two no. of Primary Crushing station equipped with apron feeder and receiving hopper. Apron feeders will feed coal into primary Crusher.
- 4 nos. of Crushers (Secondary) of 300 TPH each with vibro feeders at Secondary crushing house to crush coal from 250 mm to 50 mm size.
- Conveyor systems of 800 mm width and 300 tph
- Two numbers of Stacker Reclaimer of 600 tonnes per hour capacity each.
- One no. of 2000 te capacity Silo each containing one sets of 3500 TPH capacity Rapid loading system with 2x72 te capacity pre-weigh hoppers.
- One numbers of magnetic separators in each flow.
- One numbers of metal detectors in each flow.
- One numbers of belt weighers to weigh the coal in each flow after secondary crushing.
- Miscellaneous facilities like dust control system, firefighting and ventilation system. Plant cleaning and Infrastructure for preventive maintenance are also envisaged. Necessary Electrical, interlocking, signalling and communication facilities.

7.5.5. COAL RECIEPT AND PRIMARY CRUSHING

Run of Mine (RoM), 1000-1200 mm coal from the mine shall be transported by 60 T dumpers to crushing arrangement located at pit head. The RoM coal shall be reduced to (-) 200-250mm size through primary crushing arrangement located at the pit head.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, GOVT. of India

पवन देव जमता/PAWAN DEV JAMTA
Director, Geology, Mining & Environmental
Dr. ... LIMITED
... Sector-24, Noida ... (U.P.)

SPECIFICATION OF PRIMARY CRUSHER

• Nos.	02
• Material to be handled:	Coal
• Feed size of ROM. coal (in mm)	1200
• Product size (in mm)	(-) 250
• Average HGI of coal	45 (max.)
• Bulk density of coal	1000 kg/m3
• Crushing capacity	Rated-300tph
• Designed	350 tph
• Moisture content	upto 10%
• Ambient temperature	50 deg C
• Duty	Continuous,
Hrs. /day	20
Days a year	350
• Power Supply:	3.3kV, 3phase, 50Hz,

7.5.6. SECONDARY CRUSHING

Crushed Coal of (-) 200-250 mm size from primary shall be fed directly onto the secondary crushing arrangement for further sizing of coal to (-) 50mm. The crushed coal shall be transported to surface hoppers through conveyor system.

SPECIFICATION OF SECONDARY CRUSHER

• Nos.	04 (Four)
• Material to be handled	Coal
• Feed size of ROM. coal (in mm)	(-) 250
• Product size (in mm)	(-) 50
• Average HGI of coal	45 (max.)
• Bulk density of coal	1000 kg/m3
• Crushing capacity	Rated-300tph
• Designed	350 tph

SANJIV KUMAR SING
Recognised Qualified Perso
No. 34011/(15)/2009-CPA
Ministry of Coal, Govt. of In

PAWAN DEV JAMTA
Dep. of General Manager
NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

• Moisture content	upto 10%
• Ambient temperature	50 deg C
• Duty	Continuous,
Hrs. /day	20
Days a year	350
• Power Supply:	3.3kV, 3phase, 50Hz,

7.5.7. Product stockpile

Open air product stockpile of 400m x 200m dimension has been proposed with facility of stacking and reclaiming through rail mounted stackers & reclaimers with capacity of 600 tph each. There will be a bypass arrangement at product stock pile wherein the sized coal can be directly fed to the cross country conveyor, without stacking, for loading into the wagons through silos. The product stockpile can accommodate 1 lakh tons of coal ie. about 10 day production of the mine at rated capacity.

BROAD TECHNICAL PARAMETERS OF STACKER-RECLAIMER

The main characteristics of the Stacker-Reclaimer shall be as follows.

1) Type : Rail mounted, self propelled, luffable, slewable, Boom type Stacker cum Bucket wheel Reclaimer.

2) Nos. : 02 (Two)

3) Material to be handled: Coal

4) Duty: Continuous, 20 hrs/day, 350 days a year.

5) Capacity, tph: Stacking
Rated: 600, Designed: 650
Reclaiming
Rated: 600, Designed: 650

6) Power Supply:
3.3kV, 3phase, 50Hz, through Flexible Cables and Cable Reeling Drums.

7) Boom length: To suit the stock-pile width

8) Track centres: 6.0 m

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

9) Length of travel: 250m

10) Travel speed: Forward 0-20 m/ min stepless

11) Hoisting speed: 2 m/min (approx)
/Luffing Range to suit the stock-pile width/ length
(With respect to discharge pulley)

12) Cross section of the stock file: Triangular

13) Bottom width of stock pile: 25 m

14) Height of stock: 10-15 m Pile w.r.t. to rail level.

7.5.8. Wagon loading system

Fast loading Silo having 2000 T capacity suitable for flood loading of Indian Railway Rakes 58 Box 'N' or long 116 Box 'N' has been proposed. Silo shall be of RCC construction each fitted with two nos. pre-weigh bins and telescopic swing chutes suitable for loading at the rate of 3500 TPH.

The brief specification of silos is as follows.

i) Capacity selected	2000 T
ii) Diameter (apprx.)	18 m
iii) Height (apprx.)	25 – 30 m

7.6. DUST CONTROL SYSTEM

The objective of this system is to eliminate the air born coal dust or suppress the dust at its source. The system involves confinement of the dust within the dust producing area by a curtain of moisture and wetting the coal dust by direct contact between the particles and droplet of water. Adequate number of precision anti-clog nozzles will be installed at suitable locations for suppressing dust by spraying water mixed with suppressant. Suitable control for dust suppression shall be provided and the system shall be so inter-locked that it functions only when the conveyor system is operating or the loading operation is on. Fog type dust suppression system will be provided wherever possible.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जमता/PAWAN DEV JAMTA
Dy. ... NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

7.7. NOISE CONTROL

Noise pollution causes fatigue to operating personals. Provision will therefore be made to keep down the noise level to the extent possible. All machine mountings will have in their foundations anti-vibration pads/sheets for reducing the vibration and thereby noise. All transfer chutes and hoppers, silo shall have wear resistant rubber or ultra-high molecular weight plastic / synthetic liners of various thickness as per design requirement and their suitability.

7.8. FIRE FIGHTING SYSTEM

Necessary firefighting system has also envisaged for the plant, which includes fire hydrant tees at strategic locations at equal spacing of 25 to 35 meters with suitable water supply pipe lines. Also portable type fire extinguishers to deal with electrical / oil /ordinary fires shall be provided at all strategic locations in the plant.

7.9. PLANT CLEANING SYSTEM

To facilitate cleaning at strategic locations ample number of high pressure water servicing points have been envisaged. These service points will be so located that with a 15/20 m long hose any working area in the plant or equipment working place can be reached. These service points will be provided with quick connecting hose couplings for easy fixing and dismantling of hoses.

7.10. PLANT PREVENTIVE MAINTENANCE

For effective maintenance of all the equipment, there will be sufficient working space around the equipment/machinery. All the equipment and conveyor discharge drums/transfer points, etc shall have covered and well ventilated housing complete with access stair ways, hand rails, platforms, cross-over ladders, etc as required.

Necessary mono-rails electric hoists and chain pulley blocks at suitable points of adequate capacity will also be provided on respective floors for operational Control.

A control desk cum mimic panel will be provided in the control room from where the entire plant from crushing to ground stacking will be controlled. However for loading operation from silo, separate control desk cum panel shall be provided in the control room at rapid loading station. At the time of start, an alarm through

SANJIV KUMAR SINGH
Recognised Qualified Person
Regn. No. 3401I(15)/2009-CPAM
Ministry of Coal, Govt. of India

hooter will be blown to warn the working personnel.

7.11. ELECTRICALS

The main switching station for the coal handling plant shall be suitably located and will receive power from the Project substation.

The electrical system shall comprise:

- Power reception and distribution system
- Centralized sequence control–cum–interlocking, automation, signaling and instrumentation system
- Illumination of plant and adjacent area Illumination shall be provided as per Indian Electricity Rules.
- Centralized welding circuit
- Earthing arrangement for the plant shall be provided as per Indian Electricity Rules.

7.12. COAL SAMPLING

It is proposed to install automatic sampling system in the CHP. Coal from conveyors shall be collected by the sampler at pre- determined intervals to assess the quality of the coal being dispatched. The coal samplers shall be suitably located. The samples collected shall be sent to the laboratory for further analysis.

7.13. CIVIL & STRUCTURALS

The civil and structural work shall cover all aspects of civil and structural design based on detailed survey, soil and hydrological investigations, seismic data, etc.

7.14. MODE OF DESPATCH

RAILWAY SIDING

Considering the topography of the area, site near Banka Village, located at a distance of about 14 km from the block has been selected for the Railway Siding. Benadag Railway siding shall be constructed by NTPC This Railway siding is under construction which shall be connected with Hazaribagh Railway Station at approx. 9 km from Benadag Siding.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जमता/PAWAN DEV JAMTA
NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Three no. of Loading silos shall be constructed on the over the tracks out of which two silos of 4000T each capacity shall cater to the PB West & East Quarry the third shall be of 2000T capacity which will cater to the requirement of PB-NW Quarry.

ROAD TRANSPORTATION

Cross Country Conveyor System from the mine to Benadag Siding is presently under construction. Till the completion of the conveyor system coal shall be transported to the nearest Railway siding (Benadag) by road.

7.15. WASHING

Coal Block was explored during the period 2003-04 and no washability studies were conducted. As per the Geological Report average grade of the coal is G-10 (Grade –E) with a calculated GCV of about 4300 Kcal/kg. Based on the Geological Report the range of ash percentage varies from 16-51% in PB West & East Quarry and 7-50% in North West Quarry. The average ash for the mined out coal is estimated to be about 34%, hence no provision for coal washery has been made as of now.

It is proposed to dispatch the ROM sized coal (-50mm) by conveyor followed by rail to the End Use Plants (EUPs).

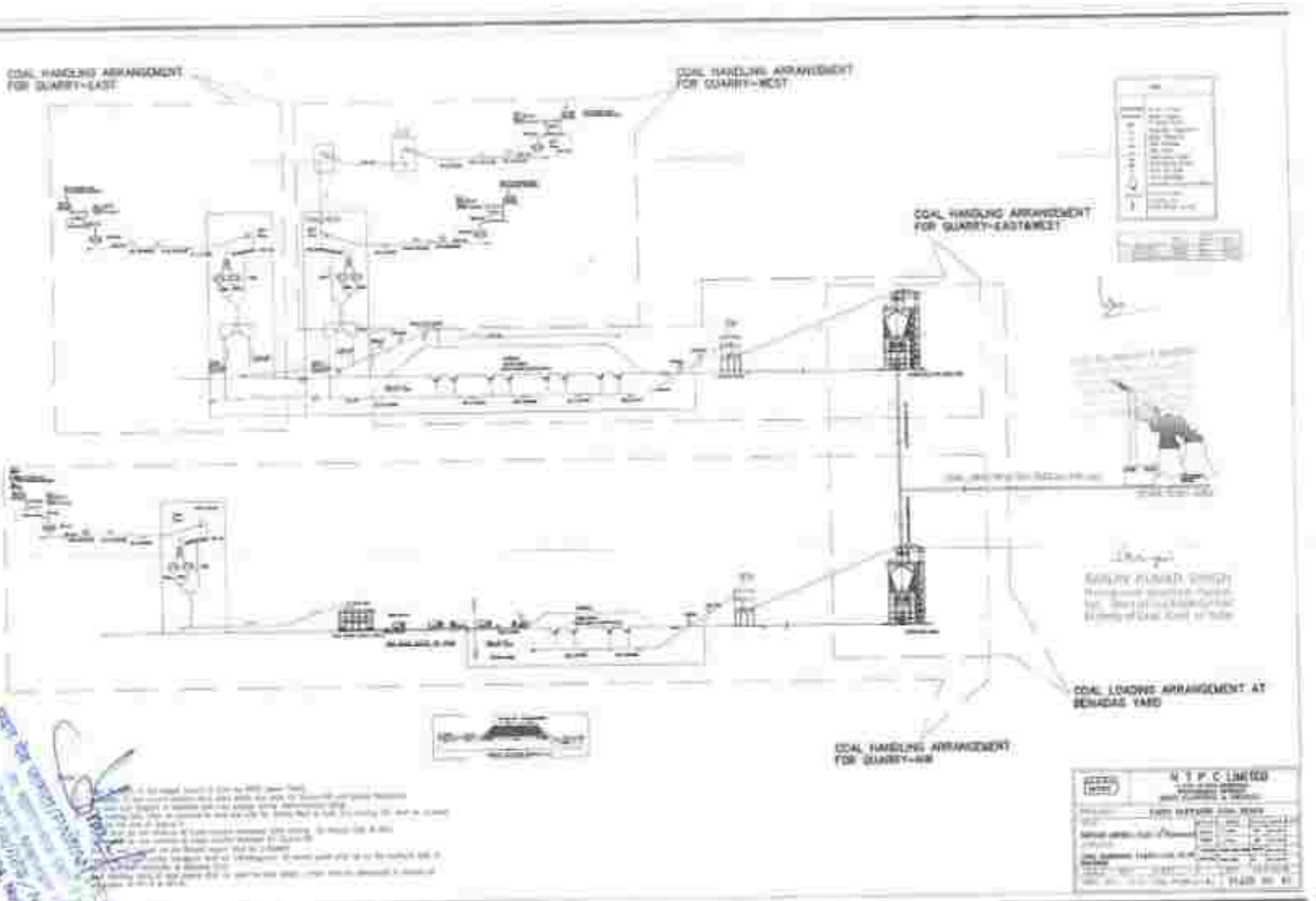
7.16. COAL QUALITY MONITORING LABORATORY

For quality assurance and control, it is proposed to establish a Coal Laboratory with all the necessary equipment for daily analysis of the coal quality at Mine end.

7.17. DRAWINGS

A Coal flow diagram for proposed CHP has been given in the drawing.

SANJEV KUMAR SINGH
Recognised Qualified Person
Regd. No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India


COAL HANDLING ARRANGEMENT FOR QUARRY-EAST
COAL HANDLING ARRANGEMENT FOR QUARRY-WEST
COAL HANDLING ARRANGEMENT FOR QUARRY-EAST&WEST
COAL LOADING ARRANGEMENT AT BENADAS YARD
COAL HANDLING ARRANGEMENT FOR QUARRY-NW

CHAPTER VIII

INFRASTRUCTURE FACILITIES PROPOSED AND THEIR LOCATION

पवन देव अमता/PAWAN DEV AMTA
उप महाप्रबंधक (परियोजना)
Deputy General Manager (Construction)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)



CHAPTER-VIII

MINING INFRASTRUCTURE & FACILITIES

8.1 Introduction

Pakri Barwadih mine is planned to produce 18 Mt of coal per annum by Open Cast method of mining. Life of the mine shall be approximately 52 years as per the calendar programme. Besides maintaining large fleet of HEMM and ancillary equipment, it will employ approximately 2863 manpower including 367 manpower for operation of PB East in the initial two years. To improve overall availability/utilization of the mining equipment there is a need for flawless extraction of coal and OB, transportation and despatch of coal to the end use plant. Further to ensure proper administration and welfare of the personnel employed, there is a need to construct the infrastructure for safe and economic exploitation of coal. The layout has been designed to achieve the above objectives. All necessary facilities have been provided in the workshop to cater the need of the project.

Mostly separate infrastructure is planned for PB West quarry and PB NW Quarry. Infrastructure proposed for PB West quarry such as CHP, substation, workshop, administrative buildings etc. shall be utilised progressively for PB East quarry on restart after 25th years of Mining Operation and proportionate to the production. But the infrastructure/facilities which could not be shared with PB West quarry shall be constructed separately for initial two year as well as after the restart of PB East quarry (haul roads, culverts drainage system etc.). Certain facilities such as coal sampling lab, environmental cell, vocational training centre etc. shall be common for all quarries.

The target capacity & water requirements for each quarry are given in **Table 8.1**.

Table 8.1

Sl. No.	Quarry Name	Target Capacity in MTPA	Water Demand in MGD
1.	PB West &East Quarry	15	0.91
2.	PB North-West Quarry	3	0.2
	Total for PB Mine	**18**	**1.11**

As explained above separate infrastructure is proposed for PB-West & East quarry and PB- NW, details are as following:

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जाणता/PAWAN DEV JAMTA
Deputy General Manager (Commercial)
NTPC LIMITED
Sector-24, Noida 201301 (U.P.)

8.2 Infrastructure and facilities for PB West & East Quarry

8.2.1 Infrastructure facilities proposed

The area for the infrastructure facilities will be secured by a boundary fence and a soil bund on the edge of the mine. The proposed major buildings within and precincts of the mine boundary are as follows:

1. Heavy Earth Moving Machinery (HEMM) Workshop
   - a Welding Shop
   - b Tool Store
   - c Electrical Shop
   - d Office space for workshop management
   - e Shift in change room
   - f Washing facilities and toilets
2. Light Vehicle (LV) Workshop
3. Tyre Workshop & Tyre Storage Bay (open area)
4. Equipment Washing Facility
5. Office Building
6. Worker's Bathhouse and Canteen
7. Dispensary
8. Store
9. Engineering Section
10. Security Office
11. Fuel Depot
12. Coal Evacuation System and Coal Handling Plant
13. Electrical Power supply
14. Mobile Service Van
15. Approach Roads
16. Other roads and culverts
17. Domestic and Industrial water supply & sewerage
    - a Sources of water
    - b Industrial water supply
    - c Effluent Treatment Plant
    - d Industrial Sewerage
    - e Sewage Treatment Plant
18. Temporary Workshop

SANJIV KUMAR SINGH
Recognised Qualified Person
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA

1. Heavy Earth Moving Machinery (HEMM) Workshop (Maintenance Workshop)

The Maintenance Workshop shall have a concrete grade slab that is designed to support the loads by the next larger size of the heaviest unloaded vehicle in the quarry's fleet. It shall have minimum of six vehicle maintenance bays to handle the next larger size of the largest vehicle in the quarry equipment fleet. At least four of the six bays shall be "drive through" to allow the trucks to be serviced.

The Maintenance Workshop shall also provide separate space, of adequate size for the equipment being maintained.

A minimum of two bays shall be provided with rails embedded in the concrete grade slab. These rails shall be spaced to support all of the tracked equipment off of the concrete and the supporting rebar mat membrane shall be design to distribute this load without the concrete cracking.

The facilities shall include overhead crane(s) sized for the largest of the largest component load of the next largest size of the largest truck or the currently planned truck. The crane(s) shall service all of the maintenance bays and run the length of bays as required for positioning components for the vehicles being maintained.

The Maintenance Workshop shall primarily be an open frame steel structure without walls and with a roof height sufficient for truck/overhead crane clearance. Work areas which are sequestered from the main area (for reasons of safety, security etc.) shall be petitioned from the main areas with masonry walls. The facility shall have walls as required to frame in the crane and to provide a complete roof above the truck maintenance level. The roof shall include Control of rain runoff away from main access areas.

The ground level maintenance bays shall be an open structure except where access limitations have been described. A full building skin shall be provided at a level sufficient for truck clearance of the next largest of the largest truck in the mine fleet.

a. Welding Shop

Welding shop for repair of shovels, buckets, equipment etc. will be part of the HEMM Workshop.

b. Tool Store

Tool store will be provided in the HEMM Workshop to store the tools.

c. Electrical shop

Electrical shop will be provided as part of the HEMM Workshop for repairing

SANJIV KUMAR SINGH
Assistant Director Admin
No. 34011(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
ISO 9001:2008 Certified
JITPO LIMITED
201301 (U.P.)

of electrical parts.

Apart from the above, office space for the workshop management, shift change room, washing facilities and toilets shall also be provided. In addition to the Main Workshop, a temporary workshop has also been envisaged to cater to daily maintenance and routine checking of HEMM deployed in the mine.

d. Office space for workshop management

Office space in the separate building equipped with computers, communication facilities stationary and furniture shall be provided for workshop management. Office climate control shall also be provided based on the prevailing ergonomics.

e. Shift in change room

A separate shift in-charge room along with the office of Mine Time Keeper shall be provided. This room shall be equipped with computers, communication facilities stationary and furniture for manpower management during the shift operations. Office climate control shall also be provided based on the prevailing ergonomics.

f. Washing facilities and toilets

Washing facilities and toilets shall be provided as per requirement.

2. Light Vehicle Workshops

A separate maintenance workshop for highway vehicles shall consist of a minimum of six bays with a separate office and a secure storage room for parts and tools. This facility shall include a concrete grade slab, and primarily framed from steel with reinforced masonry walls. No garage doors are required but the facility shall have walls on two sides and shall have a complete roof. The roof shall include control of rain runoff away from main access areas.

3. Tyre Workshop

This facility shall consist of a heavy floor slab sufficient to support the haul track and the forces induced from a floor jack or lift as required to change wheels tyres on the haul truck. This facility shall also include a complete roof to control rain runoff away from main access areas. The facility shall also incorporate a secure tool storage room locker with benches to allow workmen to change from their work clothing, a toilet and an office.

4. Equipment Washing Facility

This facility shall include a large concrete grade slab with rail embedded to protect the slab from tracked equipment. The slab shall be sloped to direct water to the settlement basins. This facility shall include the washing

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

BHAVAN DEV JAMTA
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

equipment, including water cannon; access platforms; setting tanks; oil traps and oil collecting tanks. The settling tanks shall be designed to allow a small pay loader to drive in to the tank to collect large deposits of silt or other materials deposited from washing the vehicles.

5. **Office Building with Medical Clinic**

A single-story Office Building shall be provided to serve mine support functions such as; engineering; mine supervisors and managers; the canteen; document storage; information Technologies (IT) and computer backup; mine administration; secret ration; secretarial and other support staff. The building shall also provide a minimum of four meeting rooms and have a waiting room. This office building will also include First Aid Medical clinic.

6. **Worker's Bathhouse and Canteen**

A separate canteen for the hourly staff shall be provided. It shall have showers, changing areas, toilets, kitchen, a canteen serving area and an area for recreation. For employee morale, plans for this facility shall include features that make this a facility that the workers enjoy.

7. **Medical unit (Dispensary)**

This facility shall comprise of containers for first aid and handling medical emergencies, offices for doctors & nursing staff, emergency ward, ward for patients, toilets, kitchen, medicine room, ambulance van etc. It shall be equipped for treating the medical emergencies.

8. **Ware house and warehouse building (Store)**

The ware house shall be an open two-story facility with extensive fenced storage yard adjacent to the facility. Access to the fenced storage and the main equipment storage entry shall be controlled through a gate. A tool shop, the main switchboard, radio room, offices, toilets and meeting rooms shall be provided within this facility. Office space shall be provided to supplement the main office building.

9. **Engineering Section**

This is broadly divided in to five sub-sections

i. Machine shop
ii. Electrical repair shop
iii. Welding & structural shop

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011(15)/2009-CPAM
Ministry of Coal, Govt. of India

iv. CHP & Mechanical repair shop

v. Repair shop for Pumps and Pipes

The Engineering section is also equipped with a small workshop substation, scrap yard etc. A common 10/5 t capacity EOT has been envisaged to serve all the above mentioned shops of Engineering section to facilitate inter-shop equipment movement smoothly.

10. Security Office

Security offices shall be provided where access to the mine is required to be controlled. Suitable monitoring, recording and secure access controls shall be provided as appropriate where items stored are dangerous or easily removed.

11. Fuel Depot

A fuel storage facility shall be provided to ensure that the mine can operate for a period of about one month during an interruption of fuel delivery.

The facilities shall include containment walls of sufficient height to assure if any one tank is compromised any fuel stored shall that may be spilled shall be contained. The facility shall also include perimeter collection concrete culverts that drain to an oil interceptor which shall be design to collect localize spills that occur during normal fuelling. The trucks are to be fuelled on a concrete grade slab which is surrounded by the concrete culverts. Continuous grating shall be installed over the culverts which shall support any vehicle in the mine fleet.

12. Coal Evacuation System and Coal Handling Plant

Proposed coal evacuation system and coal handling plant has been elaborated in **Chapter VII**.

13. Electrical Power Supply

13.1 Construction Power Supply

It is proposed to arrange construction power at 11 kV from JSEB, Langatu substation located at about approx. 4 km from the project site before establishment of permanent power supply arrangement.

The 11 kV switchgear will be envisaged at main receiving substation for receiving construction power at 11 kV. The power supply for all construction activities, mine office and other amenity buildings can be fed at 11 kV. Provision of DG sets has also been made in the report to meet the construction power requirement at the time of power failure.

Competent
SANJIV KUMAR SINGH
Recognised Competent Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जामवाल/PAWAN DEV JAMWAL
Deputy General Manager (Corporate)
NTPC LIMITED

13.2 Intermediate Power Supply

It is anticipated that construction of 220 KV line from Patratu Thermal Power Station of JSEB may get delayed due to administrative & statutory requirements and therefore a provision has been kept for intermediate power supply by drawing power at 33kV from Langatu sub-station of JSEB to charge 33KV switchgear of Main Receiving Sub-station. This will support the requirement of 6 MVA power during initial period of mine operation.

13.3 Permanent Power Supply Arrangement, Main Substations and Power Distribution:

The maximum power demand estimated for the mine including CHP will be 32 MVA. The source of power will be made available is from JSEB, Patratu at 220 KV. Main receiving Substation of 220/33/11 KV will be constructed at Pakri Barwadih Coal Block.

Other substations like Coal Substation, OB Substation, Colony Substation and CHP substations are also being proposed for further distribution of power inside mine block. All the 33kV substations will receive power at 33kV from the double circuit power line originated from the 33KV switchgear of Main Receiving substation.

Layout of the proposed Sub-stations and power supply system broadly covers the following:

1. Power reception & distribution system.
2. Illumination of workshop and adjacent area.
3. Earthing

The power for workshop shall be made available from project sub-station.

Quarry area is proposed to be illuminated by "HIGH-MAST-TOWERS" located along quarry periphery with Sodium Vapour Lamps on each tower haul Road and inside quarry shall be illuminated by Mobile Towers with Metal-Halide lamps. Proper earthing has been envisaged for Electrical System. All electrical System will have protection from lightening and high voltage surges.

14. Mobile Service Van

Provision of a mobile service van has been envisaged to cater the need of repair of heavy equipment at site itself. Following equipment will be required to be installed:

- Welding Transformer, Gas cutting complete set
- Air compressor two stage displacement ,Tyre Inflation gauge

SANJIV KUMAR SINGH
Recommended Qualified Person
RQP No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

PRAVIN DEV JAMTA
Dy. General Manager (Geo-Mining)
For & on behalf of DHI/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

- Water container for drinking water
- Work table, Bench vice to be fitted on work table (1 no.)
- Lighting, Mechanical crane lifting device capacity 1 t
- Hand lamp 100 watts with 25 meters long wire
- Generator set complete with Engine Alternator coupling etc.
- 12/24 Volts D.C. Generator, Distribution board
- Hand operated pneumatic Grinder, Hand operated pneumatic drill
- Fire Extinguisher, First aid box

15. Approach Road

Hazaribagh -Tandwa road passes through eastern part of the block and this road shall be used as main approach road for the block. During operation of Quarry east this road shall be diverted to the easternmost periphery of the block. Approximate distance of road for connecting to quarry west is 10 km.

16. Other Roads & Culverts

16.1 Haul Road

For both the technological options, the length of double lane haul road has been estimated as 10.25 Km for plying of largest dumpers. Another haul road to the dump site having an estimated length of 4km has also been envisaged.

16.2 Heavy duty Road

The dumpers deployed in the benches will also go to the workshop for maintenance. Hence a provision of heavy duty road of 0.25Km has been envisaged in the present report.

16.3 Approach road to the Township

Approximately 10km long, 7.5m wide black top road connecting to the Residential colony has been envisaged.

16.4 Approach road to Magazine

The proposed magazine building has been envisaged to be located at a suitable location keeping in view safety and security requirements. Provision for 1.0Km magazine road has been envisaged in the present report.

16.5 Road along CCT conveyor

A 14 km long, 3.75m wide black top road from block to Banadag yard has been envisaged as road along CCT conveyor.

Additionally, Strengthening of 4 nos. of bridges / culverts on Hazaribagh PKB Highway has also been envisaged.

17. Water Supply & Sewerage

The Water demand assessed for PB West and PB East Quarry is indicated in **Table 8.2.**

Table 8.2.
The Water demand

Potable Water Demand in MGD for OCP	Industrial Water Demand in MGD for OCP	Total Water Demand in MGD
0.31	0.60	0.91

Separate sewerage system for domestic & industrial sewage has been envisaged for the Project.

17.1 Source of water

Three sources of groundwater have been identified.

i. Surface water such as existing ponds, reservoir, nalla or river
ii. Borewells
iii. Mine sump water

During construction years, there is actually no excavation taking place for extraction of coal, but water will be required for building of infrastructure, drinking & service purposes. During first year of operation sump water is not available as mine shall not intersect the aquifer due to lesser depth of the mine. For above period bore wells shall be drilled exclusively to draw water for meeting the water requirement of mine & residential colony. As the mine goes deeper & wider during later year of mining operation the sump water availability vis a vis water requirement of mine shall increase and the water requirement in these operational years shall be met by both sump water & ground water (Bore well water).From this period & beyond when the mine shall be producing 15 MTPA and water requirement expected to reach approx. 4000 m3/day, entire water requirement shall be met with the sump water. Sump water shall also be treated for drinking water purposes and bore well water shall be ceased to use.

As Permission/clearance for drawl and use of groundwater is in place revised Permission/clearance for drawl and use of groundwater shall be obtained from Central Ground Water Board. If necessary Hydrogeological study shall be carried out to assess availability of ground water.

SANJIV KUMAR SINGH
Recognised Qualified Person
Regd. No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जामटा/PAWAN DEV JAMTA
(Authorised Signatory)
Dept. : General Manager (Geo-Mining)
EDC A-5A, Sector-24, Noida-201301 (U.P.)

17.2 Industrial water supply

For both the options, ground water in the construction period and mine water has been envisaged as source of water for the project. For the initial years, ground water shall be drawn from bore wells. Afterwards, mine water shall be used. Raw water shall be stored in a bulk water reservoir from which water shall be treated and stored in a separate reservoir. From this reservoir, water will be taken to individual overhead tanks for consumption through pipe network at different points through gravity flow.

For firefighting purposes in the industrial areas like workshops, stores and quarry area, separate distribution networks have been proposed from the ground reservoir. Provision towards requirement of water for public utilities like garden, afforestation etc. has been made in this report. It has been envisaged that the distribution network for firefighting purposes shall also be utilized for these purposes.

17.3 Effluent Treatment Plant (ETP)

Effluent treatment Plant (ETP) of requisite capacity for treatment of industrial sewerage shall be installed.

17.4 Industrial sewerage

It has been considered that the industrial waste from workshop and other industrial establishments would be led through oil & grease traps. The effluent coming out of the industrial premises is proposed to be treated and led to the settling tank and to be recycled for various industrial uses of this project. The domestic sewage generated in the industrial premise has been considered to be dealt through sewerage disposal system.

Furthermore, to divert run off water for the northern side catchment area, a nallah along the northern boundary has been envisaged.

17.5 Sewerage Treatment Plant (STP)

Sewerage treatment Plant (STP) of requisite capacity for treatment of industrial sewerage shall be installed.

18. Temporary Workshop

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जागता/PAVAN DEV JAMTA
उप महाप्रबंधक (वरिष्ठ)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

In addition to the Main Workshop, a field workshop has been envisaged to cater to daily maintenance and routine checking of HEMM deployed in the mine. This workshop shall be shifting as the mine advances and preferably kept in the near proximity to the access of quarry. This workshop shall constitute bays of Daily Maintenance shop occupying requisite area. The shop area is enough to deal with 4 to 5 dumpers at a time, which will meet the requirement of total number of dumpers to be dealt in each shift.

Dumpers after being washed at the washing station shall enter these sheds and daily maintenance requirement like checking nuts & bolts, tyre pressure checking, inspection of hydraulic systems for any leakages and their rectification, electrical system general check-up, battery check-up shall be carried out. Similarly dumpers after complete washing / cleaning will move to the Daily Schedule Maintenance where they will have oil levels checked, lubrication points greased, air cleaner, dust pans cleaned, water level and / or anti-freeze checked. The air, oil and fuel filters will be changed if required as per the maintenance schedule and tyres inflated if necessary.

Besides providing Parking space for HEMM specific jobs to be performed in the Temporary Workshop are as follows:

i. Daily maintenance & washing of HEMM.
ii. Scheduled maintenance, lubrication & inspection of equipment.
iii. Fuelling of dumpers and dozers etc.
iv. Air system check
v. Hydraulic system check
vi. Electrical check
vii. Mechanical check

If on inspection, repair of any component / assembly is required, and then the machine will be sent to Dumper repair shed in the main workshop.

8.3 Infrastructure and facilities for PB North West Quarry

8.3.1 Infrastructure facilities proposed

In line with the infrastructure facilities for PB West & East Quarry the area for the infrastructure facilities will be secured by a boundary fence and a soil bund on the edge of the mine. Distance between PB-West quarry is approximately 3 Km, . from the viewpoint of ensuring better management, control and ease of access some of the facilities have been planned separate for PB-NW Quarry. The broad specifications shall be in line with the specifications adopted for PB.

SANJIV KUMAR
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जामटा/PAWAN DEV JAMTA
Dep. / General Manager (Geo-Mining)
NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

West & East Quarry. Proposed infrastructure within and precincts of the mine boundary are as follows:

1. Heavy Earth Moving Machinery (HEMM) Workshop
   a Welding Shop
   b Tool Store
   c Electrical Shop
   d Office space for workshop management
   e Shift change room
   f Washing facilities and toilets
2. Light Vehicle (LV) Workshop
3. Tyre Workshop & Tyre Storage Bay (open area)
4. Equipment Washing Facility
5. Office Building
6. Worker's Bathhouse and Canteen
7. Dispensary
8. Store
9. Engineering Section
10. Security Office
11. Fuel Depot
12. Coal Evacuation System and Coal Handling Plant
13. Electrical Power supply
14. Mobile Van
15. Approach Road
16. Other roads and culverts
17. Water Supply and Sewerage
    a Source of Water
    b Industrial water supply
    c Effluent Treatment Plant
    d Industrial sewerage
    e Sewage Treatment Plant
18. Temporary Workshop

1. Heavy Earth Moving Machinery (HEMM) Workshop (Maintenance Workshop)

In line with the Maintenance Workshop proposed for PB West & East Quarry, separate Maintenance Workshop shall be provided for NW quarry also.

2. Light Vehicle Workshops

In line with the Light Vehicle Workshop proposed for PB West & East Quarry, separate Light Vehicle Workshop shall be provided for NW quarry also.

3. **Tyre Workshop**

In line with the Tyre Workshop proposed for PB West & East Quarry, separate Tyre Workshop shall be provided for NW quarry also.

4. **Equipment Washing Facility**

In line with the Equipment Washing Facility proposed for PB West & East Quarry, separate Equipment Washing Facility shall be provided for NW quarry also.

5. **Office Building with Medical Clinic**

In line with the Office Building with Medical Clinic Facility proposed for PB West & East Quarry, separate Office Building with Medical Clinic Facility shall be provided for NW quarry also.

6. **Worker's Bathhouse and Canteen**

In line with the Office Building with Worker's Bathhouse and Canteen Facility proposed for PB West & East Quarry, separate Worker's Bathhouse and Canteen Facility shall be provided for NW quarry also.

7. **Medical unit (Dispensary)**

In line with the Dispensary proposed for PB West & East Quarry, separate Dispensary shall be provided for NW quarry also.

8. **Ware house and warehouse building (Stores)**

In line with the ware house and warehouse building proposed for PB West & East Quarry, separate ware house and warehouse building shall be provided for NW quarry also.

9. **Engineering Section-**

In line with the Engineering Section proposed for PB West & PB East Quarry, separate Engineering Section shall be provided for NW quarry also.

10. **Security Office**

In line with the Security office proposed for PB West & PB East Quarry, separate Security office shall be provided for NW quarry also.

BANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

11. Fuel Depot

In line with the Fuel Depot proposed for PB West & PB East Quarry, separate Fuel Depot depending upon the magnitude of consumption of oil & lubricants shall be provided for NW quarry also.

12. Coal Evacuation System and Coal Handling Plant

Proposed coal evacuation system and coal handling plant has been elaborated in **Chapter VII**.

13. Electrical Power Supply

The maximum power demand for mine including CHP shall be 15MVA.

Electrical Power Supply system shall broadly cover the following:

1. Power reception & distribution system.
2. Illumination of workshop and adjacent area.
3. Earthing.

In line with the Electrical Power Supply system proposed for PB West & East Quarry, separate Electrical Power Supply system depending upon the magnitude of consumption of electrical power shall be provided for NW quarry also. The identified source of construction Power, Intermediate power and permanent power proposed for PB West & PB East Quarry, shall remain same for NW quarry also.

The power for workshop, HEMM, buildings, facilities, illumination etc. shall be made available from PB-NW project sub-station. Power shall be drawn from 33KV switchgear of PB west main receiving substation through O/H lines running on the northern periphery of PB West Quarry.

14. Mobile Service Van

In line with the Mobile Service Van proposed for PB West & East Quarry, separate Mobile Service Van shall be provided for NW quarry also to cater the need of repair of heavy equipment at site itself.

15. Approach Road

The approach road for PB West Quarry will be used to access PB-NW Quarry. The proposed approach road for PB West Quarry shall be extended upto PB NW (sector-A) quarry form northern periphery of PB West Quarry.

16. Other Roads & Culverts

In line with the other roads such as haul roads, heavy duty roads, culvers on such roads and bridges proposed for PB West & East Quarry, separate other roads such as haul roads, heavy duty roads, culvers on such roads and bridges shall be provided for NW quarry also for transportation of coal/OB/topsoil/other purposes.

Road along CCT conveyor

In addition to the 14 km long, 3.75m wide black top road from block to Banadag yard proposed for PB West & PB East Quarry CCT a separate 14 km long, 3.75m wide black top road along with culverts/bridges as required from block to Banadag yard shall be provided for NW quarry also.

17. Water Supply & Sewerage

The Water demand assessed for the NW Quarry is indicated in the following Table. 8.2.

Table. 8.2

Water Demand for the NW Quarry

Potable Water Demand in MLD	Industrial Water Demand in MGD	Total Water Demand in MLD
0.55	1.5	2.05

In line with the sewerage system for industrial sewage proposed for PB West & East Quarry, separate sewerage system for industrial sewage shall be provided for NW quarry also.

a Source of water

Three sources of groundwater have been identified.

i. Surface water such as existing ponds, reservoir, nalla or river
ii. Borewells
iii. Mine sump water

During construction years, there is actually no excavation taking place for extraction of coal, but water will be required for building of infrastructure, drinking & service purposes. During first year of operation sump water is not

SANJIV KUMAR SINGH
Recognised Qualified Person
Ministry of Coal, Govt. of India

available as mine shall not intersect the aquifer due to lesser depth of the mine. For above period bore wells shall be drilled exclusively to draw water for meeting the water requirement of mine & residential colony. As the mine goes deeper & wider during later year of mining operation the sump water availability vis a vis water requirement of mine shall increase and the water requirement in these operational years shall be met by both sump water & ground water (Bore well water).From this period & beyond when the mine shall be producing 3 MTPA and water requirement expected to reach approx. 2000 m^3/day, entire water requirement shall be met with the sump water. Sump water shall also be treated for drinking water purposes and bore well water shall be ceased to use.

As Permission/clearance for drawl and use of groundwater is in place revised Permission/clearance for drawl and use of groundwater shall be obtained from Central Ground Water Board. If necessary Hydrogeological study shall be carried out to assess availability of ground water.

b Industrial water supply

In line with the industrial water supply system proposed for PB West & PB East Quarry, separate industrial water supply system for industrial sewage shall be provided for NW quarry also.

c Effluent Treatment Plant (ETP)

Effluent treatment Plant (ETP) of requisite capacity for treatment of industrial sewerage shall be installed.

d Industrial sewerage

In line with the industrial sewerage system proposed for PB West & East Quarry, separate industrial sewerage system shall be provided for NW quarry also.

e Sewerage Treatment Plant(STP)

In line with the industrial sewerage system proposed for PB West & East Quarry, Sewerage treatment Plant (STP) of requisite capacity for treatment of industrial sewerage shall be installed.

18. Temporary Workshop

In line with the Temporary Workshop proposed for PB West & East Quarry, separate industrial sewerage system shall be provided for NW quarry also.

8.4 Common Infrastructure and facilities

The area for the common infrastructure facilities will be secured by a boundary fence and a soil bund on the edge of the mine. The proposed major buildings intended for common usage within and outside the precincts of the mine boundary are as follows:

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 3401/(15)/2009-CPAM
Ministry of Coal, Govt. of India

With the signed/PAWAN DEV GUPTA
Director
EQC, A-8A, Sector-24, Noida-201301 (U.P.)

1. Residential Colony
2. Magazine
3. Core Shed
4. Coal Laboratory
5. Disaster Management Cell
6. Environmental Laboratory
7. Vocational Training Centre
8. Community Buildings
9. Communication System
10. Rehabilitation & Resettlement Colony
11. Coal Washery

1. Residential colony

a General Connectivity

The block is connected by Hazaribagh – Khelari metal Road. The nearest railway stations are Ranchi Road and Chatarpur on the Gomoh Barkakana – Dehri-on-Sone loop lines of SE Railway and are about 70- 75 kms from the block. Ranchi, which is the state capital of Jharkhand, is about 125 kms from the block.

The nearest township is Hazaribagh located at a distance of about 24 kms from Barkagaon located in the southern part of the block. It has been envisaged that the proposed colony shall come at Village Sikri near Barkagaon on the Tandwa road.

A residential colony suitable for living condition with proper ventilation, drainage shall be provided to officers, staff and workman employed in the mine as per prevailing statute. The colony shall be an integrated residential facility with PB block which shall be situated within 5 km from the block.

As this colony has been proposed to be located near Barkagaon Town on Tandwa Road thereby enabling the residents to avail the facilities of the Town as well as making it easy for them to reach the project site. The proposed project has been envisaged as highly mechanised mine needing skilled manpower. This manpower is required to be housed near the project site for smooth and continuous operation of the mine. With this background, 55% housing satisfaction has been considered for the project.

SANJIV KUMAR SINGH
Recognised Competent Person
No. 34011/(15)/2009-CPAM
Govt. of India

NTPC LIMITED
EOC, A-8A, Section-24, Noida-201301 (U.P.)

Residential colony has been considered for 1561 persons. Separate provisions have been made for colony and industrial water. It has been envisaged that there will be separate bulk reservoirs, water treatment plants and treated water reservoirs. From these treated water reservoirs, water shall be taken to the colony and for industrial purposes.

Relevant Standard Specifications shall be adopted for the construction of residential and service buildings. Requirement of residential units are given in **Table 8.3**.

Table 8.3

Requirement of residential units

Manpower for OC Project	Total No. of residential units
2863	1575 including 36 Unit Hostel

Hostel accommodation has been proposed as 20% of type -A quarters, and reduction in proposed type – A quarters has been made accordingly.

The buildings have been envisaged as RCC-cum-brick masonry structures.

b **Colony water supply**

Ground water has been envisaged as source of water for the colony. This water shall be stored in a bulk water reservoir, would be treated through treatment plant and stored in ground reservoir. From these ground reservoirs, water would be pumped to overhead reservoir from which water will be distributed to the points of consumption through gravity flow.

c **Colony sewerage**

Colony sewage has been proposed to be dealt through sewerage disposal system. Sewerage treatment Plant (STP) of requisite capacity for treatment of colony sewerage shall be installed.

d **Colony Roads**

The 3.75 m wide trunk and 10m wide gate roads of length as per requirement shall be provided for residential colony. Provisions have also been made towards culverts/bridges, tree guards and drains along these roads.

SANJIV KUMAR SINGH
Registered Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India
पवन वेद जगदीश/PAWAN DEEM JAMUA
उप महाप्रबंधक (Commercial)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

2. Magazine

A magazine having storage capacity of 12 tonnes of explosive will be provided for this coal block. This shall be constructed as per the design approved by Chief Controller of Explosive and shall at all times be kept in state of good repair (or maintained in good condition). Magazine shall be constructed at ground level only and it will be a single storey building. Safety distance shall be kept as per prescribed norms. It shall be made of heavy construction, i.e. steel, reinforced concrete, brick, stone or preformed concrete blocks. Maximum security is attainable only with steel or reinforced concrete structures. The internal dimensions of the magazine shall be such that there is ready access to all explosives. Suitable traverse or mound i.e. a solid mass of earth, sand, concrete or a brick work around the magazine shall be erected to prevent protection against effects of explosion. A distance of 15 metres surrounding the magazine shall be kept clear of dried grass or bush or flammable materials.

Magazine shall have attached thereto one or more efficient lightning conductors designed and erected in accordance with specification laid down by Bureau of Indian Standards. A cemented trough at least fifteen centimetres deep shall be provided near each entrance of magazine and shall be kept filled with clean water. Magazine shall be provided with a shelter for the security guard(s) on duty near the magazine at a suitable location not less than thirty metres away from the magazine. The magazine shall be kept securely closed or locked at all times except when goods are being placed in or taken from it or when it must be kept open for some other purpose in connection with the management of such premises.

Magazine shall be used only for keeping explosives specified in the licence and of receptacles, tools or implements for work connected with the keeping of such explosives. At the end of every month a return in Form RE-6 shall be submitted to the District Magistrate, Superintendent or Commissioner of Police in whose jurisdiction the magazine is situated in the proforma prescribed from time to time so as to reach the above authorities by 10th day of the succeeding month.

3. Core shed

The Core shed shall be a minimal facility used to store and prepare coal samples.

All facilities shall include lighting via windows and light fixtures, bollards, electrical connections and shall be design to all in the purpose the facility is designated to be used for.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जमता/PAWAN DEV JAMTA
Dep. General Manager (Mining)
NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

4. **Coal Laboratory**

The Coal Laboratory shall include two offices, toilet with extensive washing facilities and a separate testing room. The testing room shall have independent ventilation equipment. One of the offices shall be for the chief technician and the other shall to house all other technical staff.

5. **Disaster Management Cell**

A Control Room shall be set up within mining lease, which shall work round the clock. The control Room shall be provided with manpower, communication system and other equipment so as to deal with any disaster and provide necessary help affected persons.

The Control room shall also be provided with communication system to call for help from other Govt. or private organisation at the time of major disaster.

6. **Environmental Laboratory**

A fully equipped laboratory to carry out testing and analysis as per the prscribed norm for quality of water, soil, air and other mandatory environmental parameters will be provided as common facility of all the quarries. The testing room apart from state of the art equipment's shall have independent ventilation equipment.

7. **Vocational Training centre**

- Training facility for the employees shall be provided comprising of training rooms, workstations, offices for training personnel, toilets, kitchen etc. This facility shall house safety and include a mobile equipment simulator if needed. This building shall be constructed from reinforced masonry.

8. **Community Buildings**

Facilities required to have a healthy living for the employees have been envisaged and shall be provided as common facility for all the quarries.

9. **Communication System**

For effective management of different production, service units and for ensuring safety, the following communication facilities have been envisaged:

- Voice Communication
- Data Communication System

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

Chapter -VIII Mine Infrastructure & Facilities

RQP No. 34011/(15)/2009-CPAM dated 27.09.10.

Page VIII - 20

406

पवन देव जागरी/PAWAN DEV JAMTA
Dept. / General Manager / NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

- Truck Despatching System

a) EXTERNAL COMMUNICATION SYSTEM (ECS)

Twenty telephone lines have been provided for BSNL communication and access to public communication grid. These telephone sets would be located in the residences and offices of key personnel of the project, sub-station, railway siding, CHP, workshop, etc. Besides fixed line BSNL telephones, 20 nos. of BSNL cell one Mobile connection with sets may also be provided to important personnel of the project.

b) PLANT COMMUNICATION SYSTEM (PCS)

A 25-point Plant Communication System is proposed for voice communication in the CHP. Loud speaking facility for broadcasting of messages/instructions shall be available in the PCS. The Plant Communication System shall have the facility of private communication between any two handset stations, handset to central station, in addition to the loud speaking facility.

c) MOBILE COMMUNICATION SYSTEM (MCS)

Instead of simplex type mobile sets, the TETRA-based system is proposed for mobile communication in the entire operational area of the Project including all important locations. The TETRA-based system has facility to incorporate GPS - based Automatic Vehicle Location System (AVLS) and is very advantageous compared to the presently used VHF walkie-talkie sets. The system based on TETRA (Terrestrial Trunk Radio) is cost-effective, reliable, extremely spectrum efficient and has higher quality reception for voice, data and multimedia.

d) TRUCK DESPATCH SYSTEM (TDS)

To achieve optimum utilisation of the HEMM in O/C mines, there is a need to provide an efficient means of data acquisition & control system. With the advancement in the TDS, the use of GPS for determining the points of different moving vehicles & automatic data transmission system for efficient control of vehicles has been found quite efficient & viable in Opencast mines.

10. REHABILITATION AND RESETTLEMENT COLONY

The resettlement colony shall be considered where the PAPs are those HSOs who have not opted for self-resettlement. The land for Rehabilitation Colony

SANJIV KUMAR SINGH
Recognised Qualified Person
Ref. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.05.10.

PAWAN DEV JAMTA
ALTEC LIMITED

shall be made available by NTPC free of any encumbrances preferably at one place Government land for RC is preferable. The cost in that case will also be borne by NTPC. Location of the RC could be decided in consultation of the project and could be slightly away but in the vicinity of the project. Basic infrastructure facilities for CD works will be provided in RCs.

The infrastructure facilities and basic minimum amenities shall be augmented in the RCs, the project affected villages and in the vicinity of the project to ensure that the displaced population (HSOs) in the resettlement colony or the village may secure for themselves a reasonable standard of community life.

The facilities/ amenities will vary depending upon local requirements. The focus areas would be Connectivity, Drinking Water, Sanitation apart from Education and Health related infrastructure. These may include the following:

a. Internal and the approach roads with proper drainage, with preference for concrete roads
b. One or more sources of safe drinking water like hand pump, borewells with water outlet platforms etc., as per need and requirement
c. Tree plantation including fruit trees
d. Community halls/ Panchayat Ghar
e. Primary educational facilities
f. Primary health facilities
g. Street lighting in the Resettlement Colonies
h. Public cremation ground/ burial ground
i. Common grazing land/ small distributaries for irrigation
j. Drainage
k. Sanitation
l. Drinking water for cattle
m. Community Ponds
n. Children playground

11. COAL WASHERY

Coal washability study has not yet been carried out for Pakri Barwadih Coal. Coal quality parameters obtained from the proximate analysis of coal revealed that ash percentage in all probability is likely to remain 34% or below which does not call for commissioning of coal washery. However space provision is kept for providing a Coal Washery at mine end in future, if required.

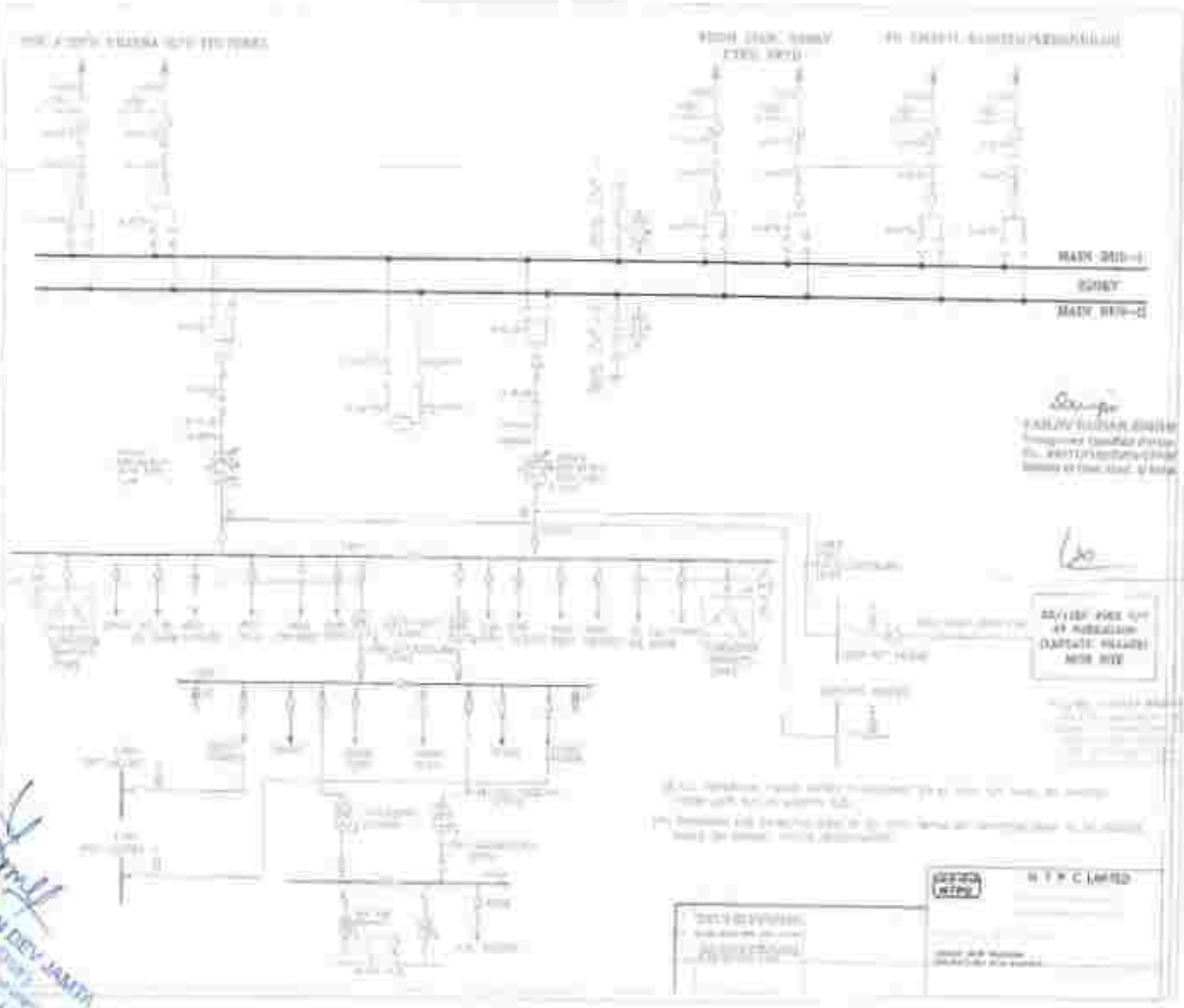
SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/[illegible]
Mining Plan

Chapter -VIII Mine Infrastructure & Facilities

RQP No. 34011/(15)/2009-CPAM dated 27.09.10.

Page VIII - 22

488


MAIN BUS-I
MAIN BUS-II
H.T.P.C.LIMITED

CHAPTER IX

LAND REQUIREMENT


पवन देव जमता/PAWAN DEV JAMTA
Dep. General Manager
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

CHAPTER IX

LAND REQUIREMENT

9.1 Village wise land

4695 Ha of land is proposed for the Open cast project, which would be utilized for different purposes to carry out extraction of coal. There are 27 villages identified in the core zone of Pakri Barwadih coal block. The list of the villages along with area (ha) in the core zone are given in the **Table-9.1.**

Table 9.1
Village wise Land in the Core Zone

Sl. No.	Name of Village	Total Area within core zone (ha)
1	Deoria Kalan	87.00
2	Deoria Khurd	56.00
3	Urub	321.00
4	Itij	49.00
5	Chirudih	234.00
6	Nagri	218.00
7	Dankalan	282.00
8	Chepa-Khurd	100.00
9	Jugra	170.00
10	Arahara	296.00
11	Pakri-Barwadih	625.00
12	Barkagaon	166.00
13	Langatu	389.00
14	Sonbarsa	197.00
15	Sinduari	109.00
16	Churchu	145.00
17	Keri	197.00
18	Lakura	214.54
19	Chepa- Kalan	316.00
20	Baratu	212.09
21	Basaria	46.13
22	Beltu	16.57
23	Jabra	12.85
24	Kandaber	65.18
25	Nawadih	43.42
26	Sirma	45.37
27	Urub	41.38
28	Other	38.48
	Total	**4695.00**

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011(15)/2009-CPAM
Ministry of Envt. Govt. of India

DEV JAMTA

9.2 Category wise existing land use pattern

Out of total project area of 4695 ha, 38.06% is designated as forest land. Tenancy land and Government non forest land for which breakup is not presently available constitutes 2713 ha which constitutes 61.93%. Category wise pre mining (existing) land use pattern is given in **Table 9.2**.

Table 9.2

Pre Mining Land Use Pattern

Sl. No.	Type		PB West & East (including u/g)	PB NW	Total of PB
1	Tenancy	Agricultural	2731.48	176.52	2908.00
		Habitation			
		Grazing			
		Barren			
2	Govt Non Forest	Agricultural			
		Habitation			
		Grazing			
		Barren			
3	Forest	Forest	1478.52	308.48	1787.00
	Total		**4210.00**	**485.00**	**4695.00**

9.3 Land Use during mining and Post Mining:

Land Use During Mining

Actual excavation shall take place over 1982 ha which is 42% of total area of the project. 29% of total project area shall be unutilized due to various reasons such as presence of hills and rationalization etc. Top soil dump is planned in flatter land over an area of 47 ha.

Post Mining (End of Life) Land Use Pattern

Mining operations has an impact on the land use pattern. In the proposed project, the impact on the land is due to:

- Overburden removal and extraction of coal
- Dumping of overburden as well as Coal
- Construction of infrastructure and facilities such as, workshop, office, road etc. coal handling plant within and outside project area.

SANJIV KUMAR SINGH
Registered Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

Post mining the land use pattern shall be very different from pre mining land use pattern. Due to Mining, dumping, diversion of nallas/rivers and wter filled reservoirs, aesthetic appearance of landform shall be changed.

Even after maximization of in pit dumping void shall remain over 668 ha and backfilled area consisting of hillocks shall be over 1294 ha of area. Various buildings, coal handling plants, sub stations & other statutory facilities shall be occupying around 291 ha land.

9.4 Post Closure Land Use Pattern

Although progressive mine closure activities shall be carried out during various stages of mining operations. Final mine closure activities shall commence from 52nd year of mining operations and shall continue upto 55th year. Mine shall be closed as per Mine Closure Plan. Overall land use Pattern is given in **Table 9.3**.

Table 9.3
Overall land use Pattern

Area in Ha

Pre Mining Land Use "Ha"			Land Use "Ha"									
						Post Closure						
Type		Ha	Type	During Mining	End of Life	Agricultural	Plantation	Water Body	Public Use	Forest Land (Returned)	Undisturbed	Total
Tenancy	Agricultural	2638.00	Excavation Area	[illegible]								
	Township		Backfilled Area	[illegible]	[illegible]	[illegible]	[illegible]					[illegible]
	Grazing		Excavated Void	[illegible]	[illegible]			[illegible]				[illegible]
	Water Bodies		Top Soil Dump	[illegible]								
	Road		External Dump	[illegible]	[illegible]		[illegible]					[illegible]
	Community		Safety Zone	[illegible]	[illegible]		[illegible]					[illegible]
	Unhabited		Haul Road between quarries									
	Barren		Road Diversion	[illegible]	[illegible]				[illegible]			[illegible]
Govt. Non Forest	Agricultural	270.00	Diversion/Below River/Nalla	[illegible]	[illegible]				[illegible]			[illegible]
	Township		Settling Pond	[illegible]	[illegible]			[illegible]				[illegible]
	Grazing		Road & Infrastructure Area	[illegible]	[illegible]		[illegible]		[illegible]			[illegible]
	Barren		Rationalization Area									
Forest		1787.00	Garland Drains	[illegible]								

SANJIV KUMAR SINGH
Registered Qualified Person
Ref. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

Pawan DEV JAMTA
पवन देव जामटा
[illegible] UNITED
[illegible] (U.P.)

			Embankment									
			Green Belt									
			Water Reservoir Near PC									
			UG Entry									
			Undisturbed/Mining Right for UG									
			Resettlement									
Free hold			Agricultural Land									
Total		4095.00										

* Within Excavation area

9.5 Land Restoration

Efforts will be made to restore the land to the original land use to the extent possible. Post closure land use will serve following purposes:

1. Voids shall be made safer by erection of fencing and development of Ghats. This shall also be a source of water for nearby locality and a picnic spots for use of general public.

2. Water from the voids shall be used for irrigation, watering the forest at early stage which is expected to attract avifauna.

3. As per present plan the depth of the void is 280 m (approx.). As per the direction of MoEF, if necessary, post mining, depth of the void shall be reduced to the recommended level.

4. Industrial, residential and other buildings used for the purpose of project will be handed over to the state government.

5. The civil or mechanical installations prejudicial to the safety of the general public will be dismantled or suitably disposed or transferred to other locations as deemed fit by NTPC.

6. Roads will be thrown open for public use under the observation of state/local government.

7. Agricultural land shall be developed over 713 ha land and handed over to the state/local government at their disposal.

8. Substantially thick plantations will be developed in the identified areas to improve aesthetic look of the surroundings.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011(15)/2009-CPAM
Ministry of Coal, Govt. of India

9. Overburden dump both external & internal will be planted and afforested with the local varieties of trees in consultation with Forest Department, Government. Backfill Percentage = 65.28% Plantation Area = 1772 ha

Year wise land restoration Plan is given in **Table -9.4**.

Table -9.4
Year wise land restoration Plan

Area in Ha

Stage	Cumulative area(Ha)							Cumulative Plantation area(Ha)					
	Excavation	Backfilling	Void	Topsoil dump	Ext. dump	Others	Total	Backfill	Dump	Green area	Infrastructure	Agriculture/ Grazing land	Total
Y1	57.18	0.00	57.18	26.25	84.30	4527.27	4695.00	0.00	0.00				0.00
Y3	142.98	0.00	142.98	36.00	193.23	4322.79	4695.00	0.00	19.00				19.00
Y5	262.69	0.00	292.69	47.12	261.67	4093.52	4695.00	0.00	83.00	10.00			83.00
Y10	750.14	289.76	460.38	25.18	316.61	3603.07	4695.00	0.00	260.00	10.00			260.00
Y20	1223.34	512.34	511.00	25.18	911.07	2733.41	4695.00	67.00	456.00	15.00			523.00
Y30	1541.81	608.39	933.42	0.00	913.54	2239.05	4695.00	311.00	669.00	20.00			980.00
Y40	1935.00	1192.00	743.00	0.00	885.00	1875.00	4695.00	524.00	885.00	38.00	124.00	665.00	2074.00
Y52	1982.00	1294.00	688.00	0.00	885.00	1828.00	4695.00	581.00	885.00	48.00	258.00	49.00	2465.00

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

for M/s JEYPORE SIMLIPAHAN DEV SAMITA

पवन देव जमाता/PAWAN DEV JAMTA
उप निदेशक (कार्यालय)
Dep. Director Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

CHAPTER X

ENVIRONMENT MANAGEMENT PLAN

CHAPTER X

ENVIRONMENTAL MANAGEMENT PLAN

10.1 General

Pakri Barwadih Mine is designed to produce 18 MTPA of coal for the estimated life of 52 years which may have potential to release harmful substances into the soil, air, and water. The environmental impact of Pakri Barwadih mining includes erosion, formation of sinkholes, loss of biodiversity, and contamination of soil, groundwater, surface water by chemicals from mining processes. Besides creating environmental damage, the contamination resulting from leakage of chemicals may also affect the health of the local population. NTPC is required to follow environmental conditions mandated by EC and rehabilitation and resettlement standards as per R&R plan.

Erosion of exposed hillsides, mine dumps, tailings dams and resultant siltation of drainages, creeks and rivers can significantly impact the surrounding areas. It may also cause destruction and disturbance of ecosystems and habitats, and in areas of farming it may disturb or destroy productive grazing and croplands. It may also may produce noise pollution, dust pollution and visual pollution.

To maintain ecological balance and to check / mitigate harmful effects due to mining and allied activities at Pakri-Barwadih Mine, environmental control measures have been integrated into the process of mine planning. Many of the areas of environmental management planning require multidisciplinary approach.

The changes warranted as per site specific conditions are to be accounted for, during actual implementation. Further, in the light of experience likely to be gained during the initial years of operation, proposed schemes shall be periodically modified/ updated. Physical, chemical, biological and socio-economic control measures shall be taken in various areas to implement most effective environment control throughout the life of mining operation.

10.2 Environmental Clearance

Ministry of Environment, Forest and Climate Change, vide letter no. No.J-11015/692/2007-IA.II(M), dated 19th May 2009 accorded EC for Pakri Barwadih Coal Mine Project for a production capacity of 15 MTPA in a total lease area of

SANJIV KUMAR SINGH
Competent Qualified Person
Reg. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

NTPC LIMITED

3319.42 ha, which consists of Phase-I of 39 years of operation and comprises of opencast operations only. Copy of EC is placed at **Annexure-XII**.

The present mining plan is envisaged for rated production of 18 MTPA for the life of 52 years and includes PB NW quarry additional area also. Thus present mining plan is at a variance with the EC.

It is recommended to seek EC for PB NW Quarry for rated production of 3 MTPA.

Further Baseline Environmental Data have not yet generated for PB NW area, the available Baseline Environmental Data as per study of PB West and PB East Quarry, shall be used to assess the environmental impacts for PB NW Quarry and accordingly checks/mitigative environmental measures are suggested.

10.3 Baseline status of Environment

Different element of environment namely land, water, air and ambient noise status of the area was studied in winter, 2005-06 (supplemented with data from June, 2006). All attempts have been made to gather the available data on the present environment in the study area which is the area within 10 km radius of the proposed mine site.

10.3.1 Existing Land Use pattern

Existing (pre-mining) land use in lease area is given in Chapter-9 "Land Requirement" is reproduced below.

		Forest	Non-Forest		Total
1.0	**Within the block**		Govt.	Private	
1.1	***Opencast Area***		-		
1.1.1	Excavation & Dump Area				**2886.0**
1.1.2	Infrastructure & undisturbed				**635.0**
	Sub-total(1.1)	1252.44	275.24	1973.31	**3501.0**
1.2	Underground	89.88	81.54	399.38	**570.8**
1.3	Unutilized Area	357.08			**357.08**
	Sub-total(1.0)	1699.4	356.78	2372.69	**4428.9**
2.0	Outside Block (External Dump, Coal Evacuation	87.6	31.02	147.46	**266.08**

SANJAY KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

		Forest	Non-Forest		Total
1.0	**Within the block**		Govt.	Private	
	Corridor, Railway Siding, Mine Infra)				
	Grand-total	**1787**	**388**	**2520**	**4695**

10.3.2 Soil Quality

To assess the quality of soil in and around the mining area, soil samples were collected from eight locations during June, 2005 (before the onset of monsoons) as well as during November, 2005 for physicochemical analysis. **Table 10.1** lists the soil sampling locations.

Table 10.1

List of Soil Sampling Locations

Sample No.	Location	Type of Land
S1	Village Pakri-Barwadih	Forest Land
S2	Village Chiradhi	Forest Land
S3	Village Chepakhurd	Agricultural Land
S4	Horam	Agricultural Land
S5	Barkagaon	Fallow Land
S6	Kanrtari	Sediment From Haharo river
S7	Mahugain Khurd	Fallow Land
S8	Kandaber	Agricultural land

The results of analysis are given in Tables 10.1, 10.2, 10.3, 10.4, 10.5, 10.6, 10.7, 10.8, 10.9, 10.10, and 10.11.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

Chapter - X Environmental Management Plan

RQP No. 34011/(15)/2009-CPAM dated 27.09.10

Page X - 3

102

Table 10.2

Physical Properties of Soil in June, 2005

Sample No.	Texture Analysis*			Type of Soil
S1	Sand: 6	Silt: 18	Clay: 76	Clay Loam
S2	Sand:8.5	Silt:12.8	Clay: 78.7	Clay Loam
S3	Sand: 12.5	Silt: 62.5	Clay:25	Silt Loam
S4	Sand: 9.4	Silt: 37.5	Clay:53.1	Clay Loam
S5	Sand: 3.9	Silt: 21.6	Clay: 74.5	Clay Loam
S6	Sand: 6.1	Silt: 20.4	Clay: 73.5	Clay Loam
S7	Sand: 13.6	Silt: 17.6	Clay:68.6	Clay Loam
S8	Sand: 6.2	Silt: 8.8	Clay: 75	Clay Loam
				* All values in %

Table 10.3

Physical Properties of Soil in November, 2005

Sample No.	Texture Analysis*			Type of Soil
S1	Sand: 7.9	Silt: 13.1	Clay: 79	Clay Loam
S2	Sand:8.5	Silt: 14	Clay: 74	Clay Loam
S3	Sand: 15	Silt: 15	Clay: 70	Silt Loam
S4	Sand: 16.7	Silt: 14.6	Clay: 68.7	Silty Clay Loam
S5	Sand: 14	Silt: 8	Clay: 78	Loamy Sand
S6	Sand: 16.3	Silt: 6.1	Clay: 77.6	Silt Loam
S7	Sand: 8.9	Silt: 31.3	Clay: 60	Sand
S8	Sand: 14.3	Silt: 9.5	Clay: 76.2	Sandy Loam
				* All values in %

Table 10.4

Chemical Properties of Soil during June, 2005

Parameters	S1	S2	S3	S4	S5	S6	S7	S8
pH (1:5) at 25° C	6.85	6.86	6.84	6.52	6.85	7.8	6.3	7.01
Electrical Conductivity (1:5)in (µs/cm) at 25 °C	89.06	79.95	70.71	97.78	342	132.7	182	158

Table 10.5

Chemical Properties of Soil during November, 2005

Parameters	S1	S2	S3	S4	S5	S6	S7	S8
pH (1:5) at 25 ° C	6.94	6.74	6.9	6.31	7.09	7.56	6.46	7.09
Electrical Conductivity (1:5) in (µs/cm) at 25 °C	138	141	149	93	103	147	167	119

Soil pH plays an important role in the availability of nutrients. Soil microbial activity is also dependent on pH. In the study area the soil pH is slightly acidic to slightly alkaline (6.30<pH<7.80 in summer; 6.31<pH<7.56 in winter).

Electrical conductivity (EC) is a measure of the soluble salts and ionic activity in the soil. In the collected soil samples the conductivity ranged from 70.7 to 158.01 µs/cm in summer and from 93 to 167 µs/cm in winter.

Table 10.6

Available NPK Contents in Soil in June, 2005

Parameters	S1	S2	S3	S4	S5	S6	S7	S8
Organic Carbon in % & Rating	0.21	0.33	0.33	0.76	0.7	1.11	1.08	0.17
	Low	Low	Low	High	Medium	High	High	Low
	245.86	215.13	282.74	384.16	357.6	276.6	461.78	208.98

SANJAY KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Envt. Govt. of India

PAWAN KV GUPTA
Director (Technical)
M/s MECON LIMITED

Parameters	S1	S2	S3	S4	S5	S6	S7	S8
Available Nitrogen in g/ha & rating	Low	Low	Medium	Medium	Medium	Low	Medium	Low
Available Potassium in kg/ha & Rating	370.72 High	164.64 Medium	179.2 Medium	163.52 Medium	265.06 Medium	306.88 High	222.62 Medium	448 High
Available Phosphorous in kg/ha & rating	1.43 Low	2.09 Low	1.98 Low	1.65 Low	41.34 High	1.87 Low	41.88 High	1.1 Low

Rating based on:			
Available Nitrogen	<280 - Low	280- 560 -Medium	>560 - High
Organic carbon	<0.50- Low	0.5-0.75 - Medium	> 0.75 - High
Available Phosphorus	<10 - Low	10 – 25 - Medium	>25 - High
Available Potassium	<120 - Low	120 - 280 -Medium	>280 – High

Table 10.7

Available NPK Contents in Soil in November, 2005

Parameters	S1	S2	S3	S4	S5	S6	S7	S8
Organic Carbon in % & Rating	0.35 Low	0.25 Low	0.46 Low	0.63 Medium	0.75 Medium	0.95 High	0.24 Low	0.35 Low
Available Nitrogen in g/ha & rating	175.16 Low	212.06 Low	371.86 Medium	304.25 Medium	248.94 Low	227.42 Low	221.28 Low	239.72 Low
Available Potassium in kg/ha & Rating	285.60 High	239.68 Low	691.60 High	143.81 Low	360.08 High	234.08 Medium	274.40 Medium	228.48 Medium
Available Phosphorous in kg/ha & rating	6.74 Low	6.06 Low	4.97 Low	3.96 Low	10.11 Medium	33.85 High	7.59 Low	1.09 Low

SANJU KUMAR SINGH
Recognised Qualified Person
MoEF & CC, Govt. of India
PANNA DEV JAISTA
Manager (E)
RITPC LIMITED
Noida-201301 (U.P.)

Rating based on:			
Available Nitrogen	<280 - Low	280- 560 -Medium	>560 - High
Organic carbon	<0.50- Low	0.5-0.75 - Medium	> 0.75 - High
Available Phosphorus	<10 - Low	10 – 25 - Medium	>25 - High
Available Potassium	<120 - Low	120 - 280 -Medium	>280 – High

Phosphorus and Nitrogen are limiting nutrients, especially phosphorus. During June, 2005, in the tested soil samples, availability of phosphorus is low except in S5 and S7, where it is high; available Nitrogen is low to medium; organic carbon content is low to high while potassium content is low to high. During November, 2005 except in S5 and S6 availability of phosphorus is low; available Nitrogen is low to medium; organic carbon content is low to high while potassium content is low to high.

Table 10.8

Exchangeable Soil Cations in June, 2005

Parameters	S1	S2	S3	S4	S5	S6	S7	S8
Calcium (meq/100gm)	20.91	22.81	64.64	18.24	18.24	45.62	9.6	26.61
	(74.7)	(74)	(68.4)	(61.7)	(70.5)	(67.5)	(67.5)	(67.5)
Magnesium (meq/100gm)	11.48	11.48	47.86	51.69	6.77	36.37	9.67	19.15
	(23.5)	(21.7)	(28.2)	(33.3)	(26.6)	(29)	(29)	(29)
Sodium (meq/100gm)	0.23	0.34	0.8	0.34	2.04	1.38	1.7	0.8
	(1.3)	(2.2)	(2.5)	(2.5)	(1.3)	(1.6)	(1.6)	(1.6)
Potassium (meq/100gm)	21.16	9.4	9.59	9.34	7.57	17.52	6.33	25.58
	(0.5)	(2.1)	(0.9)	(2.5)	(1.6)	(1.9)	(1.9)	(1.9)
Figures in ( ) gives the % contribution of the respective ions to base saturation								

SANJIV KUMAR SINGH
Managing Qualified Person
No. 34011/15/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जाम्बे/PAWAN DEV JAMTA
Page X-7

Table 10.9

Exchangeable Soil Cations in November, 2005.

Parameters	S1	S2	S3	S4	S5	S6	S7	S8
Calcium (meq/100gm)	70.70	82.80	60.60	68.68	70.76	76.75	58.58	46.45
	(56.1)	(56.8)	(56.3)	(49.8)	(52.1)	(52.3)	(55.2)	(55.7)
Magnesium (meq/100gm)	50.30	53.29	37.22	62.37	58.34	61.42	42.25	33.20
	(39.9)	(36.5)	(34.6)	(45.2)	(43.0)	(41.9)	(39.8)	(40.7)
Sodium (meq/100gm)	0.81	0.97	0.91	0.81	0.91	0.86	0.70	0.70
	(0.64)	(0.67)	(0.85)	(0.59)	(0.67)	(0.59)	(0.66)	(0.86)
Potassium (meq/100gm)	4.25	8.79	8.96	6.11	5.63	7.62	4.64	2.21
	(3.4)	(6.0)	(8.3)	(4.4)	(4.15)	(5.2)	(4.37)	(2.7)
Figures in ( ) gives the % contribution of the respective ions to base saturation								

The above results show that the tested soil samples have high proportions of calcium and magnesium whereas proportions of exchangeable sodium and potassium were low.

Table 10.10

Available Micronutrients in Soil in June, 2005

Parameters	S1	S2	S3	S4	S5	S6	S7	S8
Copper	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Zinc	0.041	0.060	0.042	0.032	<0.013	0.030	0.022	0.031
Iron	26	47.5	29.25	35.10	0.57	31.29	2.39	37.14
								(Values in mg/kg)

Table 10.11

Available Micronutrients in Soil in November, 2005

Paramete	S1	S2	S3	S4	S5	S6	S7	S8
Copper	1.8	2.22	3.14	1.06	2.24	2.08	1.14	1.24
Zinc	6.68	24.73	11.42	8.44	8.38	9.26	5.94	7.46
Iron	20.70	31.50	32.99	24.30	23.60	22.90	15.70	15
								(Values in mg/kg)

SANJIV KUMAR SINGH
Competent Authority
Ministry of Coal, Govt. of India

(DIN Sh. SANJIV RAMAN DEV JAMTA)
Director
For and on behalf of
M/s ADITYA BIRLA MINERALS LIMITED
B-35, A-6A, Sector-24, Noida-201301 (U.P.)

Soil micro-nutrients also play an important role in plant growth and can act as limiting nutrients. Soil micro-nutrient analysis can be employed as a diagnostic tool for predicting the possibility of deficiency of a nutrient and the profitability of its application. For this, it is essential to fix the critical limits. The critical limit of micro-nutrient in a soil is that content of extractable nutrient at or below which plantation practiced on it will produce a positive response to its application. The critical limits of copper, zinc and iron are 0.20-0.66 mg/kg, 0.50-0.65 mg/kg and 4.5-6.0 mg/kg respectively.

From the above Tables it can be seen that during June, 2005 in all the soil samples, micro-nutrient levels, other than that of iron, are very low; iron levels are very high. During November, 2005, availability of all the tested micro-nutrients was high in all the samples. Excessive micro-nutrients are detrimental to plant growth as excess of one more micro-nutrients adversely affects the uptake of other micro-nutrients. Excess of copper affects uptake of Molybdenum, another micro-nutrient. Excess of Zinc, Manganese and Copper affect Iron uptake. Excess Iron, Copper and Zinc affect Manganese uptake. Thus due to the antagonistic effect of some micro-nutrients, uptake of other nutrients is adversely affected which hampers plant growth i.e. the fertility of soils in the study area are low.

10.3.3 Quality of Air, Ambient Noise and Water

The existing quality of Air and Water are discussed in 11.4 and 11.3 respectively.

a. Ambient Noise Levels

In order to have an idea about the existing noise level of the study area, noise monitoring has been carried out at five locations listed in **Table 10.12**.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

Chapter - X Environmental Management Plan

RQP No. 34011/(15)/2009-CPAM dated 27.09.10

Page X - 9

508

पवन देव जमता/PAWAN DEV JAMTA
Deputy General Manager (Mining)
NTPC LIMITED
EOC, A-8A, Sector 24, Noida-201301 (U.P.)

Table 10.12

Ambient Noise Monitoring Stations

Stn. No.	Location	Core Zone/ Buffer Zone	Distance & Direction (from Centre of proposed project)
N1	Pakri-Barwadih	Core	-
N2	Chepa Khurd	Core	-
N3	Pundaul	Buffer	.0 Km south-east of Core one
N4	Road, just outside lease area	Core	-
N5	Sirma	Core	-
N6	Kandaber	Buffer	.1 Km west of Core Zone
N7	Garrikalan	Buffer	.1 Km west of Core Zone
N8	Horam	Buffer	.0 Km south-east of Core one
N9	Sikri	Buffer	.0 Km south-west of Core one
N10	Kadmadih	Buffer	.1 Km south of Core zone

b. **Noise Monitoring Frequency**

Monitoring was carried out once during June, 2005. At each ambient noise monitoring station, Leq. Noise level has been recorded at hourly intervals for 24 hours continuously by operating the noise-recording instrument for fifteen (15) minutes during each hour. At work-zone noise monitoring stations, Leq. noise was recorded at hourly intervals for 8 hours continuously by operating the noise-recording instrument for fifteen (15) minutes during each hour.

c. **Results and Discussions**

The summarised results of ambient noise monitoring in June, 2005 are given in **Tables 10.13**. The results have been compared with the standard specified in Noise 2000 Standards in Environmental Protection Rules given in **Table 10.14**.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Project Manager (Co-ordinator)
NTPC LIMITED
Noida-201301 (U.P.)

Table 10.13

Summarised Results of Noise Monitoring During June 2005

Stn. No.	Location	Results					
		Day (0600-2200 hr.)			Night (2200-0600 hr.)		
		Max.	Min	Mean.*	Max.	Min	Mean.*
N1	Pakri-Barwadih	66	36	58.3	48	29	40.2
N2	Chepa Khurd	62	30	55.3	52	22	43.9
N3	Pundaul	67	35	59.8	45	26	37.3
N4	Road, just outside	69	40	62.9	44	28	39.1
N5	Sirma	52	30	49.7	28	24	27.9
N6	Kandaber	58	32	52.8	42	24	35.0
N7	Gamkalan	74	48	66.8	66	30	57.1
N8	Horam	66	41	60.8	46	30	40.8
N9	Sikri	54	37	50.8	38	23	31.4
N10	Kadmadih	58	34	54.2	44	25	36.0

* Logarithmic Averages
All Values in dB (A)

Table 10.14

Ambient Air Quality norms in respect of Noise

(As Per Schedule III, Rule 3 of Environment Protection Rules)

Type of Area	Day (0600 - 2200 hrs.)	Night (2200 – 0600 hrs.)
Industrial Area	75	70
Commercial Area	65	55
Residential Area	55	45
Silence Zone	50	40

All Values in dB (A)

All the noise monitoring stations are "Residential Areas". (There are no areas of the other types in the study area). During day time, the noise levels were high in some locations due to movement of traffic and village activities. At

SANJIV KUMAR SINGH
Approved Qualified Person
for 34011/(13)/2009-CPAM
Ministry of Coal, Govt. of India
PAWAN DEV JAMTA
Deputy General Manager (Corporate)
NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

night, the noise levels were mostly within the norms, except at one location (N7 – Garrikalan) because of operation of a DG Set in the village.

10.4 Environmental Impact Assessment

An essential step in Environmental Impact Assessment (EIA) is to identify all potential environmental impacts (both beneficial and adverse). The identified impacts due to mining and associated activities have been studied in relation to the following areas:

10.4.1 Impact on land use

Existing (pre-mining) land use in lease area is given in "Land Requirement" Chapter-IX. Mining, dumping, road, built area etc. will change the existing land use pattern by degrading/utilizing forest and non-forest land. Plantation/utilization break-ups have been given in "Land Requirement" **Chapter-IX**.

10.4.2 Impact on water quality

Washing of coal has not been envisaged at present.

10.4.3 Impact on noise levels

The noise level in and around the mine may increase in future due to mechanized mining operation, blasting and operation of crusher. However, the noise levels in and around the area is expected to be below 75 dB (A).

10.4.4 Impact on Air Environment

Mining operations such as excavation, loading and unloading, movement of dumpers on haul roads, back filling, crushing screening and also drilling and blasting are expected to generate airborne fugitive dusts. Emission of pollutants like nitrous fumes (Nox), Sulphur oxides (SOx), carbon monoxide (CO) etc. from diesel operated equipment will also have little contribution.

The ambient air quality of the area shows that the pollutants like SPM, SOx, Nox CO and dust fall are well within the specified tolerance limits. As such the air environment of the mine is not likely to be adversely affected during the five years period.

SANJIV KUMAR SINGH
Recognised Qualified Person
Reg. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Director
NITCO LIMITED
EDC, A-8A, Sector-24, Noida

10.4.5 Vibration levels (due to blasting)

Blasting pattern has been designed to minimise the vibration levels. However, vibration levels will be studied once the blasting is done in the lease area.

10.4.6 Impact on Water regime

The mining operation starting from western side of the coal block will affect Dumuhani Nallah and its tributary streams and streamlets joining it from northern part of the block. The Nallah flows in more or less NNE to SSW direction across the western part of the lease and finally joins the Haro Nadi outside the southern part of lease. Ground water level of the area varies from 25 to 35 m from the surface. The opencast mining below ground water level shall involve release of water in the order of 500 m^3/hr through pumping which will be discharged to the proposed garland nallah along north eastern boundary of lease. The drawl of this quantity of water is expected to be recharged through rains during monsoon which is 200-800 mm in monsoon and 100 – 200 mm in post & pre monsoon season. In addition water requirement of 526 m^3 /day for the domestic purposes shall also be met through bore wells. Industrial water requirement for drilling, spraying over road, washing of machinery etc. shall be met through creating a small reservoir on Dumuhani nallah at eastern boundary of the lease and drawl through pumping.

The active mining activity for the five years period does not encounter any stream/ nallah. As such accumulation of surface water is not envisaged in any quarry even during rainy season. Suitable storm water drains will be made above the top bench to channelise the surface run-off during rainy season.

10.4.7 Impact on Socio-economics

Displacement of human settlement will be involved due to the proposed mining activities. Adequate settlement and rehabilitation schemes will be implemented as per the guidelines of State/Central Govt. Mining activities will have a positive effect on the socio-economic condition of the people nearby, as it is a steady source of income for them. With the continuation of mining operation

SANJIV KUMAR SINGH
Recognised Qualified Person
RQP No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जमता/PAWAN DEV JAMTA
Deputy General Manager (Commercial)
EDC A-3A, Sector-24, Noida

employment opportunities, communication, medical facilities, schooling etc will be improved further.

10.4.8 Historical Monuments

There is no historical monument in and around the mining lease boundary other than a Megalith Structure at PB East Quarry. As directed by MoEF 500m radius is left for its preservation. No coal shall be mined beneath the influence zone.

10.5 Environment Management

10.5.1. Year-wise program for reclamation of affected land

As per the year wise excavation programme envisaged in the mining plan, the mine benches will remain active till the end of first five years of operation. Accordingly, the reclamation of mined out area will not be possible during first five years. However, the back filling of mined out area will start after 6th year of mine operation in western pit. Once the internal dumping in the mined out area starts, limited quantity will be dumped at the external dump. Mining benches will be filled upto 450 mRL in the western pit of the Block and subsequently raised to 540 mRL. Yearly coverage of reclamation areas are given below in **Table 10.15**.

Table 10.15

Yearly Details of reclamation of land

Stage	Reclamation Area (Ha)
1st year Stage	-
3rd year Stage	19
5th year Stage	64
10th year Stage	177
20th year Stage	389

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011(15)/2009-CPAM
Ministry of Coal, Govt. of India

PRAMOD DEV JAMTA
Deputy General Manager (Geology)
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Stage	Reclamation Area (Ha)
30th year Stage	567
40th year Stage	617
Final Stage	334

10.5.2. Afforestation Programme

During first four years period of mine planning a total of 487 Ha (in non-forest) of land will be broken in western part of the Block both for Mining and Dumping. To compensate for the above, plantation over 100 ha area will be undertaken during first 5 Years as per the following plantation schedule.

Table 10.16

Year	Area to be covered (ha)	Number of trees to be planted (@ 1250 saplings/ha), 75 % survival rate
First year	15	18750 (all around the lease boundary, along the access road, facilities)
Second year	20	25000 (Along the access road, outside the dump area and compensate the plant died)
Third year	20	25000 (On the external dump/mine periphery & along road)
Fourth Year	20	25000 (On the external dump/mine periphery & along road)
Fifth Year	25	31250 (On the external dump/mine periphery & along road)

10.5.3. Stabilization, vegetation and management of dumps

The quantities of OB, Parting (Excluding of Topsoil) to be dumped during first five years for West & East Quarry have been estimated at 99.47 Mm^3.The external waste dump will be stabilized by terracing the slopes. Plantation will be

carried out over the stabilized external dump to increase the stability of dump & also to make the surroundings more eco-friendly. Only local species will be planted under the guidance of state forest department.

A 1.5 m high barrier wall will be erected along the outer edge of external dump at a distance of 15 m form dump toe to arrest the rolling stones down the dump edge. A drainage channel will be dug inside the wall to channelize the rain water falling over the dump area. The channel will be cleaned periodically particularly before the onset of monsoon. Dozer has been envisaged for terracing of dump slopes as well as maintaining the drainage. The details of year wise stabilization and vegetation of dumps is given in **Table 10.17**.

Table 10.17

Yearly stabilization and vegetation of dump

Year	Dump Stabilization & Vegetation (Ha)
First Year Stage	-
3rd year Stage	19
5th year Stage	64
10th year Stage	177
20th year Stage	389
30th year Stage	557
40th year Stage	617
Final Stage	334

10.5.4. Measures to control erosion/sedimentation of water courses

Continuous monitoring will be done to remove overburden material and loose sediments from the working mine benches and excavation zone to avoid rolling of the same into the water course and thereby prevent the erosion and sedimentation. Retention wall will be constructed around the dump to prevent rolling down of loose sediments. Settling pits will be constructed at appropriate

Chapter - X Environmental Management Plan

RQP No. 34011/(15)/2009-CPAM dated 27.09.10

518

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DIBU JAMTA
Deputy General Manager (Mining Plan)
ECC, A-EA, Sector-24, Noida-201301 (U.P.)

locations along the water channels to arrest sediments and clean water will be allowed to flow into natural water course.

10.5.5. Treatment and disposal of water from mine

The water inside the mine pit is expected from the rain water during rainy season. Entire precipitation over the pit will be channelised systematically into natural drainage. In order to ensure the discharge of clean water into the natural drainage, sedimentation ponds will be made at suitable location to arrest the sludge. Accumulated sludge will be scraped off time to time to maintain the proper mine water discharge. In order to monitor and subsequent management of water quality, monitoring stations will be located near settling pit. Effluent treatment plant is envisaged for treatment of water discharge from workshop as well as domestic waste.

10.5.6. Management of air quality

In the proposed lease area, the existing air quality is within the norms as specified by the National Ambient Air Quality Standards (NAAQS). Fugitive dust shall be generated in open cast mine due to drilling, blasting, handling of overburden & coal. To control dust from various operations following measures will be resorted to.

- Drilling area will be wetted prior to drilling
- Water will be sprayed during loading/unloading of OB and ore
- Periodical water spraying will be done on haul road, overburden dump & stacks of coal
- Trees will be planted on road side.
- Dumps will be stabilised by planting grass/trees

SANJEV KUMAR SINGH
Proposed Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

PRAWAN DEV JAMTA
Dep. Chief Manager (Commercial)
NTPC LIMITED
ECC A-84, Sector-24, Noida-201301 (U.P.)

It has been proposed that all mining and ore processing equipment will have dust extraction and separation attachment to minimise air pollution. In order to monitor and subsequent management of air quality, monitoring stations will be located near dust generating areas such as haul road, OB dump, coal handling plant etc.

10.5.7. Protective measures for ground vibration/air blast caused by blasting

Loosening of rock mass will be done by the blasting of 10 to 15 m deep and 160/250 mm diameter blast holes. Burden and spacing have been proposed as 4.5 m and 5.0 m respectively. Milli-second delay detonators have been envisaged to minimise the ground vibration. Use of non-electric detonators will be used wherever required. Blast vibration studies will be conducted to optimise the burden & spacing and explosive requirement so as to minimise the vibration effect due to the blasting.

Blasting will be carried out in a periodical manner so as to minimize the impact on the local habitants and the faunal species.

10.5.8. Measures for protecting historical monuments and for rehabilitation of human settlements

Historical monuments do not exist within 5 km radius of the proposed ML area. Adequate scheme for rehabilitation for human settlement within the leasehold area, will be implemented in line with the policies of Central/State Govt.

10.5.9. Socio-economic benefits arising out of mining

The activities involved in mining and subsequent preparation of coal at proposed leasehold area will generate employment potential both directly or indirectly. As the proposed mining and transportation has been envisaged through contractual means, through Mine Developer & Operator (MDO), local

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जयन्ती/PAWAN DEV JAMTA
Dist. Central Manager (Geo. Mining)
NTPC LIMITED
FDC, A-RA, Sector-24, Noida-201301 (U.P.)

people will have employment opportunities as skilled, semi-skilled and unskilled labourers in mining, transportation and allied activities. Thus there will be overall improvement in the socio-economic status of the people of the surrounding areas. Mining activities will have a positive effect on the socio-economic condition of the people nearby, as it is a steady source of income for them. With the continuation of mining operation employment opportunities, communication, medical facilities, schooling etc will be improved further.

10.5.10. Monitoring schedules for different environmental components right from the commencement of mining and other related activities

The environmental staff will make and conduct routine field monitoring and inspections and interact closely with operations personnel. The necessary planning of environmental field activities such as topsoil removal, storage and replacement will be performed by the environmental staff.

Environmental monitoring and reporting will be conducted to provide a close supervision on the surrounding natural environment and provide early warnings of any adverse changes that may be related to some dimension of the mining and allied operations. The activity can be categorised into routine tasks.

In order to carry out routine tasks in a systematic manner, Environmental group will practice the following:

- Plan a site-based strategy to control pollution. The strategy should include formulation of code of actions for controlling air, water, noise, soil pollution, managing blasting effects, phase wise afforestation scheme and actions to be taken in respect of socio economic development. Frequency of monitoring/ sampling and inspection of various parameters / factors will also be planned.
- Oversee environmental control measures are implemented as per approved action plan.
- Plan conservation programmes in respect of water and energy.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जमुआ/PAWAN DEV JAMTA

- Identify and record the constraints in respect of environmental planning and implementation.
- Systematically document all the field monitoring and laboratory analysis results. Analyse the monitoring results and inspection findings. The results can be compared with various standards/ Norms. Prepare periodic progress reports, which will include the analysis and inspection results. Environmental audit results and actions taken should also be systematically documented.

Monitoring and compliance shall be done as per Environmental, Forest and other statutory clearances accorded for the project. However, tentative monitoring schedules are provided in **Table 10.18.**

Table 10.18

Monitoring Schedule

Sl. No.	Description of Parameters	Schedule and Duration of Monitoring
1	Slope Failure	Bi-Weekly
2	Land Erosion	Weekly
3	Drainage	Daily
4	Blasting effect	As per mine workings and blasting
5	Re-vegetation and Green belt development	Yearly
6	Monitor Plantation Measures	Yearly
7	Surface Subsidence	Bi-Weekly
8	Water Quality Monitoring(Ground & Surface)	
	Water quality of Surface and ground water around the site (All parameters specified by JSPCB)	Monthly
9	Emissions and Air Quality (RPM,SO_2, NO_x, CO)	24 hourly samples with analysis carried out

Sl. No.	Description of Parameters	Schedule and Duration of Monitoring
		monthly all-round the year.
10	Meteorological Station	Continuous
11	Air Quality	Continuous
12	Noise Quality	Continuous
11	Occupational Health	Bi-Weekly

10.6 ENVIRONMENT MANAGEMENT OF PAKRI BARWADIH NORTH WEST (SECTOR-A) QUARRY

Environmental Clearance for Pakri Barwadih Project (covering Western and Eastern Part of the Block) was accorded by MoEF on 19.05.2009 for rated production of 15 MTPA. At that time the North Western (Sector-A) part of this block was unexplored. Subsequent to detailed exploration, NTPC submitted Mining Plan which could not be presented to MoC. In compliance to the MoC letter no- 13013/29/2003- CA-I dated 09.10.2014 NTPC is submitting Mining Plan of Pakri Barwadih (Rev.1) for consideration of MoC. Base line environmental data is unavailable for this part of the block.

In the present Pakri Bawadih West & East and Pakri Barwadih NW are integrated as a result this mine shall be producing 18 MTPA. As the clearance is already obtained for 15 MTPA, NTPC shall conduct EIA/EMP for PB-NW part and submit proposal to MoEF & CC for consideration.

The environmental management plan shall include the evaluation of impacts of carrying out mining activities, mitigation of environmental pollution and monitoring of environmental parameters such as land, water, air etc.

Environmental mitigation measures and monitoring and control of environmental parameters shall be carried out in line with that proposed for Pakri Barwadih West and East Quarry.

Salient features of the PB NW Quarry (sector-A) for planning the study are briefly given in **Table 10.19**

Table 10.19

Salient Features of PB NW (Sector-A) Quarry

a)	Applied Lease area	485 ha (Equal to Block area)
b)	Core Zone	485 ha Block area
c)	Nature of land	Habitated land, Agricultural land, waste land, Forest land and Water bodies
d)	Mineral to be mined	Coal
e)	Scale of operation	The capacity of proposed mine is 3.00 million tonnes per annum (Mtpa)
f)	Anticipated life of mine	38 years (excluding two years of construction period)
g)	Method of mining	Opencast
h)	Surface transport	By trucks and CHP within the ML, by combination of road, CHP and railways from pit head to the thermal power plant

10.6.1 SOCIO ECONOMIC STUDY

Socio Economic Survey Study is under process and the findings of the study will be incorporated after finalization of SES report.

10.6.2 EXISTING LAND USE PATTERN

Mining, dumping, road, built area etc. will change the existing land use pattern by degrading/utilizing forest and non-forest land. Post mining land use pattern is given in **Chapter-IX.**

CHAPTER XI

PROGRESSIVE AND FINAL MINE CLOSURE PLAN



पवन देव जामता/PAWAN DEV JAMTA
उप महाप्रबंधक (सी.टी.ए.)
Deputy General Manager (C.T.A.)
एन टी पी सी लिमिटेड/NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

CHAPTER-XI
MINE CLOSURE PLAN

11.1 Introduction on Mine Closure Plan

The present Mine Closure Plan is prepared for 4695 Ha, which includes PB West, PB East and PB North West Quarries. This Mine Closure Plan covers extraction area, external OB dump area, facilities, diversion/realignment of nallah & road, colony and coal evacuation through cross country conveyor.

Mine Closure Plan based on the Approved Mining Plan has already been approved by MoC as separate document vide letter No. 34011/09/2011-CPAM dated 20.04.2012 (Copy of approval letter is placed as **Annexure-XIII**).

The Mine Closure Plan is integrated with present Mining Plan of Pakri Barwadih Mining Plan (1st Revision). Mine Closure Plan consists of two parts namely "Progressive Mine Closure Plan" and "Final Mine Closure Plan". Final Mine Closure Plan shall be prepared five years before closure of mine. Present Progressive Mine Closure Plan is in line with the MoC guidelines issued in this regard includes all aspects covered in approved Mine Closure Plan.

11.1.1 Reasons for Closure

Mine shall be closed either

- after exhaustion of coal reserves or,
- by any order of government or,
- by any violation of statutory obligation or,
- any other unforeseen reason.

पवन देव जाणता/PAWAN DEV JAMTA
Dep. General Manager (Coal Planning)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

11.1.2 Statutory Obligations

All applicable statutory rules, regulations, bye-laws etc. and statutory requirement related to Government Licenses, workers' compensation, insurance, etc. including Minimum Wage Act for the workers employed by the outside agencies shall be adhered to. Following statutory rules, regulations, bye-laws etc. shall be adhered to:

SANJEV KUMAR SINGH
Prodgyoogi Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

a. Coal Mines Regulation 1957
b. Mines Act 1952
c. Mines Rules 1966
d. Vocational Training Rules 1966
e. Indian Electricity Rules 1956
f. DGMS circulars from 1948 (up-to-date)
g. Factories Act1948 (as applicable to mines)
h. Explosive Act and Rules
i. Conditions attached to statutory permissions and exemptions granted by DGMS to Mines of CIL.
j. Recommendations of National Safety Conferences, Tripartite Safety Review
k. Special guidelines issued by DGMS following accident enquiries etc.
l. ILO code of Safety and Health and in open cast Mines (1991).

Special conditions imposed while execution of lease deed, approval of Mining Plan, directive issued by the Ministry of Coal, conditions imposed by the MoEF, State Pollution Control Board or by any other statutory organizations shall be followed. All conditions stipulated in the Approved Mining Plan, Environmental clearance, Forest clearance and other future clearances shall be complied. List of clearance along with their status is given in **Table 11.1**

Table 11.1

LIST OF CLEARANCES FOR PB EAST, WEST and NORTH WEST QUARRY

Sl. No.	Clearances	Status for PB West & East Quarry	Status for NW Quarry
1.	Approval of Mining Plan by MoC	Approved	Not Approved
2.	Revised Mining Plan (1st Revision) and Mine Closure Plan	Under approval	Integrated with PB West and East as one mine mine

SANJIV KUMAR SINGH
Registered Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जामटा/PAWAN DEV JAMTA
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

3.	Public Hearing conducted by SPCB	Completed	Not done
4.	Environment clearance by MoEF	Obtained	Not Available
5.	Forest clearance by MOEF(Stage I and Stage II)	Obtained	In Process
6.	Permission for Diversion of Nalla passing through West Quarry of PB from Govt. of Jharkhand	Obtained	Not Available
7.	Permission for Withdrawal of Ground Water from CGWA	Obtained	In Process
8.	Land Acquisition / surface rights - State Govt. /Govt. of India	In Process (Section 11 under CBA Act has been notified)	In Process
9.	Clearance for use of explosives and construction of magazine	In Process	Integrated with PB WE as one mine mine
10.	Permission for opening of coal mine from DGMS	Obtained	In Process

11.1.3 CLOSURE PLAN PREPARATION

Conceptual Final Mine Closure Plan has been prepared. However, Final

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जमिटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वर्ग-दो पाठ)
Deputy General Manager (Government)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Mine Closure plan shall be prepared 5 years before the likely cessation of mining operations shall continue for 3 years after likely cessation of mining operations and will have the approval of the Board of Directors.

11.2 MINE DESCRIPTION

The entire coal block has been considered for opencast mining in the interest of conservation of reserves and techno economic considerations.

The minimum workable in-band thickness of seam for opencast mining has been taken as 1.00 m. In case of opencast potentiality, a seam has been considered as splitted if the parting between the two sections has attained a thickness of more than 1.00 m and is persistent.

During the course of mining operations, Khora, Dumuhani and Hardara Nala will need to be diverted at different stages of mining operations to ensure safety of mine workings as also for releasing the coal reserves which otherwise would be lost in the safety barriers required to be left against this water channel. Care would also be necessary to provide suitable garland drains as well as embankment along diverted nala route to avoid any inundation of opencast mine workings.

11.2.1 Mine Boundaries

It is proposed to mine maximum area leaving a barrier of 7.5 m on surface from block boundary which is a statutory requirement. The boundaries of PB West & East Quarry PB-NW Quarry are delineated and given in **Table-11.2**.

Mine parameters for the delineated mine boundaries are shown below:

Table 11.2
Boundaries up to 300 m depth line

Particulars	WEST QUARRY				EAST QUARRY	NORTH WEST QUARRY	
	WP -1	WP -2	WP -3	WP -4		PIT-1	PIT-2
North-West Boundary	Incrop of seam I	F_1 and incrop of seam I	Incrop of seam I	Incrop of seam I	Incrop of seam I	In-crop of K -1 seam Quarry surface has been projected at 45° on the surface, with respect to the quarry floor.	In-crop of K -1 seam Quarry surface has been projected at 45° on the surface, with respect to the quarry floor.
West Boundary	Khora nala and incrop of	Khora nala and incrop of	Adjoining line	Khora nala	F_1 F_2	20 m from the Khora – II Nala.	20 m from the Khora – II Nala.

RQP No. 3401(/(15)/2009-CPAM dated 27.09.10
SANJIV KUMAR SINGH
Recognised Qualified Person
Ministry of Coal, Govt. of India
दस्तावेज़ पर हस्ताक्षर/PAWAN DEV JOSHI
Deputy General Manager (Mining)
Dy. Chief / Mines Manager (Mining)
Page 50 of 4

	seam I	seam I					
East Boundary	F_{ss} & Incrop of seam I	F_{ss} - F_{ss}	F_s	F_s	F_1 F_2 F_3 F_4	60 m from the Khora - A Nala	60 m from the Khora - A Nala
South-East Boundary	F_{ss}	F_{ss} & F_{ss}	F_s and FRL of 300 Seam-II	300 m depth bwl FRL of 120 m Seam II	300 m depth & FRL of 120 m of Seam II	Quarry surface has been projected at 45° on the surface as well as on the confluence of Khora Nala - A & B.	Quarry surface has been projected at 45° on the surface as well as on the confluence of Khora Nala - A & B.

Note: 7.5m space width is left from the outer boundary of PB NW quarry

Some major system parameters are given in **Table 11.3**.

Table-11.3

System Parameters

Sl. No.	Particulars	PB-West & East	PB -NW
1.	Maximum Bench Height		
	Top OB	15m	15m
	Coal and intervening parting	5 - 15m	5 - 15m
2.	Proposed minimum Bench Width		
	Working Bench	50m	40m
	Non-Working Bench Width	25m	25m
3.	Width of the permanent haul road	30m	25m
4.	Width of the temporary transport ramp	10m	10m
5.	Usual height of the spoil dump bench (1Tier)	30m	30m
6.	Width of the active dump bench	30m	30m
7.	Bench Slope		
	OB Bench	70°	70°
	Coal Bench		70°
	Dump bench	37°	37°
	Overall (Ultimate) pit slope	**37°** (300 m depth)	43° (155m depth)

SANJEEV KUMAR SINGH
Recognised Qualified Person
Regn. of Coal Bearing Areas
पवन देव जामटा/PAWAN DEV JAMTA
Dep. General Manager
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC, A-64, Sector-24, Noida-201301 (U.P.)

11.2.2 Geology

The Pakri-Barwadih block (East & West Quarry) comprises of Talchir, Karharbari, Barakar, Barren Measures and Raniganj Formations belonging to Damudas, a Sub-Group of Lower Gondwana.Talchir Formation rest directly over the Pre-Cambrains. The Karharbans and Barkars are the main coal bearing formations in the block. Stratigraphic succession of the formations in the PB West & East and PB NW is given in the following **Table-11.4 A**.

Table-11.4 A

Stratigraphic Sequence of Pakri-Barwadih Block

Period	Group	Sub-group	Formation	Thickness Range	Lithology
Recent	Lower Gondwana	Damuda	Alluvium	3.50 – 25.85	Detrital and Alluvial soil & subsoil
Upper Permian			Raniganj	1.50 – 324.50	Fine to medium grained micaceous sandstone, interbanded shale and sandstone, Carbonaceous shale & thin uneconomic Coal seams.
Upper Permian			Barren Measures	5.14 – 353.00	Dark shale, sandy shale & interbanded shale & sandstone.

PAWAN DEV JAMTA
Dep. General Manager (Commercial)
EOC, A-8A, Sector-24, Noida-201301 (U.P.)
SANJIV KUMAR SINGH
Ministry of Coal, Govt. of India

			Barakar	12.50 - 268.85	Fine to coarse grained sandstone, Shale, Conglomerate, Carbonaceous shale & Coal seams
			Karharbari	10.00 – 81.60	Medium to coarse grained sandstone, Shale, silicified quartzite rock & thin coal seams.
Permo Carboniterous	--	--	Talcher	0.80 – 13.50	Green coloured shale, Boulder & Congolomerate
---Unconformity---					
Pre-Cambrian	--	--	Metamorphics	--	Granite, Gneisses & Quartzites

There are a few small outliers of Barakar/ Kaharbari/ Talchir Formations occurring over the Pre-Cambrian Basements immediately north of the Pakri-Barwadih Block.

However, in PB North West (sector-A) area small exposures of sand stone and coal seam are found near the bank of Khora Nala in the western margin of the block. At places Karharbari Formation also rest directly over metamorphic. The geological succession established in the PB North West area (sector-A) of the block from sub-surface exploration data is given in **Table 11.4 B**.

पवन देव जामटा/PAWAN DEV JAMTA
Deputy General Manager
ECC A-4A, Sector-24, Noida-201301 (U.P.)

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

Table-11.4 B

STRATIGRAPHIC SUCCESSION OF PB NW (SECTOR-A) AREA OF COAL BLOCK

Period	Group	Sub-Group	Formation (Thickness)	Lithology
Recent & Sub-Recent			Alluvium (3.00 to 23.00m)	Soil & Sub-soil
Unconformity				
Middle Permian			Barren Measure (44.00 – 138.70m)	Predominantly shale with intercalation of sandstone and shale and arenaceous shale
Lower Permian	Lower Gondwana	amuda	Barakar (19.07m – 137.10m)	Fine to coarse grained sand-stones, shale, carbonaceous shale and coal seams.
			Karharbari (5.14m to 91.52m)	Fine to coarse grained sandstone with bands of shale and coal seams
Permo - Carboniferous			Talchir 0.65m to 4.64m)	Green coloured shale, boulders and conglomerates
Unconformity				
Precambrian			Metamorphics (2.80-11.00m)	Gniesses, granites and quartzites

As per the geological report, no major, minor and trace elemental analysis of different rock types was available. The chemical analysis of coal indicates presence of nontoxic minerals. The sandstones of Barakar Formation constitute major part of area forms a principal aquifer. The chemical analysis of ground water shows the trace element like Cu, Mn, Hg, Cd, Se, As, Pb, Zn, Cr, Al and B are present below deduction limit.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (मार्केटिंग)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
Noida-201301 (U.P.)

The ground water quality indirectly infers the source rocks characters hence, the rock of Pakri-Barwadih Coal block contains no toxic elements.

11.2.3 Reserves

As per United Nations Framework Classification (UNFC) the geological reserves of Pakri-Barwadih (East & West Quarry) can be classified as given in **Table 11.5.**

Table 11.5

Summary of Coal Reserve in Million tonnes

UNFC Code	Type	Net Coal Reserves
111	Proved Reserves	703
211	Feasibility Mineral Reserves	636
222	Indicated Mineral Reserves	733
Total(111+222)		**1436**

A total of 137.584 million tonnes of coal reserves has been established in Pakri Barwadih North West (Sector-A) Coal Block, out of which 134.470 m.t falls in proved category and 3.114 m.t in 'Indicated Category'. Category wise Geological Reserve of PB North West Quarry is given in **Table 11.6**.

Table 11.6

Category wise Geological Reserve of PB North West Quarry

Property	Reserves in Million Tonnes		
	Category		Total
	Proved	Indicated	Total
Opencast	106.263	0.425	106.688
Underground	28.207	2.689	30.896
Total	**134.470**	**3.114**	**137.584**

Chapter -XI Mine Closure Plan

RQP No. 34011/(15)/2009-CPAM dated 27.09.10

532

Page 9

SANJIV KUMAR SINGH
Deputy General Manager (Commercial)
NTPC LIMITED
EDC, A-49

The seam wise, grade wise and depth wise geological reserves have been provided in Geology chapter.

Net opencastable reserves of Pakri Barwadih is 808.23 Mt, barrier loss and batter loss worked out as 58.74 Mt and 106.22 Mt. Taking into account of mining losses of 20.72 Mt extractable reserves worked out as 642.34 Mt. Percentage of extraction by opencast mine is 78%. Net reserves and extractable reserves along with losses are given in **Table -11.7.**

Table -11.7

Net reserves and extractable reserves and losses

Seam	Net Reserve	Barrier Loss	Batter Loss	Mineable Reserves	Mining Loss	Extractable Reserve	% Extraction
	In Mt						
V Top	22.29	0.72	1.57	19.99	0.59	19.40	87.06
V Bottom	15.56	0.51	1.10	13.96	0.41	13.55	87.06
V Combined	11.57	0.21	0.49	10.87	0.44	10.43	90.16
Seam - V	**49.42**	**1.44**	**3.16**	**44.82**	**1.44**	**43.38**	**87.78**
IV Top	19.82	0.64	2.23	16.95	0.50	16.46	83.01
IV Bottom	9.92	0.32	1.12	8.48	0.25	8.23	83.01
IV Combined	92.32	3.15	10.66	78.49	2.43	76.06	82.39
Seam - IV	**122.06**	**4.10**	**14.03**	**103.93**	**3.18**	**100.75**	**82.54**
III Top	27.45	1.21	2.04	24.20	0.70	23.49	85.59
III Bottom	9.83	0.43	0.73	8.66	0.25	8.41	85.59
III Combined	4.80	0.21	0.36	4.23	0.12	4.11	85.59

SANJIV KUMAR SINGH

Seam	Net Reserve	Barrier Loss	Batter Loss	Mineable Reserves	Mining Loss	Extractable Reserve	% Extraction
	In Mt						
Seam - III	**42.08**	**1.85**	**3.13**	**37.10**	**1.08**	**36.02**	**85.59**
II Top	59.98	4.66	6.21	49.11	1.89	47.22	78.72
II Middle	139.75	11.83	11.24	116.68	3.83	112.86	80.75
II TM	76.09	7.28	5.63	63.18	1.77	61.40	80.70
II Bottom	116.05	10.76	9.90	95.39	2.89	92.50	79.71
II MB	17.90	1.71	1.32	14.86	0.42	14.44	80.70
II Combined	7.35	0.70	0.54	6.11	0.17	5.94	80.70
Seam- II	**417.13**	**36.95**	**34.85**	**345.33**	**10.97**	**334.36**	**80.16**
I Top	36.93	2.72	9.39	24.81	0.77	24.05	65.11
I Middle	72.97	5.27	18.20	49.49	1.66	47.84	65.56
I TM	2.51	0.23	0.79	1.49	0.04	1.45	57.80
I Bottom	35.60	2.52	8.69	24.39	0.52	23.87	67.06
I MB	14.85	1.35	4.67	8.83	0.24	8.58	57.80
I Combined	3.58	0.33	1.13	2.13	0.06	2.07	57.80
Seam- I	**166.44**	**12.42**	**42.88**	**111.14**	**3.28**	**107.86**	**64.81**
LL	2.60	0.10	0.35	2.15	0.11	2.04	78.62
K5	0.13	0.01	0.06	0.06	0.01	0.05	36.32
K4	4.21	0.13	1.11	2.97	0.11	2.86	67.83
K3	3.34	0.22	0.86	2.26	0.06	2.20	65.95
K2	5.38	0.27	1.14	3.97	0.07	3.90	72.40

SANJIV KUMAR SINGH
Registered Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जमेटा/PAWAN DEV JAMTA
वरा महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
Sector-24, Noida-201301 (U.P.)

Seam	Net Reserve	Barrier Loss	Batter Loss	Mineable Reserves	Mining Loss	Extractable Reserve	% Extraction
	In Mt						
K1	15.24	1.25	4.65	9.34	0.41	8.93	58.62
Seam-Local	30.90	1.98	8.17	20.75	0.77	19.98	64.66
Total	828.03	58.74	106.22	663.07	20.72	642.34	77.58

11.2.4 Mining Method

Opencast mining method for the targeted reserves has been adopted due to following reasons

a. The coal seams are in cropping at a shallow depth;
b. The OB : Coal ratio is favorable (3.15 : 1) for opencast mining;
c. Higher percentage of recovery as compared to underground system.
d. The mining by opencast method shall be economical against underground method
e. The opencast mining operations are comparatively safer and ensure higher recovery of coal resource.

Shovel & dumper combination is recommended for this block to mine the coal due to following reasons:

i. In view of multiple seams and equal nos. of inter burden layers to be tackled, an equipment system which is capable of dealing many layers at a time (flexibility) of operations with the help of smaller units has been recommended as shovel dumper combination.

ii. The quality problem can be handled with the help of hydraulic excavators, which have three-dimensional movement of bucket. They are capable of carrying out selective mining.

iii. Furthermore, to tackle about 15 Mty coal & 66 Mcum of OB from West & East Quarry and 3 Mty and 12 Mm^3 OB from several locations in the mine, comparatively medium and higher size shovels of upto 20 m^3 bucket capacity have been envisaged along with matching capacity of rear dumpers.

SANJAY KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जागरा/PAWAN DEVA JAMRA
उप महाप्रबंधक (वाणिज्य)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
Lucknow-24, Noida-201301 (U.P.)

iv. Flexibility in operation shall be available due to such equipment system.

11.2.5 Equipment Selection

A. Equipment selection for PB West and PB East Quarries

The geo-mining conditions warrant that the equipment deployed in partings and coal to alternate between the coal seam and partings. Thus, in the process of selection of mining equipment, two major equipment combinations have been proposed. One for Top OB and the other for the coal seams and the partings.

20 cum Electric Rope Shovels operating with 170T-190T class of dumpers shall be deployed in Top OB and 10 cum Electric/Diesel Hydraulic shovel/ backhoe operating with 100-120T class of dumpers in partings and Coal. The size has been decided to meet the twin objective of effective deployment, optimal utilization of the equipment and at the same time keeping the fleet size to manageable levels. This equipment size shall also offer a choice from a variety of vendors during the procurement and facilitate better inventory management.

In the initial years, the mine shall be opened by 10 cum hydraulic shovel/backhoe working with 100-120 T rear dumpers. This is proposed, as this combination shall have much smaller lead time for deployment. Deployment of 20 cum Electric rope shovels shall start as soon as the load for top OB increases.

A part of the Top OB workload is also proposed to be handled by 10 cum Hydraulic shovel/backhoe operating with 100-120T rear dumpers. This has been done in years where there isn't enough consistent workload for a deployment of a new 20 cum rope shovel. This gives flexibility to the operations and also ensures better equipment utilization.

It is also proposed to work out the thin seams/partings with the help of high capacity ripper dozers (510hp).

B. Equipment selection for PB NW Quarries.

The geo-mining conditions warrant that the equipment deployed in partings and coal to alternate between the coal seam and partings. Thus, in the process of selection of mining equipment, two major equipment combinations have been proposed. One for Top OB and the other for the coal seams and the partings.

10 cum Electric Rope Shovels operating with 100T class of dumpers shall be deployed in Top OB and 5.5 cum Electric/Diesel Hydraulic shovel/ backhoe operating with 60 T class of dumpers in partings and Coal. The size has been

decided to meet the twin objective of effective deployment, optimal utilization of the equipment and at the same time keeping the fleet size to manageable levels. This equipment size shall also offer a choice from a variety of vendors during the procurement and facilitate better inventory management.

In the initial years, the mine shall be opened by 5.5 cum hydraulic shovel/backhoe working with 60 T rear dumpers. This is proposed, as this combination shall have much smaller lead time for deployment. Deployment of 10 cum Electric rope shovels shall start as soon as the load for top OB increases.

A part of the Top OB workload is also proposed to be handled by 5.5 cum hydraulic shovel/backhoe operating with 60T rear dumpers. This has been done in years where there isn't enough consistent workload for a deployment of a new 10 cum hydraulic shovel. This gives flexibility to the operations and also ensures better equipment utilization.

It is also proposed to work out the thin seams/partings with the help of high capacity ripper dozers (410hp). These machines shall rip the material, doze to form a heap to be handled by 10 cum front end loaders with 100 T class dumpers.

Detailed list of HEMM deployment has been provided in Chapter-V "Mining".

11.2.6 Mined - Out Land

The opening of a mine, irrespective of the method of mining, has impact on the land use pattern. In the proposed project, the impact on the land is expected due to following activities:-

- Extraction of Coal and Overburden removal.
- Dumping of overburden as well as Coal,
- Construction of infrastructural facilities such as, workshop, office, road etc. within the project area.
- Diversion of Nalla, stream etc.

Mining, dumping, road, built area etc. shall change the existing land use pattern by degrading/utilizing forest and non-forest land. Post mining land use pattern is given in **Table 11.8.**

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जमीन/PAWAN DEV JAMTA
Dep. Geo. Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
Sector-24, Noida (U.P.)

TABLE 11.8

POST MINING LAND USE PATTERN

SL. NO.	TYPE OF LAND USE	AREA IN PB WEST & EAST QUARRY (Ha)	AREA IN PB NORTH WEST QUARRY (Ha)	TOTAL (Ha)
1	Plantation	2844	286	3130
2	Water Body	596	104	700
3	Public Use	105	47	152
4	Grazing	223	24	247
5	Agriculture and Greenbelt	442	24	466
6	Total	4210	485	4695

11.2.7 Water Quality Management

Water is an essential element for sustenance of life supporting system on the earth. It is an essential requirement for all human activities right from survival to the development. Therefore, quality and quantity of water are the utmost important factors for survival and sustainable development. Hydro-geologically, the district is mainly confined to Precambrian crystalline ground water and Gondwana ground water province.

11.2.7.1 Existing Surface and Groundwater bodies

A. Surface Water Resources

The source of the surface water is mainly River, Nallahs and Ponds. The drainage system of the study area is dendrites to sub-dendritic type and well developed. The drainage of the block is controlled by Sunrah River in the east, which finally joins to Badmahi River, which is one of the major tributary of Damodar River flowing in south central part of coalfield. Three major nallahs flows north to south of the area viz. Khora, Dumuhani and Hardara (Pakwah). Besides these major nallahs of the block, there are many small Streams & streamlet, which discharge their load into this major nallahs. All the nallahs of the block are seasonal and become dry during summers.

B. Ground water sources

The groundwater in sedimentary formation occurs under confined conditions and is limited to the thickness of the formation. The Barakar formation acts as a good aquifer due to high porosity and permeability in the formation. Predominantly western part of the study area comprises of hills and rugged topography, the water level is at great depth as compared to the Pedi plain areas. Mostly the rainwater gets run-off in this area and hence the percentage of recharge of ground water is very less. The water table of this area varies from 5m to 20m; in the valley-fill areas, the water table is at shallow depth. The ground recharge in these areas is very high. The major source of drinking water is dug wells and hand pumps, which are available in almost all the villages in the study area.

11.2.7.2 Existing Water Quality (Surface and Groundwater)

Water quality monitoring was carried out in order to collect baseline data on existing water quality, which can be used to predict the impacts due to the project on water regime. Samples were collected from fifteen (15) locations within the block area.

The results of analysis of surface water is given in **Table 11.9**. The results have been compared with the IS: 10500. It can be seen that at all seven monitoring stations, water from these sources can be used for drinking after conventional treatment and disinfection.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Deputy General Manager
WTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Table 11.9

Results of Surface Water Analysis

Sl. No	Parameters	Results						
		SW1	SW2	SW3	SW4	SW5	SW6	SW7
1	Colour, Hazen Units	30	>70	20	30	40	20	50
2	Odour	#	#	#	#	#	#	#
3	Turbidity, NTU	30	100	700	1400	1500	1000	340
4	pH at 30oC	7.1	7.25	7.7	7.68	7.34	7.34	7.33
5	Dissolved Oxygen, mg/l	2.06	3.29	5.36	5.05	5.56	5.25	0.3
6	Iron(as Fe), mg/l	5.8	4.48	21.48	13.64	105.89	53.96	12.57
7	Floating Matter (TSS) in mg/l	65	124	720	1480	1840	1140	380
8	Chloride(as Cl), mg/l	14.24	9.5	18.99	9.5	11.87	18.99	56.98
9	Fluoride (as F), mg/l	0.63	0.53	0.42	0.41	0.28	0.13	0.67
10	Total Dissolved Solids, mg/l	130	94	152	122	92	74	310
11	Copper (as Cu) in mg/l	<0.01	<0.01	<0.01	0.026	0.026	0.02	<0.01
12	Sulphate (as SO4), mg/l	22.4	20	33.6	18.8	24.22	16	40
13	Nitrates (as NO3), mg/l	0.39	1.65	0.71	2.38	0.56	0.66	0.27
14	BOD (3 days at 27°C), mg/l	40	44	22	28	24	46	54

SANJIV KUMAR SINGH
Registered Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

15	Phenolic Compound (as C_6H_5OH) in mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
16	Cadmium (as Cd) in mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
17	Selenium (as	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
18	Arsenic (as As) in mg/l	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
19	Lead (as Pb) in mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
20	Zinc (as Zn) in mg/l	<0.005	<0.005	0.03	0.077	0.026	0.03	0.156
21	Anionic Detergent (MBAS) in mg/l	0.11	0.16	0.49	0.6	0.62	0.46	0.25
22	Hexavelent Chromium(as Cr+6)in mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
23	Oil &Grease in mg/l	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
24	Total colifom org. MPN/100 ml	36	230	210	73	91	36	2400
#Unobjectionable								

The results of analysis of ground water are given as **Tables 11.10 A**, **11.10 B** and **11.10 C**. The results have been compared with the drinking Water Quality standards specified in IS 10500. From the results it transpires that the ground water quality parameters meet the prescribed norms.

SANJIV KUMAR SINGH
Recognised Qualified Person
Reg. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Table 11.10A
Results of Ground Water Analysis

Sl. No.	Parameter	Norms		Results			
		Desirable limits *	Permissible limits **	GW1	GW2	GW3	GW4
Essential Characteristics							
1	Colour	5	25	<5.0	<5.0	<5.0	<5.0
2	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Odour	#	#	#	#	#	#
4	Turbidity as NTU	5max.	10	<1.0	<1.0	2.9	<1.0
5	pH	6.5-8.5	6.5-8.5	7.52	7.41	7.67	7.32
6	Total Hardness (as CaCO3) in mg/l	300	600	233.12	297.92	219.52	346.96
7	Iron (as Fe) in mg/l	0.3	1	<0.1	<0.1	0.14	<0.1
8	Chlorides (as Cl) in mg/l	250	1000	33.11	85.53	17.47	47.82
9	Fluoride(as F) in mg/l	1	1.5	0.18	0.56	0.4	0.19
10	Residual Free Chlorine in mg/l	0.2	-	NIL	NIL	NIL	NIL
Desirable Characters							
11	Total Dissolved Solids in mg/l	500	2000	320	428	262	324
12	Calcium (as Ca) in mg/l	75	200	59.55	73.7	68.99	61.15
13	Magnesium (as Mg) in mg/l	30	100	21.84	27.28	11.29	22.58
14	Copper (as Cu) in mg/l	0.05	1.5	<0.01	<0.01	<0.01	<0.01
15	Manganese (as Mn) in mg/l	0.1	0.3	<0.01	<0.01	<0.01	<0.01
16	Sulphate (as SO4) in mg/l	200	400	6	30.8	2	21.2

SANJAY KUMAR SINGH
Recognised Qualified Person
Govt. of India

(RQP) MINES/PAWAN DEV JAMTA
Deputy General Manager (Mining)
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

17	Nitrates (as NO3) in mg/l	45	100	<0.1	<0.1	<0.1	<0.1
18	Phenolic Compound (as C6H5OH) in mg/l	0.001	0.002	<0.001	<0.001	<0.001	<0.001
19	Mercury (as Hg) in mg/l	0.001	0.001	<0.0005	<0.0005	<0.0005	<0.0005
20	Cadmium (as Cd) in mg/l	0.01	0.01	<0.005	<0.005	<0.005	<0.005
21	Selenium (as Se) in mg/l	0.01	0.01	<0.005	<0.005	<0.005	<0.005
22	Arsenic (as As) in mg/l	0.05	0.05	<0.03	<0.03	<0.03	<0.03
23	Lead (as Pb) in mg/l	0.05	0.05	<0.05	<0.05	<0.05	<0.05
24	Zinc (as Zn) in mg/l	5	15	<0.005	<0.005	<0.005	<0.005
25	Anionic Detergent (MBAS) in mg/l	0.2	1	NIL	NIL	NIL	NIL
26	Hexavalent Chromium (as Cr+6) in mg/l	0.05	0.05	<0.01	<0.01	<0.01	<0.01
27	M-Alkalinity (as CaCO3) in mg/l	200	600	254.8	156.8	229.32	203.84
28	Aluminium (as Al) in mg/l	0.03	0.2	<0.01	<0.01	<0.01	<0.01
29	Boron (as B) in mg/l	1	5	0.26	0.86	2.84	3.73
30	Cyanide (as CN) in mg/l	0.05	0.05	<0.01	<0.01	<0.01	<0.01
31	MineralOil, mg/l	0.01	0.03	<0.01	<0.01	<0.01	<0.01

* Requirement(Desirable limits),#:Unobjectionable

** Permissible limits in the absence of alternate source

SANJIV KUMAR SINGH
Recognised Qualified Person
Vide 34011/(15)/2009-CPAM
Govt. of India

DEEPTHAWAN DEV JAMTA
Deputy General Manager (Environment)
NTPC LIMITED
EDC, A-8A, Sector-24, Noida

Table 11.10 B
Results of Ground Water Analysis

Sl. No	Parameter	Norms		Results			
		Desirable limits *	Permissible limits **	GW5	GW6	GW7	GW8
				10.06.05	10.06.05	12.06.05	12.06.05
Essential Characteristics							
1	Colour	5	25	<5.0	<5.0	<5.0	<5.0
2	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Odour	#	#	#	#	#	#
4	Turbidity as NTU	5	25	1.7	<1.0	3.5	1.6
5	pH	6.5-8.5	6.5-8.5	7.37	7.47	7.27	7.52
6	Total Hardness (as CaCO3) in mg/l	300	600	235.2	211.68	301.84	348.88
7	Iron (as Fe) in mg/l	0.3	1	<0.1	0.12	0.53	0.76
8	Chlorides (as Cl) in mg/l	250	1000	68.05	20.23	44.14	93.81
9	Fluoride(as F) in mg/l	1	1.5	0.38	0.47	0.072	0.092
10	Residual Free Chlorine in mg/l	0.2	-	NIL	NIL	NIL	NIL
Desirable Characters							
11	Total Dissolved Solids in mg/l	500	2000	235.2	211.68	301.84	348.88
12	Calcium (as Ca) in mg/l	75	200	61.15	65.86	98.78	106.62
13	Magnesium (as Mg) in mg/l	30	100	19.75	11.29	13.17	19.75

SANJIV KUMAR SINGH
Recognised Qualified Person
Reg. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जमिता/PAWAN DEV JAMTA
Deputy General Manager (Coal Manager)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDIC A-21, Noida-201301 (U.P.)

14	Copper (as Cu) in mg/l	0.05	1.5	<0.01	<0.01	<0.01	<0.01
15	Manganese (as Mn) in mg/l	0.1	0.3	<0.01	<0.01	<0.01	<0.01
16	Sulphate (as SO4) in mg/l	200	400	61.15	65.86	98.78	109.62
17	Nitrates (as NO3) in mg/l	45	100	< 0.1	< 0.1	< 0.1	< 0.1
18	Phenolic Compound (as C6H5OH) in mg/l	0.001	0.002	<0.001	<0.001	<0.001	<0.001
19	Mercury (as Hg) in mg/l	0.001	0.001	<0.0005	<0.0005	<0.0005	<0.0005
20	Cadmium (as Cd) in mg/l	0.01	0.01	<0.05	<0.05	<0.05	<0.05
21	Selenium (as Se) in mg/l	0.01	0.01	<0.05	<0.05	<0.05	<0.05
22	Arsenic (as As) in mg/l	0.05	0.05	<0.03	<0.03	<0.03	<0.03
23	Lead (as Pb) in mg/l	0.05	0.05	<0.05	<0.05	<0.05	<0.05
24	Zinc (as Zn) in mg/l	5	15	<0.005	<0.005	<0.005	<0.005
25	Anionic Detegent (MBAS) in mg/l	0.2	1	NIL	NIL	NIL	NIL
26	Hexavalent Chromium (as Cr+6) in mg/l	0.05	0.05	<0.01	<0.01	<0.01	<0.01
27	M-Alkalinity (as CaCO3) in mg/l	200	600	188.16	203.84	289.68	184.24
28	Aluminium (as Al) in mg/l	0.03	0.2	<0.01	<0.01	<0.01	<0.01
29	Boron (as B) in mg/l	1	5	3.77	1	1.42	1.29

SANJAY KUMAR SINGH
Recognised Qualified Person
Reg. 34011/(15)/2009-CPAM
Govt. Govt. of India

पवन देव जायसवाल/PAWAN DEV JAISWAL

30	Cyanide (as CN) in mg/l	0.05	0.05	<0.01	<0.01	<0.01	<0.01
31	MineralOil mg/l	0.01	0.03	<0.01	<0.01	<0.01	<0.01
* Requirement(Desirable limits) # Unobjectionable							
** Permissible limits in the absence of alternate source							

Table 11.10 C
Results of Ground Water Analysis

Sl. No.	Parameter	Norms		Results		
		Desirable limits *	Permissible limits **	Sinduari	Pakri-Barwadih	Deworia-Khurd
				15.12.05	15.12.05	15.12.05
Essential Characteristics						
1	Colour	5	25	<5	<5	<5
2	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Odour	#	#	#	#	#
4	Turbidity as NTU	5 max	10	<1	5.2	<1
5	pH	6.5-8.5	6.5-8.5	7.97	7.73	7.99
6	Total Hardness (as CaCO3) in mg/l	300	600	355.52	298.06	246.44
7	Iron (as Fe) in mg/l	0.3	1	0.37	0.25	BDL
8	Chlorides (as Cl) in mg/l	250	1000	81.29	79.15	38.5
9	Fluoride(as F) in mg/l	1	1.5	0.23	0.15	BDL
10	Residual Free Chlorine in mg/l	0.2	-	NIL	NIL	NIL
Desirable Characters						

11	Total Dissolved Solids in mg/l	500	2000	390	3	248
12	Calcium (as Ca) in mg/l	75	200	87.26	64.64	72.72
13	Magnesium (as Mg) in mg/l	30	100	32.96	32.97	15.51
14	Copper (as Cu) in mg/l	0.05	1.5	BDL	BDL	BDL
15	Manganese (as Mn) in mg/l	0.1	0.3	BDL	BDL	BDL
16	Sulphate (as SO4) in mg/l	200	400	22.88	7.49	3.74
17	Nitrates (as NO3) in mg/l	45	100	16.38	6.05	5.19
18	Phenolic Compound (as C6H5OH) in mg/l	0.001	0.002	BDL	BDL	BDL
19	Mercury (as Hg) in mg/l	0.001	0.001	BDL	BDL	BDL
20	Cadmium (as Cd) in mg/l	0.01	0.01	BDL	BDL	BDL
21	Selenium (as Se) in mg/l	0.01	0.01	BDL	BDL	BDL
22	Arsenic (as As) in mg/l	0.05	0.05	BDL	BDL	BDL
23	Lead (as Pb) in mg/l	0.05	0.05	BDL	BDL	BDL
24	Zinc (as Zn) in mg/l	5	15	0.05	BDL	BDL
25	Anionic Detergent (MBAS) in mg/l	0.2	1	NIL	NIL	NIL
26	Hexavalent Chromium (as Cr+6) in mg/l	0.05	0.05	BDL	BDL	BDL
27	M Alkalinity (as	200	600	232	190.52	180.96

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Govt. of India

Deputy General Manager (Corp. Planning)
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

	CaCO3) in mg/l					
28	Aluminium (as Al) in mg/l	0.03	0.2	BDL	BDL	BDL
29	Boron (as B) in mg/l	1	5	BDL	1.25	BDL
30	Cyanide (as CN) in mg/l	0.05	0.05	BDL	BDL	BDL
31	MineralOil mg/l	0.01	0.03			NIL
* Requirement(Desirable limits) # Unobjectionable						
** Permissible limits in the absence of alternate source						

11.2.7.3 Ground Water

Groundwater occurrence and storage in study area are mainly controlled by the geological set up of the area. The ability of geological formation to store and transmit water is dependent on its formation parameters, such as porosity and hydraulic conductivity.

Ground water in unconsolidated rocks circulated to a limited extent through the secondary openings represented by joints, cracks, fissures and such other planes of discontinuity. The weathered residuum of the hard rocks as well as the fractures, joints, fissures, faults and other zones of discontinuity are the principle repositories of groundwater in the area. Ground water in the weathered and fracture zones of hard rocks occur under unconfined condition. Depth of the water-table in the hard rock of the area generally ranges from 2.0 m to 15.0 m below ground level. The Gondwana sediments form the semi-consolidated formations and are better water potential zone. Gondwana sandstones are known to constitute good aquifers and ground water occurs at 7-14 m as observed in the dug wells. Depth of water level for pre-monsoon period varies from 5-7 mbgl around the block to some places it stretches to a deeper depth of 7-12 m.

Hydrogeological condition together with climate and topography influences the occurrence and movement of ground water in this region. The major source of the water in the region is south-west monsoon during summer and very small contribution from the north-east during the winter season.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जमता/PAWAN DEV JAMTA
Deputy General Manager (Environment)
NTPC LIMITED
EOC A-8A, Sector-24, Noida-201301 (U.P.)

In the study area ground water is withdrawn usually by means of open dug-wells and small diameter hand operated tube-wells. The tube-wells are most often deeper (18 m–58 m) than the dug wells and tap the fractures below the weathered mantle. During the wet monsoon seasons, the net evaporation is less than the precipitation, resulting in surplus water which loss through either surface runoff or being part of the subsurface storage.

In order to calculate the water potential and impact of proposed mining activity, the sub-watershed has been demarcated. The sub-watershed confining the contributing and receiving steams has been studied. Physical characteristics of the sub-water shed are given at **Table 11.11.**

Groundwater levels in the open wells of the villages surrounding the core zone were measured during June (Summer Season) and October (Post-Monsoon season), 2005. The measured water levels are given in **Table 11.12.**

Table 11.11
Physical Characteristics Sub-Water Shed

Sl. No.	Characteristics	Value
1.	Area	176.46
2.	Drainage density	5.3
3.	Length of river/ stream in sub- watershed	Ghagra Nadi –
4.	Elevation variation	405–681

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जमुआ PAWAN DEV JAMTA

Table11.12

Ground Water Levels in Open Wells

Sl. No.	Village	Pre-monsoon (June' 2005) (m)	Post-monsoon (Oct' 2005) (m)	Fluctuation (m)
1	Garri Kalan	8.23	2.44	5.79
2	Jamira (S)	6.71	3.35	3.36
3	Jamira (N)	15.25	6.71	8.54
4	Mataji	14.64	8.54	6.1
5	Khdahar	9.15	2.13	7.02
6	GarriKhurd	9.15	2.44	6.71
7	DeoriaKhurd	4.57	2.44	2.13
8	Darri Kalan	8.85	3.05	5.8
9	Karrigada	9.15	2.44	6.71
10	Changara	3.05	1.52	1.53
11	Sikri	6.41	3.05	3.36
12	Chandol	7.32	2.44	4.88
13	Pandual	10.87	3.05	7.82
14	Badam	5.79	2.13	3.66
15	Ambajit	8.23	2.13	6.1
16	Pipradih	5.79	2.44	3.35
17	Pakri	6.41	2.74	3.67
18	Chepa Khurd	7.62	2.44	5.18
19	Jugra	8.54	3.05	5.49
20	Chepa Kalan	6.71	1.83	4.88
21	Upardari	5.49	3.05	2.44
22	Barwadih	10.67	4.57	6.1
23	Nagriad	4.25	2.13	2.12
24	Sinduari	5.49	1.52	3.97
25	Sanbarsa	7.93	3.35	4.58
26	Rajhar	7.93	2.74	5.19
27	Palah	9.15	2.13	7.02
28	Horam	7.62	1.52	6.1
29	Harli	7.62	1.52	6.1
30	Bisrampur	6.1	2.13	3.97
31	Balta	11.89	4.88	7.01
32	Pahre	10.98	3.05	7.93
	Average	8.04	2.9	5.14

RQP No. 34011/[15]/2009-CPAM dated 23.03.10

11.2.7.4 Impact on water quality due to Mining

Washing of coal has not been envisaged at present.

11.2.7.5 Impact on Surface Water

The surface water quality is likely to be affected with higher load of suspended solids by the following:

- Wash off from dumps
- Soil erosion from mine and roads
- Pumping out mine water to surface water channels

The outside dump may contribute to the pollution of surface water in terms of suspended solids. Since dumping location proposed to be carried out at a safe distance from nallahs, it shall have negligible impact on water pollution.

The pumped out water during dewatering may carry higher levels of suspended solids. Other sources of pollution are by oil spillage at the pit head and at the facilities viz. Workshop, resulting in oil and grease contamination of surface water if appropriate control measures are not adopted.

Ground water pollution can take place only if dumps and stockpiles contain harmful chemical substances, which may get leached by precipitation of water and percolate to the ground water table, thus causing water pollution.

However, this is not the case with this mine, as neither the coal nor the OB, contains any harmful ingredients which may leach down to the water table and pollute it. Therefore, no adverse impact on ground water quality is anticipated considering this aspect. The leaching down of pollutants (oil, grease etc.) to the ground water may render the water non-potable and hence cannot be used by the local people. The percolation of sewage waste from the pit head as well as colony area shall also pollute the ground water if control measures are not adopted as envisaged in the management plan.

SANJIV KUMAR SINGH
Competent Qualified Person
Govt. of India

पवन देव जामवाल/PAWAN DEV JAMWAL
Deputy General Manager
NTPC LIMITED

11.2.7.6 Impact on water regime

The mining operation starting from western side of the coal block shall affect Dumuhani Nallah, Khora Nallah and distributary streams and streamlets joining it from northern part of the block. The nallah flows in more or less NNE to SSW direction across the western part of the lease and finally joins the Haharo-Nadi outside the southern part of lease. Groundwater level of the area varies from 25 to 35 m from the surface. The opencast mining below ground water level shall involve release of water in order of 500 m^3/hr. through pumping, which shall be discharged to the proposed garland nallah along north-eastern boundary of lease. The drawl of this quantity of water is expected to be recharged through rains during monsoon which is 200-800 mm in monsoon and 100–200 mm in post & pre-monsoon season.

In addition, water requirement of 526 m^3/ day for PB West Quarry and 553 m^3/ day for PB North West Quarry for the domestic purposes shall also be met through bore wells. Industrial water requirement for drilling, spraying over road, washing of machinery etc. shall be met through creating a small reservoir on Dumuahani Nallah, at eastern boundary of the lease and drawl through pumping.

11.2.7.7 Water Requirement

A. PB West and PB East Quarry:

The average daily demand of water for the proposed mine shall be 4576 m^3/d whereas peak daily demand shall be 5256 m^3/d. Of the 5256 m^3/d of water (peak daily demand) to be consumed in the project, 4730 m^3/d of industrial water requirement shall be met by utilizing treated mine discharge water (650 m^3/d of water shall be the recycled second used water generated from pit head bath and equipment washing). Balance 526 m^3/d of water required for drinking and for domestic purposes in the township, shall be drawn from bore-wells. The water requirement and source of water are given in Table 11.6 and Table 11.7 respectively.

B. PB North West Quarry:

The average daily demand of water for the proposed mine shall be 1089 m^3/d. Of the 1089 m^3/d of water to be consumed in the project, 537 m^3/d of industrial water requirement shall be met by utilizing treated mine discharge water. Balance 553m^3/d of water required for drinking and for

domestic purposes in the township, shall be drawn from bore-wells. The water requirement is given in **Table 11.13A and Table 11.13B.** Source of Water Supply for PB West & East Quarry is given in **Table 11.14.**

Table 11.13 A

Water Requirement (m^3/day) for West & East Quarry

Purpose	Avg. Demand	Peak Demand
A. Mine site		
1. Mine operation		
a) Drilling & Spraying	*1200*	*15 00*
2. Land reclamation	*Included in above*	*Included in above*
3. Dust suppression	*Included in above*	*Included in above*
4. Drinking	*526*	*5*
5. Green Belt	*1750*	*20*
6. Beneficiation	*Not Applicable*	*Not Applicable*
7. Washery	*Not Applicable*	*Not Applicable*
8. Fire Service	*Nil*	*1*
9. Others *a. Pit Head Bath* *b. Equipment Washing* *c. Misc.*	 *200* *700* *200*	 *2* *0* *0*
B. Township		
1. Green Belt	*Included under sl.4/5*	*Included under sl.4/5*
2. Domestic	*Included under sl.4*	*Included under*

3. Other(specify)	Not Applicable	Not Applicable
Total	4576	52

TABLE 11.13 B
WATER REQUIREMENT FOR PB NORTH WEST QUARRY

SL. NO.	PARTICULARS	m^3/day (Avg.)
1	Drinking Water Demand	553
2	Non- Drinking Water Demand	537
	Total water demand (1+2)	**1090**

Table 11.14
Source of Water Supply for PB West & East Quarry

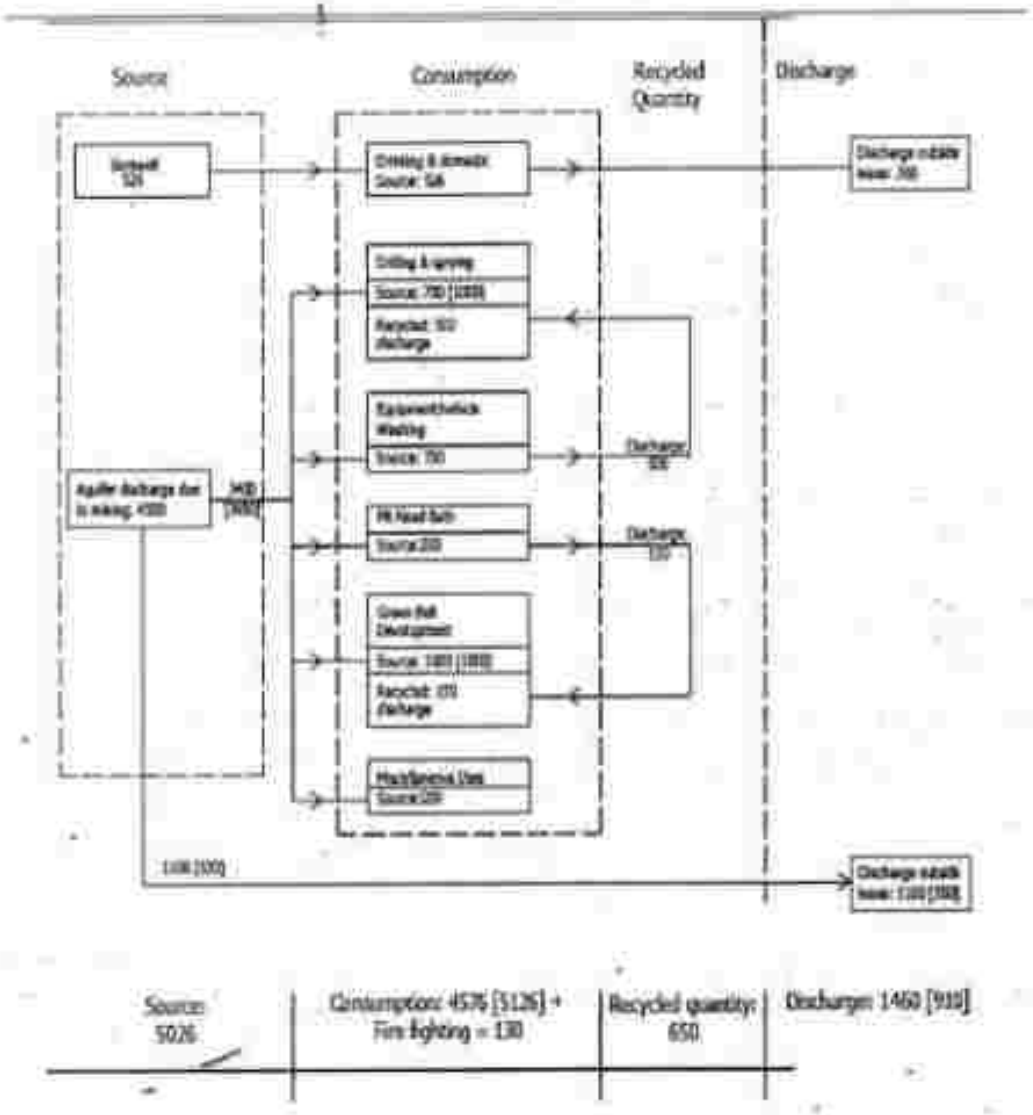
Sl. No.	Source	m^3/day (Avg.)
1	River (Specify)	
2	Ground water	526
3	Mine water (sump/ pit)	*3400 Treated Mine Discharge Water + 650 Treated Effluents (2ndUse)*
4	Other surface water bodies (specify)	*Nil*

11.2.7.8 Water Balance Diagram

(a) Water Balance chart for PB West and East Quarry is **Fig-11.1.**

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Dep. General Manager
EDC, A-4A, Sector-24, Noida-201301 (U.P.)



1. Figures are in m³/d
2. Figures outside [ ] corresponds to average daily water demand.
3. Figures within [ ] corresponds to daily demand in peak season. [ ] values are indicated only when peak demand is different than average demand. Otherwise daily demand in peak season and average daily demand should be taken as equal.

Fig-11.1

Water Balance chart for PB West and East Quarry

(b) Water Balance chart for PB North West Quarry is given in **Fig-11.2**

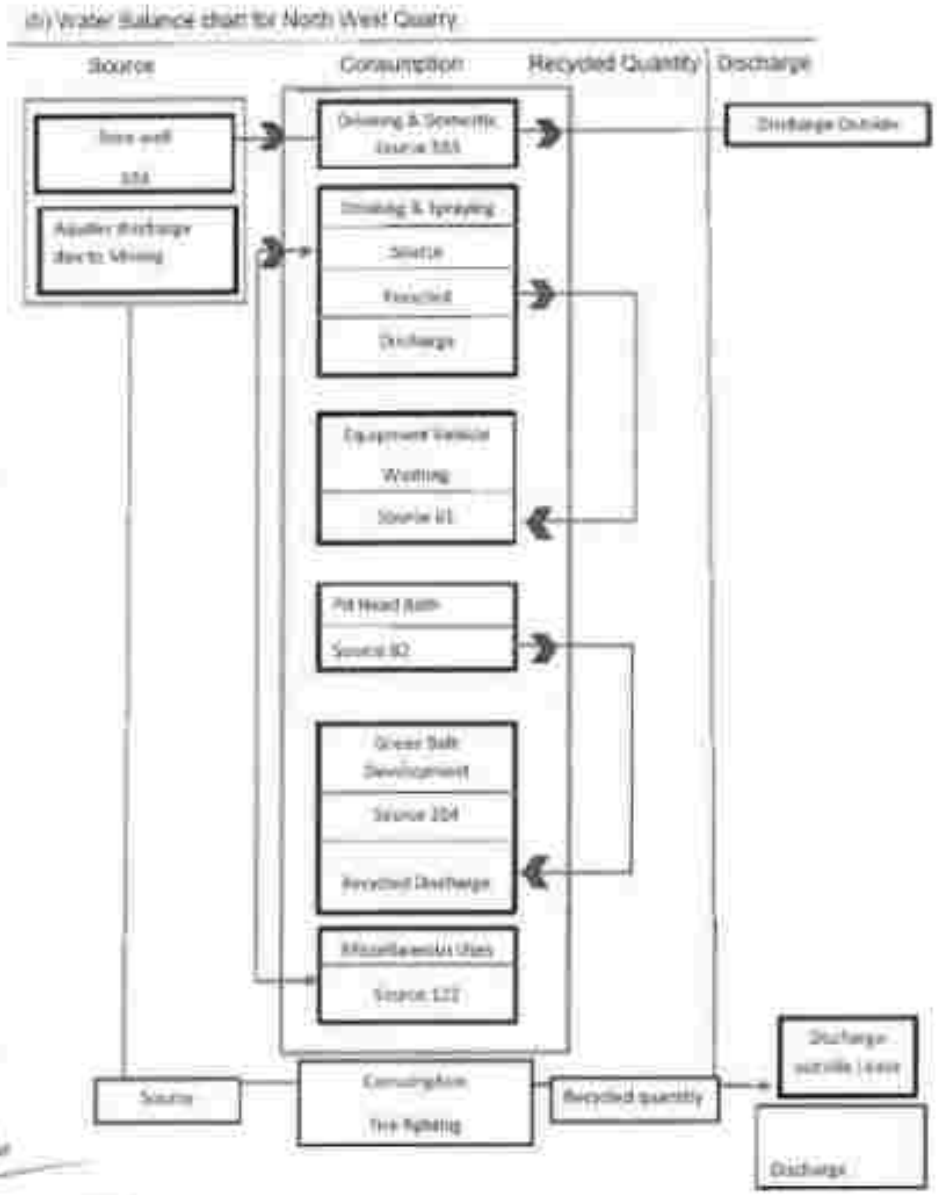


Fig-11.2

Water Balance chart for PB NW Quarry

11.2.7.9 Water Pollution Control Measures

A. **Measures to control erosion/sedimentation of water courses**

Continuous monitoring shall be done to remove overburden material and loose sediments from the working mine benches and excavation zone to avoid rolling of the same into the water course and thereby prevent the erosion and sedimentation. Retention wall shall be constructed around the dump to prevent rolling down of loose sediments. Settling pits shall be constructed at appropriate locations along the water channels to arrest sediments and clean water shall be allowed to flow into natural water course.

B. **Treatment and disposal of water from mine**

The water inside the mine pit is expected from the rain water during rainy season. Entire precipitation over the pit shall be channelized systematically into natural drainage. In order to ensure the discharge of clean water into the natural drainage, sedimentation ponds shall be made at suitable location to arrest the sludge. Accumulated sludge shall be scraped off time to time to maintain the proper mine water discharge. In order to monitor and subsequent management of water quality, monitoring stations shall be located near settling pit. Effluent treatment plant is envisaged for treatment of water discharge from workshop as well as domestic waste.

Garland drains around the quarry with settling tanks shall arrest suspended solid matter. Effluents from the workshop and the CHP shall be collected and treated before discharge.

C. **Measure to minimize adverse effects on water regime**

During the process of mine rehabilitation and with the completion of backfilling, a water body shall be created in the mined out pit which shall act as water reservoir improving the ground water recharge, source of attraction for fauna and shall help in the maintenance of afforested areas. To enhance aesthetic appearance, parks and lawns shall be made around the water body.

RQP No. 34011/(15)/2009-CPAM dated 27.09.10
Registered Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India
PAWAN DEV JAMTA
Deputy General Manager
EOC, A-6A, Sector-24, Noida-201301 (U.P.)

Selected water quality parameters of ground and surface water resources within 10 km radius of the study area have been studied for assessing the water environment and evaluate anticipated impact of the proposed project. Secondary data shows that water quality in ground water sources is within permissible limits.

11.2.7.10 Proposed Nallah Diversion / Construction of catchment canal

A. PB West and East Quarry:

The study area has dendritic pattern of drainage. Three different nallahs viz Khora/ Lathorwa (Western), Dumuhani (Central) and Pakwa (Eastern) Nallah traverse through the coal mining block. The **Table 11.15** below gives the particulars of three nallahs.

Table 11.15
Details of Nallah

Sl. No.	Name of the Nallah	Length of Nallah (km)	Catchment area (Sq. km)
1	Western	18.35	54.86
2	Central	-	25.64
3	Eastern	18.75	51.92

Central nallah originates at a small distance upstream of the northern boundary of the coal mining block and traverses towards south. The mining activity would be carried out in such a way that the catchment area of the central nallah shall go on reducing towards south. Water entering the central nallah from the upper catchment at the northern boundary of the coal mining block would be diverted through canals constructed along the boundary of the mining block to eastern and western nallah.

Precipitation falling within the mining block from the catchment area of central nallah would be pumped to the eastern and western nallah progressively. All the three nallahs rise in the hills on northern side of the coal mining block and flow towards south. The nallah pass through steep falls in the range of 5 to10 m spread over a length of about 600 to 800 m.

Investigations for locating the check dam on eastern and western nallahs have been carried out and six sites each on Khora Nallah and Pakwa

Nallah have been identified. Attempts were made to ensure that there is no change in the alignment and location of all three nallahs in coal mining block.

It is proposed to tap the discharge of central nallah at the northern boundary of the coal mining block and transfer flows to eastern and western nallahs through diversion canals to be constructed near the outer boundary of the mining block. The alignment is more or less along 460 m contour. The eastern arm of diversion canal would continue to traverse a distance of about 5100 m before reaching the outfall point in Pakwa Nallah. Similarly, western arm would flow for a length of about 800 m up to outfall in Khora Nallah. A fall structure with height of fall equal to difference in elevation of canal bed and nallah bed is to be provided at the end of canal alignment.

Catchment area of central nallah up stream of diversion canal is 7.6 sq. Km and maximum flood discharge component from this area was derived as 57.44 m3/s. Out of this flow only 90% is proposed to be diverted to eastern nallah i.e. 51.7 m3/s and remaining would be diverted to western nallah. Component of discharge from the catchment of eastern nallah that would get blocked due to diversion canal was estimated as 1.81 m3/s. Thus total discharge in eastern canal would be 53.51 m3/s and the design discharge for the eastern part of the diversion canal was computed as 58.86 m3/s.

Component of discharge from the catchment of western nallah was estimated as 1.5 m3/s. Thus total discharge in western canal would be 7.24 m3/s and by adding 10% to account for safety, the design discharge for the western arm of the diversion canal was computed as 7.94m3/s.

The diversion canal is required to be designed for the maximum discharge derived above and aligned along the north-eastern boundary of the mining block. As the canal is proposed in are mostly hilly area near reserve forest and the bed material consisting of boulders; maintenance of the canal would be difficult. So, an unlined canal is suggested. The details of a typical section of eastern arm of diversion canal derived for two different bed slopes are in **Table 11.16**

SANJIV KUMAR SINGH
Chartered Accountant
Membership Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

Table 11.16

Details of Eastern Arm of Diversion Canal

Design discharge (m^3/s)	60	60
Slope	1 in 1000	1 in 500
Bed width (m)	5	5
Side slope (m)	2 H to 1 V	2 H to1 V
Depth off low (m)	3.24	2.74
Manning's (n)	0.03	0.03
Velocity (m/s)	1.62	2.09
Freeboard (m)	1.5	1.5

The dimensions of western arm of diversion nallah were also derived on the similar lines of eastern arm.

B. PB North West Quarry:

The study area has dendritic pattern of drainage. Two different nallahs viz Khora A & B on the western and eastern sides traverse through the coal mining block.

Both nallah originates at a small distance upstream of the northern boundary of the coal mining block and traverses towards south. The mining activity would be carried out in such a way that the catchment area of the nallah shall go on reducing towards south.

Meandering part of Khora Nala – B of the western side of the block approximately 1 km in length is planned for straightening. Except this re-alignment rest part of nala shall not be disturbed. An embankment suitably sloped both sides shall be constructed to prevent in-rush during rainy season and flash flood. A road of 5m wide shall run all alongside the embankment.

After 25th year of mine operation, Khora Nala – A is envisaged to be diverted on the back filled area of PB. A separate study for diversion shall be conducted at appropriate time and recommendation after approval

from relevant competent authority shall be implemented. This shall help in releasing approximately 32Mt of coal in the barrier and batter of PB – A and PB (west) mines.

11.2.7.11 Impact on villagers due to Nala diversion

Three nalas viz. western nala (Khora/Lathorwa), central nala (Dumuhani) and eastern nala (Pakwa) traverse through Pakri Barwadih coal mining block and outfall into Haharo River one Km south of lease area, near Barkagaon village. The eastern and western nalas originate upstream of the coal mining boundary on north side. It is proposed to divert flow of the central nala outside the boundary through canals constructed along the boundary of the Western Quarry of the mining block to eastern and western nala. Since the water flow in the central nala shall outfall into Haharo River through canals at same point where it was joining that before diversion. Hence there shall be no effect of diversion downstream the lease area. The lease area shall also be evacuated for mining operations. Hence there shall also be no effect on villagers living in the lease area.

11.2.8 Air Quality Management

There shall be constant monitoring of air quality to keep within the prescribed norms. Dust pollutants are generated during blasting and while operating diesel equipment and these shall be kept at minimum levels by ensuring good blast design and good equipment maintenance. Dust suppression system and dust extraction System shall be in operative. Plantation around the quarry and CHP shall put up a green belt for mitigating air pollution.

11.2.8.1 Existing air quality status

To quantify the impact of the proposed mining and allied activities on the ambient air quality, it is necessary at first to evaluate the existing ambient air quality of the core and the buffer zones. The existing ambient air quality, in terms of Suspended Particulate Matter (SPM), Respirable Particulate Matter (RPM), Sulphur-dioxide (SO2), Oxides of Nitrogen (NOx), Carbon Monoxide (CO), Lead (Pb) and Dust fall has been measured through a planned field monitoring.

To assess the ambient air quality level, 15 (fifteen) monitoring stations (includes 4 from core zone) were set up to a maximum distance of 10.0 km from core zone limit (Buffer Zone). **Table 11.17** gives summarised ambient air quality results.

The results when compared with National Ambient Air Quality Standards (NAAQS) of Central Pollution Control Board (CPCB) for "Residential and Rural Areas" shows that the ambient air quality is within the stipulated limit except with respect to SPM at a number of stations. Dust blowing from the unpaved roads and dry agricultural fields account for the high SPM levels.

Dust fall rates were recorded as 30 days average during monitoring periods at twelve

(12) AAQ monitoring stations. The results are given in **Table 11.18**.

In absence of Indian Norms, the results have been compared with the German norm published in TA Luft, 1986 which is as follows:

98 percentile value : 0.65 $g/m^2/d$

The above results indicate that the dust fall rates at all the stations, except at Pundaul and are within the compared German standards.

SANJIV KUMAR SINGH
Enterprises Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जमुआ/PAWAN DEV JAMTA
Dep. General Manager (Plan Revision)
ECC, A-84, Sector-24, Noida-201301 (U.P.)

Table 11.17 - Summarized Ambient Air Quality Results

Parameters		SP			RP			SO			NOx			CO			Lead		
Permissible AAQ standard(CPB		200			100			80			80			0.4			1.00		
		500			150			120			120			0.4			1.50		
		150			75			30			30			0.4			0.75		
Monitoring Location	Category *	Min.	Max	Arth. Mea	Min.	Max	Arth. Mea	Min.	Max	Arth. Mea	Min.	Max	Arth. Mea	Min.	Max.	Arth. Mea	Min.	Max.	Arth. Mean
Barkagaon	R	142	318	251.9	64	147	108.5	<10	10.6	<10	21.4	37.8	30.7	<0.00	<0.00	<0.00	0.051	0.042	0.047
Sinduari	R	139	340	254.9	59	131	104	<10	11.2	<10	41.9	88.8	31.7	<0.00	<0.00	<0.00	0.013	<0.003	0.007
Pundaul	R	146	349	260.6	63	139	104.8	<10	10.3	<10	20.6	38.2	30.2	<0.00	<0.00	<0.00	<0.00	<0.003	<0.003
Sirma	R	175	184	179.3	62	85	79	<10	<10	<10	19.5	34.8	25.8	<0.00	<0.00	<0.00	<0.00	<0.003	<0.003
Hesabar	R	104	201	252.5	45	78	61.5	<10	<10	<10	15.0	23.6	20.1	<0.00	<0.00	<0.00	<0.00	<0.003	<0.003
Kandabar	R	155	387	281.4	62	172	119.4	<10	11.3	<10	16.0	38.5	23.5	<0.00	<0.00	<0.00	<0.00	<0.003	<0.003
Rajhar	R	116	204	176.5	49	92	69.1	<10	<10	<10	14.3	27.3	21.5	<0.00	<0.00	<0.00	0.034	0.022	0.028
Gamiklan	R	172	398	314.5	80	180	103.4	<10	12.8	<10	24.0	52.9	40.0	<0.00	<0.00	<0.00	<0.00	<0.003	<0.003
Sikri	R	114	314	224.9	45	129	89.8	<10	<10	<10	15.7	38.4	25.6	<0.00	<0.00	<0.00	<0.00	<0.003	<0.003
Kanrtari	R	152	373	271.5	70	155	112.3	<10	<10	<10	161.0	35.9	24.4	<0.00	<0.00	<0.00	<0.00	<0.003	<0.003
Bisarmpur	R	142	417	306.3	68	182	124.6	<10	13.4	<10	25.5	56.5	28.8	<0.00	<0.00	<0.00	<0.00	<0.003	<0.003
Badam	R	158	405	256.3	57	197	111.6	<10	<10	<10	16.1	32.7	27.4	<0.00	<0.00	<0.00	<0.00	<0.003	<0.003
Sukulkhapi	R	112	314	200.5	50	124	84.3	<10	<10	<10	15.7	31.5	24.0	<0.00	<0.00	<0.00	<0.00	<0.003	<0.003
Deunakhur	R	268	346	296.5	101	133	119.5	<10	<10	<10	21.5	27.7	24.9	<0.00	<0.00	<0.00	<0.00	<0.003	<0.003
Upardri	R	118	351	213.3	54	162	99.3	<10	<10	<10	17.6	32.5	24.6	<0.00	<0.00	<0.00	<0.00	<0.003	<0.003

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10.

Table 11.18
Measurement of Dust fall Rate

Station Location	Station No.	Results($g/m^2/d$)
Barkagaon	A1	0.468
Sinduari	A2	0.590
Pundaul	A3	1.528
Sirma	A4	0.185
Kandabar	A5	0.576
Rajhar	A6	0.128
Garrikalan	A7	2.415
Sikri	A8	0.238
Kanrtari	A9	0.424
Bisrampur	A10	0.511
Badam	A11	0.382
Deuriakhurd	A12	0.476

11.2.8.2 Impact on Air Quality due to Mining

A. Construction Phase

Impacts of construction activities on air quality are cause for concern mainly in the dry months due to dust particles. The main sources of emission during the construction period are the movement of equipment at site and dust emitted during the levelling, grading, earthworks, foundation works and other construction related activities. The dust emitted during the above mentioned activities depend upon the type of soil being excavated. The dust generated during the construction activities shall however, settle quickly. Therefore, the impact shall be for short duration and confined locally to the construction site. The composition of dust in this kind of operation is, however, mostly inorganic and non-toxic in nature.

Exhaust emissions from vehicles and equipment deployed during the construction phase is also likely to result in marginal increase in the levels of SO2, NOx, SPM, CO and unburnt hydrocarbons. It may, therefore, be deduced that construction activities may cause changes in the SPM levels locally. The impact shall, however, be reversible, marginal, and temporary in nature.

The impact of such activities would be temporary and restricted to the

SANJAY KUMAR SINGH
Principal Qualified Person
Reg. No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India
PAWAN DEV JAMTA
Dep. Ch. Geologist Manager (Commercial)
NTPC LIMITED
Noida-201301 (U.P.)

construction phase. The impact shall be confined within the project boundary and is expected to be negligible outside the ML boundaries. Proper upkeep and maintenance of vehicles, sprinkling of water on roads and construction site, providing sufficient vegetation etc. are some of the measures that would greatly reduce the impacts during the construction phase.

B. Operation Phase

The main activities, which generally contribute to air pollution in mining industry, are:

- Drilling and blasting
- Excavation and loading
- Transportation
- Crushing at CHP

The excavation / loading of the OB/coal shall be done by hydraulic shovels. The transportation of OB and coal shall be carried out in the same way as is generally done in OC mining i.e. by dumpers. Dust generation by this is anticipated. Coal crushing at CHP shall also generate dust.

The opencast mining operations are generally prone to generation of high levels of SPM and to a limited extent SO2, NOx and CO due to fossil fuel based vehicles, machines and blasting using explosive and fuel combustion etc. Air pollution due to SO2, NOx and SPM may result in irritation and inflammation of eyes and congestion of throat and oedema of lungs. Carbon monoxide can cause loss of hemoglobin in blood and subsequently stresses on those suffering from Cardio-Vascular and pulmonary diseases. High level of CO in the air is dangerous and may be fatal.

11.2.8.3 Air pollution mitigation measures

In the proposed lease area, the existing air quality is within the norms as specified by the National Ambient Air Quality Standards (NAAQS). Fugitive dust shall be generated in open cast mine due to drilling, blasting, handling of overburden & coal. To control dust from various operations following measures will be resorted to.

- Drilling area will be wetted prior to drilling
- Water will be sprayed during loading/unloading of OB and ore

- Periodical water spraying will be done on haul road, overburden dump & stacks of coal
- Trees will be planted on road side.
- Dumps will be stabilized by planting grass/trees

It has been proposed that all mining and ore processing equipment will have dust extraction and separation attachment to minimize air pollution. In order to monitor and subsequent management of air quality, monitoring stations will be located near dust generating areas such as haul road, OB dump, coal handling plant etc.

11.2.8.4 Measures to control noise pollution

The following control measures shall be adopted to keep the ambient noise levels below permissible limits:

i. Provision of protective devices like ear muffs/ear plugs to those workers who cannot be isolated from the source of noise.
ii. Confining the noise by isolating the source of noise
iii. Reducing the exposure time of workers to the higher noise levels

Precautions shall be taken as per conditions imposed by MoEF or other statutory bodies.

11.2.8.5 Measures to reduce ground vibrations due to blasting and prevent fly rocks

The vibrations due to blasting shall be studied before the commencement of mining operations and the recommendations/suggestion given as per the result of the said study shall be strictly adhered to especially the charge per delay.

11.2.9 Waste management

11.2.9.1 Type of Rocks

The block is mostly covered with Barakar formation. This formation constitutes fine to coarse grained, white to grey feldspathic, micaceous sandstone, shale, fire clay and carbonaceous shale with economic coal horizons. The Karharbari formation is noticed towards the east of Pakri Barwadih Coal Block. The rocks are mostly coarse to gritty, carbonaceous sandstone pebbly at places with unaltered fresh pink feldspar and quartz pieces. Few very thin carbonaceous shale and coal bands are also intersected in some boreholes. The Barren Measures which is characterized by fine grained sandstone, shale and sandy

shale is noticed towards the north-west part of the block and Sector –A . The block is free from any igneous intrusions.

As per the geological report, no major, minor and trace elemental analysis of different rock types was available. The chemical analysis of coal indicates presence of nontoxic minerals. The sandstones of Barakar Formation constitute major part of area forms a principal aquifer. The chemical analysis of ground water shows the trace element like Cu, Mn, Hg, Cd, Se, As, Pb, Zn, Cr, Al and B are present below deduction limit.

The ground water quality indirectly infers the source rocks characters hence, the rock of Pakri-Barwadih Coal block contains no toxic elements.

11.2.9.2 Removal of Overburden

For PB West and East Quarry Proposed quarries namely PB West and PB East are to be opened in Barakar formations, which consist of alluvium soil, sandstone and shale. The thickness of soil/weathered mantle generally varies from 6-18 m. It is commonly dirty-white to reddish-brown in colour and carbonaceous shale generally constitutes bulk of inseam burden.

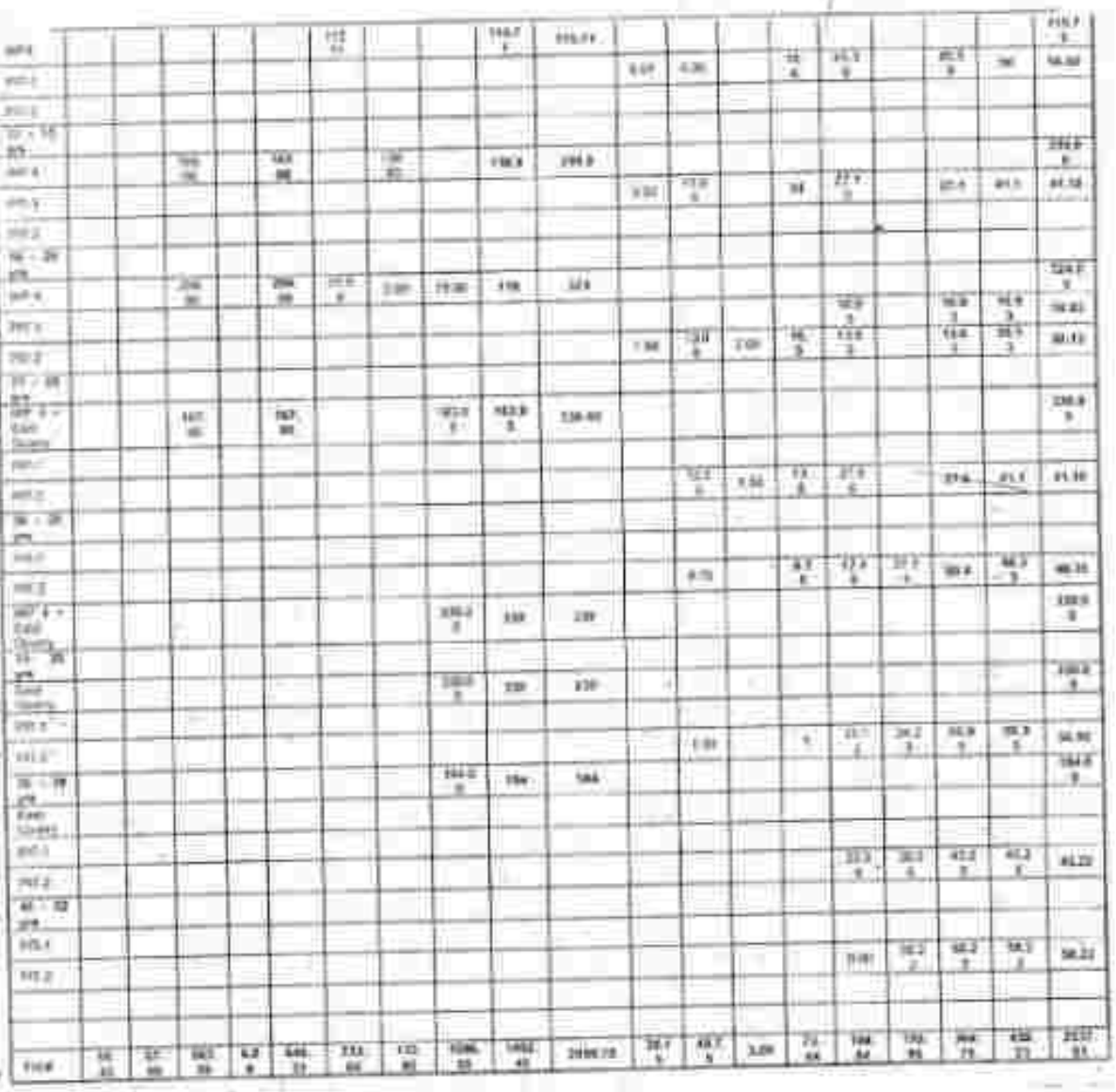
OB removal and its phasing from Pakri Barwadih is detailed **Chapter 5 "Mining"**, yearwise dumping schedule of overburden in internal and external dumps are given in **Table-11.19**.

Table-11.19

Schedule of Overburden Dumping

[illegible]	PB WEST AND EAST										PB NW								(in Mm³) PB GRAND TOTAL
	External Dump (Solid)					Internal Dump (Solid)					External				Internal				
	A	B	C	D	SUB TOTAL	A (Ext n)	B (Ext n)	[illegible]	SUB TOTAL	Total (Rounded off)	OU MP 'A'	OU MP 'B'	OU MP 'C'	Sub Total	OU MP 'A' Exist	[illegible]	Sub Total	Total (NW)	(Rounded off)
[illegible]																			
[illegible]	[illegible]	[illegible]			[illegible]					[illegible]									[illegible]
[illegible]		[illegible]			[illegible]					[illegible]									[illegible]
[illegible]		[illegible]	[illegible]		[illegible]					[illegible]									[illegible]
[illegible]		[illegible]			[illegible]					[illegible]									[illegible]
[illegible]				[illegible]	[illegible]					[illegible]									[illegible]
[illegible]											[illegible]			[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]																			
[illegible]																			
[illegible]						[illegible]			[illegible]	[illegible]									[illegible]
[illegible]		[illegible]			[illegible]	[illegible]			[illegible]	[illegible]									[illegible]
[illegible]						[illegible]			[illegible]	[illegible]									[illegible]

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2005-CPAM
Ministry of Coal, Govt. of India
PAWAN DEV JAMTHI



Final stage dump plan, as well as other stage plans also show the location of external/internal dumps in respective stage plans including height as well as volume of dump

11.2.9.3 Types of Solid Waste

Four types of solid waste are likely to be generated through mining activities. These are:

a) Overburden (both topsoil and waste)
b) Sludge from washing HEMM

c) Sludge created by mine water in settling pond.
d) Municipal solid waste

Protective measures

The dump shall be stabilized and afforested. The top soil shall be used for spreading over backfilled area and over OB dump for plantation. The area of top soil stack shall be afforested.

The area of ground disturbance shall be minimized by progressively rehabilitating disturbed land.

Reclamation of land shall be carried out by landscaping, re-vegetation etc. As far as possible the reclamation activities shall be taken up concurrently with the mining operations. For re-vegetation, the native plants and saplings suitable for the existing soils and site conditions shall be considered.

A. Steps to be taken to avoid Dump Slides

- Dumping of top soil shall be avoided at the bottom of the dump as it leads to instability. Dumping of soil and clayey material shall be done away from the working area that is on farther end of the dump so that formation of weak planes is avoided.
- Afforestation by planting trees shall helped a lot in improving stability of dumps by preventing erosion.
- Construction of retaining walls
- Construction of drains for drainage
- Provision of jute mesh for facilitating grass or vegetative growth on slopes
- Provision of good soil mixed with manure and subsequent irrigation for growth of grass for anchorage on slopes. Plantation mixed with indigenous and fast growing plant species.
- The degraded area shall be reclaimed and rehabilitated with local species of plantation in a phased manner.
- Plantation shall be carried out on waste dumps.
- A belt of trees with thick canopy shall be created along the mine boundary to intercept dust, gaseous pollutants and noise.

The void area of the excavated pit shall ultimately become a water reservoir. The depth of the void shall be reduced in the post mining stage by filling it with waste. This void area shall also be suitably sloped, bunded and fenced.

SANJIV KUMAR SINGH
Designation: Outside Person
Mob. 8210182925-CPAM
Govt. of India
Ministry of Coal
(Signature not verified)
Digitally signed by SANJIV KUMAR SINGH
Date: 2010.09.27 17:00:00 IST
Reason: Approved
Location: Coal India Limited
DIRECTOR (PERSONNEL)
DIRECTOR/PAWAN DEV JAMTA
Deputy General Manager (Environment)
Deputy General Manager / NTPC LIMITED
A-8A, Sector-24, Noida-201301 (U.P.)

B. **Management of Sludge**

- **Management of Sludge from Oil/Water separator**

  Effluent from workshops, vehicle washing etc. shall be passed through impermeable drains and shall be treated in the oil/water separator. The treated effluent will be re-circulated in the workshop.

- **Management of Sludge created by mine water in settling pond**

  Sludge from the mine water settling pond shall be removed periodically and shall be backfilled along with the OB.

- **Sludge from domestic waste**

  Sludge from the domestic waste shall be utilized as manure for the plantation in the mine lease area and on dump.

- **Management of Municipal solid waste**

  The municipal solid waste e.g. from canteen, etc. shall be composted and used as manure for plantation along with the domestic sludge.

11.2.9.4 Topsoil management

A. **For PB-WEST and EAST Quarry** during Operating life of mine 5.81 Mm^3 of top soil shall be generated. This figure is arrived at by considering 1 m (approx.) thickness of top soil, as because unlike PB-NW Quarry considerable deposition has not taken place in the block.

For the initial 5 years of Mining operation, top soil shall be stacked at a designated location over coal bearing area, as shown in **Surface Master Plan**. Estimated land requirement for stacking is 1 Ha. The requirement of land shall cease to operate from 10th year onwards as because scrapped top soil shall be spread over the dump for land reclamation.

Stacking of top soil shall be achieved in two tiers. The bottom tier shall be of 3m in height while top tier shall be of 2m or shall below height not exceeding the limit as per prescribed norms.

Stack of top soil shall be grassed to retain fertility if required. Besides this, top soil stack them shall be made use of concurrent filling without bringing the scrapped top soil to the stack.

B. **For PB-NW Quarry** during Operating life of mine 5.81 Mm^3 of top soil shall be

SANJAY KUMAR SINGH
Recognised Qualified Person
Ref. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India
PAWAN DEV JAMTA
Chief General Manager (Commercial)
NTPC LIMITED
Sector-24, Noida-201301 (U.P.)

generated. This figure is arrived at by considering 1.5m (approx.) thickness of top soil, as because presence of ravines and surrounding nalas considerable deposition has taken place in the block.

For the initial 5 years of Mining operation, top soil shall be stacked at a designated location over Pit – 2, as shown in **Plate No.4**. Estimated land requirement for stacking is 1 Ha. The requirement of land shall cease to operate from 10th year onwards as because scrapped top soil shall be spread over the dump for land reclamation.

Stacking of top soil shall be achieved in two tiers. The bottom tier shall be of 3m in height while top tier shall be of 2m or shall below height not exceeding the limit as per prescribed norms.

C. **Top Soil Scrapping:** Scrappers shall be deployed to scrap the top soil off the surface. With the help of front end loader, top soil shall be loaded on the tripper of 10T capacity and transported to top soil stock yard. In the event of non-stacking system, top soil shall be transported directly to the desired location.

D. **Top Soil Spreading:** Front end loader shall load on to the trippers and transported to desired location and spread with the help of dozer/graders.

Stack of top soil shall be grassed to retain fertility if required. Besides this, top soil stack them shall be made use of concurrent filling without bringing the scrapped top soil to the stack. Year wise quantity schedule of management of top soil excavated and spread and summerised data for Top Soil Management is given in **Chapter 5 "Mining"**.

11.2.10 Management of Coal rejects from Washery

Not applicable

11.2.11 Decommissioning of Infrastructure

The infrastructure consists of substation, CHP, Workshops, Mine office, blasting shelters, rest shelters etc. The mine office & related infrastructure shall be handed over to state govt. for public use. The probable list of facilities which shall be dismantled and those which shall be retained has been furnished in **Table 11.20**

SANJIV KUMAR SINGH
Recognised Qualified Person
Regn. 34011(15)/2009-CPAM
Ministry of Coal, Govt. of India

Table 11.20

List of facilities to be dismantled or retained at the end of Life of PB Coal Block

Sl.No.	Facilities	Remarks(Dismantled/Retained)
1	Service buildings/Infrastructure	
a	Project/Mine Office	To be retained.
b	Workshop	Dismantled
c	Store	Dismantled
d	Canteen	To be retained.
e	First aid center	To be retained.
f	Rest shelter	To be retained.
g	Training Centre	To be retained.
h	Firefighting station	To be retained.
i	Pit head bath	Dismantled
j	Magazines	Dismantled.
k	Environmental laboratory	To be retained.
l	Dispensary	To be retained.
2	Mining Machinery	i) Usable: - to be moved to any other units. ii) Non-usable:- auctioned.
3	Pumps used in mines	Dismantled.
4	Electrical/mechanical equipment used in workshop or other places	Dismantled.
5	CHP, conveyors and railway siding	Dismantled.
6	Sub-station	Dismantled
7	Furniture	To be retained.
8	Approach road and Culverts	To be retained.
9	Haul road and Culverts	Restricted Entry.
10	Water supply arrangement	To be retained.
11	Permanent Manpower	To be transferred to any other projects of NTPC or options for VRS or as per company's existing policy.
	Corpus fund for maintenance	**Provision has been made in fund requirements as provided**

11.2.12 Disposal of Mining Machinery

Nearly all the mining machinery shall be moved to other units of the owner. Only the scraps and non-usable machines, if any, shall be auctioned.

11.2.13 Safety & Security

a. Closure of Mine Entries

After closure of the mining activities, all the entries to the mine shall be effectively sealed off to avoid any accident and to prevent access to any unauthorized person. Underground worksites with surface openings, shall be effectively sealed.
The area that is not reclaimed shall be properly fenced and/ sealed to prevent any unauthorized entry into the area.

Security Personnel shall be detained for a period of three years after mine closure for protecting new plantations in the reclamation area and look after the protective fence around the boundary of the mine to prevent any stray animal/man entering the area.

b. Disaster Management and Risk Assessment

Provisions under coal mines regulation and rules made there under and different circulars of DGMS shall be strictly followed. Safety training shall be imparted in the vocational training center to the workers for protection against landslide/fall, moving equipment and precautions during blasting, electrical shock protection and accidental fire.

c. Care and Maintenance during temporary discontinuation

During such period round the clock security guard shall be provided to prevent stray animal or persons entering mining area. Temporary fencing with proper signage about danger shall be erected.

11.2.14 Economic Repercussions of Closure of Mine

The mine shall be one of the highly mechanized open cast mines and shall require services of highly skilled and semi-skilled work force.

As far as possible local population shall be given employment in semi-skilled and unskilled category.

In lieu of employment, an annuity of around Rs. 36,000 per acre per annum for 30 years for those losing one acre or more land which is to be escalated by Rs. 1000 every two years (limited to maximum for 5 acres) and those losing land less than 1 acre then annuity of around Rs. 30,000 per annum for 30 years which is

to be escalated by Rs. 750 every two years is proposed. This shall help the annuitants residing in the peripheral area of coal block to make them self-sustainable after the closure of the mine.

Persons engaged in satellite occupations connected to mining industry shall have access/ market in other industries of the mine owner. They shall be given preference or they shall have to opt for other related engagement similar to their occupation.

After closure of mining operations, local residents employed in the mine may be offered jobs elsewhere in the running projects of NTPC.
To mitigate any hardship, the following things are being done or shall be done

1. R&R plan pertaining to NTPC mining projects in Jharkhand has already been prepared in consultation and participation of stakeholders which is in line with the state R&R policy. This include among others provisions and activities pertaining to preference in employment subject to suitability and availability, vocational / self-employment opportunities, education, health, skill development and training programs for various focused groups.

2. In addition to the preference in direct and indirect gainful employment opportunities to affected families / locals through contracting agencies etc. and otherwise subject to suitability and availability, NTPC has committed to build a Greenfield ITI in the vicinity of these mining projects of Jharkhand for capacity building, skill development which shall also result in improving the employability of the affected families / locals.

3. Skill of the unskilled workers shall be developed through structured programme to the extent possible so that they can be absorbed in other units or they can follow some self-employment.

4. Employees who would be retrenched would get adequate compensation as per existing labour laws/ golden hand sack / VRS or any other scheme of the Company prevailing at the time of mine closure.

NTPC would endeavour for harmonious relations with PAPs, not only during mining operation but there after also. But it would be prudent to develop their own ability to sustain their present life standard after the closure of the mine by self-employment. NTPC would like continuance of the social welfare amenities created for the employees and PAPs and try to meet the expectation of the society under the given financial constraints. The persons shall be imparted lectures on the financial mechanism for its sustenance after the mine closure.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जामटा/PAWAN DEV JAMTA
Deputy General Manager
NTPC LIMITED
Sector-24, Noida-201301 (U.P.)

11.3 Time Scheduling for Abandonment

Tentative details of likely closing activities with manpower requirement as envisaged below has been estimated based on the present mine closure plan. Actual closing activities and manpower requirement may change during the preparation of Final Mine Closure Plan which shall be prepared 5 years before the likely cessation of mining operation. A time schedule for abandonment along with tentative manpower requirement has been shown in the bar chart given in **Table 11.21.**

Table 11.21

Manpower Requirement for Closure Activities

Sl. No	Activities to be undertaken	Manpower of NTPC	P-9	P-11	P-16	P-21	P-26	P-31	P-36	P-41	P-46	P-51	P-52	P-53	P-54	P-55
1	**Mined Area & Waste Management**															
1.1	Plantation along the block boundary, embankment, approach road, CHP Cross country conveyor, Railway siding etc and around the mine infrastructure area	Outsourced (under the														
1.2	Physical reclamation of internal and external dump (Leveling, Spreading of top soil, toe wall formation, drain etc.)	supervision of NTPC) Environmental Engr-1, Surveyor-2, Chairman-4														
1.3	Physical reclamation of land of batter and haul road															
1.4	Bio reclamation of above items															
1.5	Making safe approach up to															

Chapter -XI Mine Closure Plan

RQP No. 34011/(15)/2009-CPAM dated 27.09.10

Page XI - 52

576

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जामटा/PAWAN DEV JAMTA

Sl. No	Activities to be undertaken	Manpower of NTPC	P-6	P-11	P-16	P-21	P-26	P-31	P-36	P-41	P-46	P-51	P-52	P-53	P-54	P-55
	the water lagoon for future uses															
1.6	Barbed wire fencing as per requirement															
2	**Environmental Management (Air, Water, Waste, Noise etc.)**															
2.1	Thorough inspection of external and stabilized internal dumps to find state of its stabilization & Bio- reclamation.	Supervisors-2 in each shift, Environmental Engineer-1 in each shift														
2.2	Action to stabilize & vegetate uncovered patches, if any	Job Outsourced														
2.3	Inspection of garland drains & bunds around external dumps to prevent leachatte water from entering natural water courses directly	Supervisors-2 in each shift, Mining Engineer-1 in each shift														
2.4	Inspection of embankment to prevent entry of uncontrolled water to mine	Supervisors-2 in each shift, Engineer-1 in each shift														
2.5	Strengthening of embankment															
2.6	Quarterly sampling of water to know its quality status	Lab Assistant-1, Helper-1														
2.7	Record keeping, monitoring and reporting	Surveyor-1 Chainman-3														
3	**Management of Infrastructure & Mining Machineries**															

SANJIV KUMAR SI...
Recognised Qualified P...
No. 34011/(15)/2009-C...
Ministry of Coal, Govt. of ...

पवन देव जायसवाल/PAWAN DEV JAIMAL
Dep... General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Sl. No.	Activities to be undertaken	Manpower of NTPC	P-6	P-11	P-16	P-21	P-26	P-31	P-36	P-41	P-46	P-51	P-52	P-53	P-54	P-55
3.1	Decommissioning of structures & semi- permanent constructions	Job Outsourced Civil Engineer-1, Supervisor-1, Surveyor-1, Chainman-2														
3.2	Renovation of Mine/Project office, Canteen, Training Centre, Rest shelter etc.															
3.3	Cleaning of land for vegetation over the area															
3.4	Dismantling of machineries															
4	**Actions for safety & security of local community due to abandonment of the mine or part of the mine**															
4.1	Regular inspection of the mined out area, O.B. dumps for assessing the closure job	Supervisors-2 in each shift, Mining Engineer-1 in each shift														
4.2	Action, if required, for making safe, the drainage areas, fire areas etc.															
4.3	Making 2 metre high pucca wall on the slope of internal dumps, along the estimated water level	Supervisor-1 in each shift, Civil Engineer-1 in each shift														
4.4	Making 2 meter high pucca wall around the top edge of the mined out area, where immediate void exists at the quarry edge															
4.5	Making 2 meter high pucca wall															

Chapter -XI Mine Closure Plan

RQP No. 34011/(15)/2009-CPAM dated 27.09.10

Page XI - 64

677

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जगत/PAWAN DEV JAMTA
Dept. of Civil Engineering
NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Sl. No.	Activities to be undertaken	Manpower of NTPC	P-6	P-11	P-16	P-21	P-26	P-31	P-36	P-41	P-46	P-51	P-52	P-53	P-54	P-55
	around the external OB Dump															
4.6	Closing with walling and gates in the haul road, to prevent advertant entry into water lagoon.	Supervisor-1 in each shift														
4.7	Filling the haul road up to ground level, from surface up to sealing gate.															
4.8	Survey of the total project area for updating mine plans Under Coal Mine Regulation.	Supervisors-2 in each shift, Mining Engineer-1 in each shift														
5	**Social & Economic Aspects**															
5.1	C.S.R activities.	Engineer-1, HR executive/ staff-2														
6	**Execution & Supervisor**															
6.1	Purchasing/Hiring of equipment for closure activities etc.															
6.2	Execution & Supervision of the activities by mining personal.	Mining Engineer-1, HR executive/ staff-2														
7	**Miscellaneous charges including power cost, deployment of security personal, 3 years post closure environmental monitoring, supervision, power cost etc.**	Engineer-2, HR executive/ staff-3														
8	**Underground Mining**															

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

Chapter -XI Mine Closure Plan

RQP No. 34011/(15)/2009-CPAM dated 27.09.10

Page XI - 56

578

Sl. No	Activities to be undertaken	Manpower of NTPC	P-6	P-11	P-16	P-21	P-26	P-31	P-36	P-41	P-46	P-51	P-52	P-53	P-54	P-55
8.1	Sealing of Mine entries for UG mine															
8.2	Isolation stopping, if required															
8.3	Withdrawal of machinery etc															
8.4	Subsidence Management															
8.5	Post closure Subsidence Monitoring															
8.6	Miscellaneous charges including power cost, supervision etc															

Other manpower shall be deployed or, outsourced as per actual requirement.

11.4 Abandonment Cost

Tentative cost of likely closing activities as envisaged below has been estimated considering base date as December 2015 at current cost. Actual closing activities and activity wise costs may change during the preparation of Final Mine Closure Plan which shall be prepared before the likely cessation of mining operation. A time schedule for abandonment including post 3 years of likely cessation of mining operation along with tentative fund requirement has been shown in the bar chart given at **Table 11.22**.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

NTPC LIMITED
EDC, A-8A, Sector 24, Noida-201301 (U.P.)

Table-11.22

Provision for Expenditure for Mine Closure of Pakri Barwadih Coal Mining Block

(Amount in Rs. Crore)

S. No.	Activities to be undertaken	P-6	P-11	P-16	P-21	P-26	P-31	P-36	P-41	P-46	P-51	P-55	Cost
1	**Mined Area & Waste Management**												
1.1	Plantation along the block boundary, embankment, approach road, CHP Cross country conveyor, Railway siding etc and around the mine infrastructure area												
1.2	Physical reclamation of internal and external dump (Leveling, Spreading of top soil, toe wall formation, drain etc.)												
1.3	Physical reclamation of land of batter and haul road												
1.4	Bio reclamation of above items												
1.5	Making safe approach up to the water lagoon for future uses												
1.6	Barbed wire fencing as per requirement												

SANJIV KUMAR SINGH

2	**Environmental Management (Air, Water, Waste, Noise etc.)**	2.87	6.12	10.13	25.62	28.65	25.21	43.16	23.89	21.81	21.81	45.97	291.14
2.1	Thorough inspection of external and stabilized internal dumps to find state of its stabilization & Bio- reclamation.	0.00	1.02	1.65	2.47	1.65	2.43	2.54	2.05	2.08	4.12	8.44	28.42
2.2	Action to stabilize & vegetate uncovered patches, if any	0.00	2.04	3.30	4.94	3.37	4.87	5.08	4.00	4.15	8.23	12.87	52.85
2.3	Inspection of garland drains & bunds around external dumps to prevent leachatte water from entering natural water courses directly	0.00	2.04	3.30	4.94	3.37	4.87	5.08	4.00	4.15	8.23	12.87	52.85
2.4	Inspection of embankment to prevent entry of uncontrolled water to mine	0.00	0.00	0.00	7.41	0.00	7.30	7.62	8.00	0.00	0.00	0.00	33.38
2.5	Strengthening of embankment	0.00	0.00	0.00	7.41	0.00	7.30	7.62	8.00	0.00	0.00	0.00	33.38
2.6	Quarterly sampling of water to know its quality status	0.00	0.00	8.34	0.00	8.43	0.00	12.88	0.00	10.38	0.00	30.18	77.83
2.7	Record keeping, monitoring and reporting	2.87	1.02	1.65	2.47	1.65	2.43	2.54	2.05	1.04	1.03	1.81	20.34
3	**Management of Infrastructure & Mining Machineries**	0.00	10.20	0.00	0.00	18.55	24.74	25.39	39.89	41.54	41.18	84.36	284.85
3.1	Decommissioning of structurals & semi-permanent constructions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.77	41.18	84.36	106.29
3.2	Renovation of	0.00	5.10	0.00	0.00	8.43	0.00	0.00	10.20	0.00	0.00	0.00	23.52

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10.

पवन देव जायसा / PAWAN DEV JAMTA
Dept. of General Management
NTPC LIMITED
SDC, A-8A, Sector-24, Noida-201301 (U.P.)

	Mine/Project office, Canteen, Training Centre, Rest shelter etc.												
3.3	Cleaning of land for vegetation over the area												
3.4	Dismantling of machineries												
4	**Actions for safety & security of local community due to abandonment of the mine or part of the mine**												
4.1	Regular inspection of the mined out area, O.B. dumps for assessing the closure job.												
4.2	Action, if required, for making safe, the drainage areas, fire areas etc.												
4.3	Making 2 metre high pucca wall on the slope of internal dumps, along the estimated water level.												
4.4	Making 2 meter high pucca wall around the top edge of the mined out area, where immediate void exists at the quarry edge.												
4.5	Making 2 meter high pucca wall around the external OB Dump												

SANJIV KUMAR SINGH

4.6	Closing with walling and gates in the haul road, to prevent inadvertant entry into water lagoon.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.00	27.00
4.7	Filling the haul road up to ground level, from surface up to sealing gate.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	16.00	26.14
4.8	Survey of the total project area for updating mine plans Under Coal Mine Regulation.	0.72	0.61	0.62	1.22	0.44	1.22	1.27	1.00	1.04	2.96	0.00	10.71
5	**Social & Economic Aspects**	0.17	0.59	0.24	0.00	0.43	0.00	12.99	10.00	10.39	0.00	0.00	62.01
5.1	C.S.R activities.	0.17	0.59	0.24	0.00	0.43	0.00	12.99	10.00	10.39	0.00	0.00	62.01
6	**Execution & Supervisor**	0.00	0.00	0.00	0.00	0.00	12.17	0.00	10.00	10.38	20.37	14.38	88.33
6.1	Purchasing/Hiring of equipment for closure activities etc.	0.00	0.00	0.00	0.00	0.00	12.17	0.00	10.00	10.38	20.38	0.00	52.13
6.2	Execution & Supervision of the activities by mining personal.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	16.00	36.07
7	**Miscellaneous Charges**	0.00	0.00	0.00	0.00	0.00	0.00	2.54	0.00	0.00	4.12	6.44	17.167
7.1	Miscellaneous charges including power cost, deployment of security personal, 3 years post closure environmental monitoring, supervision.	0.00	0.00	0.00	0.00	0.00	0.00	2.54	0.00	0.00	4.12	6.44	17.17

SANJIV KUMAR SINGH
Partnership Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10.

पवन देव जनता/PAWAN DEV JANTA
Director
EOC A-8A, Sector-24, Noida-201301 (U.P.)

	power cost etc.												
5	**Underground Mining**	5	4	0	2	0	6	6.546 8	9.987 2	20.77 2	41.15 8	144.8 1	223.08
A.1	Sealing of Mine entries for UG mine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	86.54	86.54
A.2	Isolation stopping, if required	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	12.28	0.00	12.46
A.3	Withdrawal of machinery etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	12.28	0.00	24.81
A.4	Subsidence Management	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	12.28	0.00	12.46
A.5	Post closure Subsidence Monitoring	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.14	32.14
A.6	Miscellaneous charges including power cost, supervision etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	12.28	16.09	28.37
	Total estimated expenditure incurred (In Rs Crore)	25.0 8	32.6 4	44.4 8	36.7 8	72.4 1	92.5 8	118.3 5	147.8 8	176.5 6	229.3 4	381.3 4	1273.2 1

11.5 Annual Closure Cost

The annual closure cost has been calculated as per guidelines issued by MoC (vide letter no 55011-012009-CPAM dated 27/08/2009, 18.02.2011, 07.06.2011, 11.01.2012, & 07.01.13).

A. For Opencast

As per circulated guidelines of MoC the closure cost for an opencast mine is to be modified based on the Wholesale Price Index (WPI) as notified by Govt. of India.

The WPI for all commodities issued from Office of Economic Advisor, Ministry of Commerce and Industry, Govt. of India (Base date: 2004-05) was 129.60 in

SANJIV KUMAR SINGH
Recognised Qualified Person
No. [illegible]
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Deputy General Manager
NTPC LIMITED
Sector-24, Noida-201301 (U.P.)

Aug'09 and 177.60 in November '2015. The closure cost was Rs. 6.00 Lakhs per Ha in Aug'09. The current closure cost has been arrived by multiplying Rs. 6.00 Lakhs per Ha by the ratio of WPI in November '15 and WPI in Aug'09 which comes to be Rs. 8.22 Lakhs per Ha. The calculation methodology is given in **Table 11.23.**

Table-11.23

Methodology of Calculation of Annual Closure Cost (Opencast)

A	Lease hold area for West Quarry (including area for Infrastructure outside the block boundary), Unutilised area	3103.04 Ha
B	Lease hold area for Eastern Quarry	
C	Lease hold area for Pakri Barwadih 'A'	485.00 Ha
D	Total lease hold area for opencast (West Quarry, East Quarry, area for infrastructure outside the block boundary, Unutilised area and North West(Sector-A) considered for mine closure (A+B+C)	3588.04 Ha
E	Mine closure cost per Ha for opencast mine in Aug'09	6.00 Lakhs
F	Mine closure cost per Ha for opencast mine in November '15	8.22 Lakhs
G	Life of the mine	52 years
H	Annual base price ((D X F) /G) (for 1st year)	Rs. 567.34 Lakhs
I	Total closure cost for opencast mine (Compounding @ 5% annual escalation)	Rs. 1321.09 Cr.

B. For Underground

As per calculated guidelines of MoC the closure cost for an underground mine is to be modified based on the Wholesale Price Index (WPI) as notified by Govt. of India.

The WPI for all commodities issued from Office of Economic Advisor, Ministry of Commerce and Industry, Govt. of India (Base date: 2004-05) was 126.60 in Aug'09 and 177.60 in November '2015. The closure cost was 1.00 Lakhs per Ha

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

RQP No. 34011/(15)/2009-CPAM dated 27.09.10

PANNA DEVI JAMTA
Page 11+ [illegible]

in Aug'09. The current closure cost has been arrived by multiplying Rs. 1.00 Lakhs per Ha by the ratio of WPI in November '15 and WPI in August'09 which comes to be Rs. 1.37 Lakhs per Ha. The base cost has been escalated to arrive the mine closure cost of land for underground area in year P-10@5% annually. The calculation methodology is given in **Table 11.24**:

Table-11.24

Methodology of Calculation of Annual Closure Cost (Underground)

A	Total lease hold area considered for mine closure	1106.96 Ha
B	Mine closure cost per Ha for underground area in Aug'09	Rs. 1.00 Lakhs
C	Mine closure cost per Ha for underground area in November '2015	Rs. 1.37 Lakhs
D	Rate per Ha (1.37 Lakhs per ha – escalated up to P-10th year @ 5% PA)	Rs. 2.13 Lakhs
E	Life of Mine (P-10 to P-39)	30 year
F	Annual base price [(A X D)/E] (for 1st year of underground operation i.e. P-10)	Rs. 78.44 Lakhs
G	Total closure cost for underground mine (Compounding @ 5% annual escalation)	Rs. 52.12 Crores

The year wise closure cost for opencast and underground is tabulated in **Table 11.25.**

Table 11.25
Year wise Closure Cost for Pakri Barwadih Mine

Closure Cost of PB Coal Block								
Year	Average cost per annum on current cost (In Crores)			Year wise Expenditure with 5 % escalation(In Crores)			Cummulative amount deposited in the Escrow account excluding interest (Rs Crore)	Maximum amount excluding interest to be released w.r.t. expenditure incurred (Rs Crore)
	Opencast	Underground	Total	Opencast	Underground	Total		
P1	5.67	0.00	5.67	5.67	0.00	5.67	5.67	
P2	5.67	0.00	5.67	5.96	0.00	5.96	11.63	
P3	5.67	0.00	5.67	6.25	0.00	6.25	17.89	
P4	5.67	0.00	5.67	6.57	0.00	6.57	24.45	
P5	5.67	0.00	5.67	6.90	0.00	6.90	31.35	
P6	5.67	0.00	5.67	7.24	0.00	7.24	38.59	25.08
P7	5.67	0.00	5.67	7.60	0.00	7.60	46.19	
P8	5.67	0.00	5.67	7.98	0.00	7.98	54.16	
P9	5.67	0.00	5.67	8.38	0.00	8.38	62.56	
P10	5.67	0.78	6.46	8.80	0.78	9.58	72.14	
P11	5.67	0.78	6.46	9.24	0.82	10.07	82.21	32.64
P12	5.67	0.78	6.46	9.70	0.86	10.57	92.78	
P13	5.67	0.78	6.46	10.19	0.91	11.10	103.87	
P14	5.67	0.78	6.46	10.70	0.95	11.65	115.53	
P15	5.67	0.78	6.46	11.23	1.00	12.23	127.76	
P16	5.67	0.78	6.46	11.79	1.05	12.85	140.61	44.49
P17	5.67	0.78	6.46	12.38	1.10	13.49	154.09	
P18	5.67	0.78	6.46	13.00	1.16	14.16	168.26	
P19	5.67	0.78	6.46	13.65	1.22	14.87	183.13	
P20	5.67	0.78	6.46	14.34	1.28	15.61	198.74	
P21	5.67	0.78	6.46	15.05	1.34	16.39	215.14	56.78
P22	5.67	0.78	6.46	15.81	1.41	17.21	232.35	
P23	5.67	0.78	6.46	16.60	1.48	18.08	250.43	
P24	5.67	0.78	6.46	17.43	1.55	18.98	269.40	

P25	5.67	0.78	6.46	18.30	1.63	19.93	289.33	
P26	5.67	0.78	6.46	19.21	1.71	20.92	310.26	72.47
P27	5.67	0.78	6.46	20.17	1.80	21.97	332.23	
P28	5.67	0.78	6.46	21.18	1.89	23.07	355.30	
P29	5.67	0.78	6.46	22.24	1.98	24.22	379.52	
P30	5.67	0.78	6.46	23.35	2.08	25.43	404.95	
P31	5.67	0.78	6.46	24.52	2.19	26.71	431.66	92.50
P32	5.67	0.78	6.46	25.75	2.29	28.04	459.70	
P33	5.67	0.78	6.46	27.03	2.41	29.44	489.14	
P34	5.67	0.78	6.46	28.39	2.53	30.91	520.06	
P35	5.67	0.78	6.46	29.80	2.66	32.46	552.52	
P36	5.67	0.78	6.46	31.29	2.79	34.08	586.60	118.06
P37	5.67	0.78	6.46	32.86	2.93	35.79	622.39	
P38	5.67	0.78	6.46	34.50	3.09	37.58	659.97	
P39	5.67	0.78	6.46	36.23	3.23	39.46	699.42	
P40	5.67	0.00	5.67	38.04		38.04	737.46	
P41	5.67	0.00	5.67	39.94		39.94	777.40	147.96
P42	5.67	0.00	5.67	41.94		41.94	819.34	
P43	5.67	0.00	5.67	44.03		44.03	863.37	
P44	5.67	0.00	5.67	46.24		46.24	909.61	
P45	5.67	0.00	5.67	48.55		48.55	958.16	
P46	5.67	0.00	5.67	50.98		50.98	1009.13	176.56
P47	5.67	0.00	5.67	53.52		53.52	1062.66	
P48	5.67	0.00	5.67	56.20		56.20	1118.86	
P49	5.67	0.00	5.67	59.01		59.01	1177.87	
P50	5.67	0.00	5.67	61.96		61.96	1239.83	
P51	5.67	0.00	5.67	65.06		65.06	1304.89	225.34
P52	5.67	0.00	5.67	68.31		68.31	1373.20	
End of Mine Closure								381.34
Total Cost	**295.02**	**23.53**	**318.55**	**1321.09**	**52.12**	**1373.20**		**1373.20**

Note:

- The above estimated closure cost is based on WPI for "All commodities" as on November '2015. The WPI value for "All Commodities" as downloaded from website of "Office of Economic Advisor" is enclosed as **Annexure XX**.
- Escrow Account has already been opened for area of 4626 ha corresponding mine closure cost is Rs. 799.19 Crores. (Copy of Approval of Mine Closure Plan (MoC) is enclosed at **Annexure-XIII** and the copy of Approved Mine Closure Plan (Report) is enclosed at **Annexure XIIIA**.

11.6 Financial Assurance

As per guidelines for Mine Closure Plan, NTPC shall take following actions for ensuring the financial assurance to complete the mine closure activities:

11.6.1 Opening of an Escrow Account

The proponent has already opened an escrow Account with the Scheduled Bank. The beneficiary of this account is Coal Controller Organization (on behalf of central Government). The proponent shall deposit the amount detailed in previous chapter, on yearly basis into this Escrow account.

11.6.2 Condition for operating the Escrow Account

An agreement, outlining detailed terms and conditions of operating the Escrow account, has been finalized and executed amongst the project owners, concerned Bank and the Coal Controller.

11.6.3 Release of Funds from Escrow Account

Mining shall be carried out in a phased manner initiating afforestation/ work in the mined out area of the first phase while commencing the mining in the second phase i.e. continuation of mining activities from one phase to other indicating the sequence of operations depending on the geo mining condition of the mine. Up to 80% of the total deposited amount including interest accrued in the escrow account shall be released after every five years in line with the periodic examination of the Closure Plan as per Clause 3.1 of the Annexure of the Guidelines.

The amount released shall be equal to the expenditure incurred in the Progressive Mine Closure in past five years or 80% whichever is less. The balance amount at the end of the Final Mine Closure shall be released to mine owner / lease holder on compliance of all provisions of closure plan duly signed by the lessee. It shall be certified that said closure of mine complied all statutory rules, regulations, orders made by the Central or State Govt, statutory organizations, court etc and duly certified by the Coal Controller.

11.7 Responsibilities of the owner

NTPC shall ensure that protective measures contained in the Mine Closure Plan including reclamation and rehabilitation works are carried out in accordance with the approved Mine Closure Plan and Final Mine Closure Plan.

SANJIV KUMAR SINGH
Recognised Qualified Person
Ministry of Coal, Govt. of India

NTPC shall submit to the coal controller a yearly report before 1st July every year setting forth the extent of protective and rehabilitative works carried out as envisaged in the approved Mine Closure Plans. (Progressive and Final Closure Plans). Details of physical progress of the closure activities and expenses incurred shall be included in the yearly report.

11.8 Provision for Mine Closure

NTPC shall obtain a mine closure certificate from Coal Controller to the effect that the protective, reclamation and rehabilitation works have been carried out in accordance with the Mine Closure Plan/Final Mine Closure Plan for surrendering the reclaimed land to the State Government concerned.
After the closure of the mine, the reclaimed leasehold area and any structure thereon, which is not to be utilized by NTPC, shall be surrendered to the state Govt. concerned following a laid down procedure as in vogue at that point of time.

The balance amount at the end of the final Mine Closure shall be released to NTPC on compliance of all provisions of Closure Plan duly signed by the mine owner to the effect that said closure of mine complied with all statutory rules, regulations, orders made by the Central or State Government, statutory organisations, court etc. and duly certified by the Coal Controller. This should also indicate the estimated extractable coal reserves and coal actually mined out.
If the Coal Controller has reasonable grounds for believing that the protective, reclamation and rehabilitation measures as envisaged in the approved mine closure plan in respect of which financial assurance was given has not been or will not be carried out in accordance with mine closure plan, either fully or partially, the Coal controller shall give the mine owner a written notice of his intention to issue the orders for forfeiting the sum assured at least thirty days prior to the date of the order to be issued after giving an opportunity to be heard.



ANNEXURES

LIST OF ANNEXURES

SL. NO.	PARTICULAR	ANNEXURE
1.	Copy of block allotment letter & MoC Letter dated 24th August 2005	Annexure – I & Annexure-II
2.	Copy of Approved Mining Plan & MoC's letter approval of Mining Plan	Annexure –III & Annexure-IIIA
3.	Copy of letter for submission of Mining Plan for PB North-West (Sector-A)	Annexure –IV
4.	Copy of letter for submission of Mining Plan for PB East	Annexure - V
5.	Copy of MoC's letter for submission of Revised Mining Plan and Mine Closure Plan	Annexure - VI
6.	Copy of letter of submission of Revised Mining Plan (1st Revision) to MoC	Annexure - VII
7.	Copy of letter for commencement of Mining from PB East	Annexure - VIII
8.	Copy of MoC's letter for submission of Revised Mining Plan incorporating the changes in sequence of mining operation	Annexure -IX
9.	Copy of MoC's letter granting recognition to RQP for preparation of Mining Plan.	Annexure -X
10.	Copy of letter from CMPDIL& MECL for procurement of GR	Annexure –XI& Annexure-XIA
11.	No dues certificate from CMPDIL regarding Exploration cost	Annexure -XII
12.	Copy of approval letter of Mine Closure Plan & Approved Mine Closure Plan(Jan' 2012)	Annexure –XIII & Annexure - XIIIA
13.	Notification under Section 7 (1) of CBA (A&D) Act	Annexure - XIV
14.	Co-ordinates boreholes of Pakri Barwadih	Annexure - XV
15.	Letter of authorization by the Block Allottee to the RQP	Annexure – XVI
16.	Certificates by the RQP regarding observance of guidelines of Mining Plan	Annexure – XVI A
17.	Certificates by the RQP regarding coverage of block area.	Annexure – XVI B
18.	Certificates by the RQP regarding block boundary as per MoC letter	Annexure – XVI C

पवन देव जमदा/PAWAN DEV JAMTA

19.	Certificates by the RQP regarding observance Mine Act 1952 & other applicable laws	Annexure – XVI D
20.	Certificates by the RQP regarding quarrying up to bottom most seam	Annexure – XVI E
21.	Certificate by the RQP regarding authorisation	Annexure – XVI F
22.	Certificate from the applicant	Annexure - XVII
23.	Letter of RED(Coal Mining) to MoC along with the Board Resolution	Annexure - XVIII
24.	Plan of block boundary issued by CMPDI	Annexure - XIX
25.	WPI value for "All Commodities" as downloaded from website of "Office of Economic Advisor"	Annexure-XX

SANJIV KUMAR SINGH
Recognised Qualified Person
Ltr. 34011(15)/2009-CPAM
Ministry of Coal, Govt. of India



ANNEXURE-I

No. 13016/29/2003-CA
Government of India
Ministry of Coal and Mines
Department of Coal

New Delhi, the 11.10.2004

To

The Chairman & Managing Director,
National Thermal Power Corporation Ltd.,
NTPC Bhawan, Scope Complex,
7 Institutional Area, Lodhi Road,
New Delhi.

Subject :- Allotment of Pakri Barwadih Coal block in favour of National Thermal Power Corporation Ltd. to undertake coal mining for exclusive use of coal in their power plants.

S

I am directed to refer to your letter No. 01/CMCW/MOC/067-623 dated 9.8.2004 on the subject mentioned above and hereby convey the 'in principle' consent of the Government of India to the working of Pakri Barwadih coal block by the National Thermal Power Corporation Limited within the provision of Central Government Company dispensation under Section 3(3)(a) (i) of the Coal Mines (Nationalization) Act, 1973 subject to the following conditions :-

i) Coal mining shall be carried on by NTPC or a separate company to be created with NTPC's participation provided such separate company is a Central Government company with coal mining as an object in its Memorandum of Association. This condition is necessitated under S. 3(3)(a)(i) of the Coal Mines (Nationalization) Act, 1973 which allows coal mining to a Central Government Company.

ii) Coal linkages from CIL/SCCL would not be disturbed in any way with coal mined from Pakri Barwadih block. NTPC shall continue to honor its commitment towards long term linkage from these nationalized coal companies to their thermal power stations through FSAs.

iii) All coal mined from the block including any middlings or rejects etc. if washing is resorted to, shall be used in NTPC power plants. No coal will be disposed off in any other manner, whatsoever without prior permission, in writing, of the Department of Coal.

iv) NTPC would plan for both Open cast and underground mining in Pakri Barwadih coal block so as to extract the reserves below 300 meters as well at a later date.

v) NTPC will do coal mining in accordance with the provisions of the Coal Mines (Nationalization) Act, 1973, the MMDR Act, 1957, the Contract Labour (Regulation & Abolition) Act, 1970 and in compliance with all other mineral, environmental and labour laws and regulations governing the Indian Coal Industry.

Sanjiv

SANJIV KUMAR SINGH
Recognised Officer
No. 2/2/03, Govt. of India
Ministry of Coal

पवन देव जामटा/PAWAN DEV JAMTA
Dep. Gen. Mgr. NTPC LIMITED
(U.P.)

vi) . The mining lease will be executed in the name of the NTPC or such separate Government company which may be formed with equity participation by NTPC

vii) Violation of any of the conditions imposed above on the separate Government Company in mining and disposing o Barwadih coal block will render the mining lease liable for cancel

viii) NTPC may approach the CMPDIL to obtain the geologica payment of necessary exploration cost and obtain a mining lease per the provisions of the MM (D&R) Act, 1957.

Yours faithfully,

(S. K.Kakkar)
Under Secretary

SANJIV KUMAR SINGH
Recognised Certified Person
No. 31011/(19)/2008-CPAM
Ministry of Coal, Govt. of India

SANJIV KUMAR SINGH
Recognised Certified Person
No. 31011/(19)/2008-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA
Dept. of Coal, Govt. of India
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

ANNEXURE-A

Sujit Gulati
Director
Tel. [illegible]

O.O. No. 13018/[illegible]-CA I
Government of India
Ministry of Coal
Shastri Bhawan
[illegible]

Date: 24th August, 2005

Dear Shri Choudhary,

Kindly refer to your letter dated 23/24.5.2005. It has been decided in the Ministry that the block boundary to be indicated to NTPC should be the entire block of Pakri Barwadih including the CBM area as also the unexplored western portion marked as 'A' in the map supplied by you and annexed to this letter.

Since, there is an overlap between CBM exploration areas given to ONGM/IOC and the coal block given to NTPC, this boundary will be communicated to NTPC with the condition that they shall render all necessary cooperation for proper exploration of CBM by the allocatees of CBM blocks without any financial liability or other liabilities on the part of those who have CBM exploration licence.

Further, in order to have a harmonious and coordinated development of the area, both for coal mining as well as exploration/exploitation of CBM, this matter will be referred to the Joint Committee between the Ministry of Coal and Ministry of Petroleum and Natural Gas set up under the MOU of 1997 so that necessary information can be fed to the Joint Committee both by ONGC/IOC and NTPC about their plans so that proper coordinated planning can be done and issues, if any, sorted out in time. You may also inform NTPC accordingly.

With regards,

Yours sincerely,

(Sujit Gulati)

Shri S. Choudhary
Chairman/Managing Director
CMPDIL
Ranke Road
Ranchi

Copy to the Chairman, NTPC, SCOPE Complex, Lodhi road, New Delhi for information. The allocation of Pakri Barwadih coal block to this NTPC shall be subject to their rendering all necessary assistance and cooperation to the allocatees of the overlapping CBM block for exploration/exploitation without any financial liability on the allocatees of the CBM block and to render all necessary information/ cooperation to the Joint Committee for coordinated exploitation/exploration of coal and CBM in the block of Pakri Barwadih.

[illegible]
Section Officer

D. D. Sahai
Recognised Qualified Person
RQP No.-34011/(16)/2004-CPAM

SANJIV KUMAR
Recognised Qualified Person
No. 34011/(16)/2004-CPAM
Ministry of Coal, Govt. of India

[illegible] PAWAN DEV JAMTA

ANNEXURE-III

No. 13016/29/2003-CA-I
Government of India
Ministry of Coal

New Delhi, the [illegible] August, 2006.

To

The Chairman-cum-Managing Director,
National Thermal Power Corporation Limited,
NTPC Bhawan,
SCOPE Complex, Lodhi Road,
New Delhi – 110 003.

Subject : Approval of Mining Plan in respect of Pakri-Barwadih coal mining block (June, 2006) of NTPC Limited.

Sir,

I am directed to refer to your letter No. NTPC:CM:MP:2006:180106 dated 18.01.2006 submitting mining plan of Pakri-Barwadih coal mining block for approval of the Central Government and to state that the mining plan of Pakri-Barwadih co 1 mining block has been considered and the approval of the Central Government thereon is hereby conveyed under Section 5 (2) (b) of the Mines & Minerals (Development & Regulation) Act, 1957 subject to the following conditions :-

i) The Mining Company shall achieve the 15 Mty production level from the opencast operation by 12th year.

ii) As regards part of coal block that has also been allotted to ONGC for Coal Bed Methane extractions, the conditions laid down in the allotment letter shall be fully complied with.

iii) The approval of the mining plan is without prejudice to the requirement of approvals from competent/prescribed authority under the relevant rules/regulations etc.

2. Two copies of the approved mining plans duly signed by the competent authority are returned herewith with the request that a copy of the approved mining plan may be submitted to the concerned State Government for necessary action and also a photocopy of the approved mining plan may be sent to the Coal Controller for monitoring of the block.

Yours faithfully,

(V.S. [illegible])
Under Secretary to the Govt. of India.

Encls. As above.

SANJIV KUMAR SINGH
Hon'ble Qualified Person
No. [illegible]
Ministry of Coal, Govt. of India

[illegible] PAWAN DEV JAMTA
[illegible] NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

ANNEXURE-IV

एन टी पी सी लिमिटेड
NTPC Limited

Ref: NTPC:PE-MP&D: 7010

Date: 02/07/2013

To
The Section Officer (CA-I),
Ministry of Coal,
Shastri Bhawan
New Delhi

Sub: **Submission of Mining Plan and Mine Closure Plan of Pakri Barwadih- 'A' which is a part of Pakri Barwadih Coal Block of NTPC Ltd. for Approval of MoC**

Dear Sir

NTPC Ltd was allotted Pakri Barwadih Coal Block in North Karanpura Coalfield in the State of Jharkhand vide MoC letter No. 13016/29/2003-CA-I dated 11th oct'2004, New Delhi. Mining Plan for the Block has been approved by MoC vide letter no. 13016/29/2003-CA-I dated 25th Aug'2006. As Area 'A' of the Block was not explored at that time, NTPC has given commitment to carry out detailed exploration of the area and to submit a separate Mining Plan for this.

Detailed exploration of the area has been now been carried out and a separate Mining Plan and Mine Closure Plan for this has been prepared as per MMDR Act'1957 and Rule 22 (4) of Mineral Concession Rules,1960 and enclosed in two volumes i.e.

Volume I : Text,
Volume II : Drawings

Four copies of Mining Plan and Mine Closure Plan are enclosed for kind perusal and according necessary approval Please.

Thanking You.

Yours Sincerely,

A. K. Dash
Addl. GM (PE-Mine Planning & Design)
4th Floor, Engineering Office Complex, Sector-24
NTPC Ltd., NOIDA-201301
Tel no. 0120-2410102
Email: akdash@ntpcepc.co.in

Encl: Four Copies of Mining Plan in two volumes (Text & Drawings).

Copy for kind information: GM(PE-MP&D)/ GM(PE-Mech)/ GM(Coal Mining)/ GM(PP&M) / ED (Engg)/ ED(T)/ STA to D (T)

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011(6)(6)/2009-CA-V
Ministry of Coal, Govt. of India

ANNEXURE V

एन टी पी सी लिमिटेड
NTPC Limited

Ref: NTPC/PE/MP&D/1010-37 Date: 31/08/2013

To
The Secretary Officer (CA-I)
Ministry of Coal,
Shastri Bhawan,
New Delhi

Sub: **Submission of Mining Plan and Mine Closure Plan of Pakri Barwadih- 'East Quarry' which is a part of Pakri Barwadih Coal Block of NTPC Ltd. for Approval of MoC**

Dear Sir,

NTPC Ltd was allotted Pakri Barwadih Coal Block in North Karanpura Coalfield in the State of Jharkhand vide MoC letter No. 13216/29/2003-CA-I dated 11th oct 2004, New Delhi. Mining Plan for the Block has been approved by MoC vide letter no. 13016/29/2003-CA-I dated 25th Aug 2006 which envisages mining of Pakri Barwadih Block dividing it into West Quarry & East Quarry. East Quarry of the Block was earlier planned for mining after exhaustion of West Quarry reserve. But to increase coal production, feasibility of simultaneous mining of both West Quarry & East Quarry has now been studied. The present Mining Plan of Pakri Barwadih East Quarry envisages for Mining of East Quarry simultaneously with West Quarry.

Accordingly separate Mining Plan and Mine Closure Plan for Pakri Barwadih 'East Quarry' has been prepared as per MMDR Act 1957 and Rule 22 (4) of Mineral Concession Rules, 1960 and enclosed in two volumes i.e.

Volume I Text & Annexures
Volume II Drawings

Eight copies of Mining Plan and Mine Closure Plan are enclosed for kind perusal and according necessary approval Please.

Thanking You

Yours Sincerely

A. K. Singh
Asst. GM (PE-Mine Planning & Design)
5th Floor, Engineering Office Complex, Sector-24
NTPC Ltd., NOIDA-201301
Tel.no: 0120-2410102
Email: [illegible]

Each Eight Copies of Mining Plan in two volumes (Text & Drawings)

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(1E)/2008-CP(II)
Ministry of Coal, Govt. of India



ANNEXURE-VI

SPEED POST

F. No. CA/10/.../2013-CA I (Part)
Government of India
Ministry of Coal

Shastri Bhawan, New Delhi
Dated the 2nd October, 2013

To

Shri A.K. Dash,
Add. GM (PC Mine Planning & Design)
3rd Floor, Engineering Office Complex, Sector -24
NTPC Ltd. NOIDA - 201 301
Tel No: 0120-2410102

Subject: Submission of Revised Mine plan and Mine Closure Plan of Pakri Barwadih coal Block of NTPC for approval of MoC.

Sir,

I am directed to refer to your letter Nos. CK: PEM: 7010: MP:22 dated 20.6.2012, No. NTPC: PE-MP&D: 7010 dated 6.2.2013 and No. NTPC: PE-MP&D:7010:27 dated 27.8.2013 on the above subject and to say that following three Mine Plan and Mine Closure Plan have been submitted for your consideration vide above mentioned letters:

(i) Revised Mining Plan of Pakri Barwadih Coal Block (In Revenue Area) (Deforestation involved).
(ii) Mining Plan of Pakri Barwadih -A coal block (Part of Pakri Barwadih coal block).
(iii) Mining plan of Pakri Barwadih coal block (East Quarry) (Part of Pakri Barwadih coal block).

2. It was later observed that the first Mining Plan for Pakri Barwadih block was approved by MoC for the whole block proposing two quarries i.e. West Quarry & East Quarry to be worked in sequence, therefore the Revised Mining Plan should also be prepared for the Whole Block and not for part of the block.

3. You are therefore, requested to submit the Revised Mining Plan (In Revenue) including Mine Closure Plan as a whole instead of in parts. Copies of the above Plan and Mine Closure plans as mentioned in para 1 above are returned herewith.

Yours faithfully,

[A. SANJAY SATAY]
Under Secretary to the Government of India
Tel. No. 2307 [illegible]

Copy for information to : Director (Tech.), Ministry of Coal.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 3401/(15)/2009-CPAM
Ministry of Coal, Govt. of India

CERTIFIED TRUE COPY/PANNA DEV DUTTA
Date of Issue: [illegible]
Date of Expiry: [illegible]
Plot No. Sector-24, Noida-201301 (U.P.)

ANNEXURE-VII

एन टी पी सी लिमिटेड

NTPC Limited

Ref: CC: CM: ENGG: 7010: MP: 82 Date: 03.04.2015

To,

Under Secretary (CA-I)
Ministry of Coal, Shastri Bhawan,
New Delhi

Sub: Submission of Revised Mining Plan & Mine Closure Plan (1st Revision) of Pakri Barwadih Coal Block of NTPC Ltd. for Approval of MoC

Sir,

NTPC Ltd was allotted Pakri Barwadih Coal Block North Karanpura Coalfield I in the State of Jharkhand vide MoC letter No. 13016/29/2003-CA-I dated 11th Oct 2004. Mining Plan of the block has been approved by MoC vide letter no. 13016/29/2003 CA-I dated 25th Aug 2006. Consequent upon obtaining the Geological Report for sector A area of the block and due to operational reasons the following Mining Plans were submitted by NTPC as under:

(i) Mining Plan for a capacity of 15 Mtpa with faster ramp up submitted on 20.03.2012.
(ii) Mining Plan for the Sector A of the block with a rated capacity of 3 Mtpa submitted on 02.07.2013.
(iii) Mining Plan for Eastern Quarry with a capacity of 7 Mtpa submitted on 27.08.2013.

Subsequently Ministry of Coal vide letter no F.No. 13016/29/2003-CA-I (Part) dated 9th Oct 2014 (Copy enclosed as **Annexure-I**) observed that the first Mining Plan for Pakri Barwadih block was approved by MoC for the whole block (proposing two quarries i.e. West Quarry & East Quarry to be worked in sequence), therefore the Revised Mining Plan should also be prepared for the whole block and not part of the block.

Accordingly, the Revised Mining Plan (1st Revision) including Mine Closure Plan as a whole has been prepared for the block in two volumes as per the statutory

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(18)/2009-CA-I
Ministry of Coal, Govt. of India

NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodhi Road, New Delhi

811

requirements of MMDR Act 1957 amended from time to time and Rule 22 (4) of MCR, 1960 framed thereunder in two Volumes

Volume I Text

Volume II Drawings

We are enclosing four copies of the Revised Mining Plan (1st Revision) of Pakri Barwadih Coal Block for kind perusal and according necessary approval.

Thanking You,

Yours Sincerely,

(SUNIL JUMDE)
GM (Coal Mining-Engg.)
1st Floor, CORE-7, SCOPE Complex,
NTPC Bhawan, Lodi Road, New Delhi-110 003
Tel no: 011-24365309 Fax: 011-24367089
e-mail: suniljumde@ntpc.co.in

Encl: 1) Four Copies of Revised Mining Plan in two volumes (Text & Drawings)
2) Four Copies of Approved Mining Plan
3) Four copies of Approved Mine Closure Plan

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011(15)/2009-CHAM
Ministry of Coal, Govt. of India

NTPC

To
The Section Officer (CPAM)
Ministry of Coal
Shastri Bhawan
New Delhi- 110001

Sub: Deviations/Variations with respect to approved Mining Plan

Relocation of initial Quarry (Pakri Barwadih Coal Mining Block-East Quarry) and Relocation of External Dump of Eastern Quarry w.r.t Approved Mining Plan of Pakri Barwadih Coal Mining Block

Ref: Approval of Mining Plan Vide Letter no. 13016/29/2003/CA dated 26.08.2006

Dear Sir

NTPC Ltd. was awarded Pakri Barwadih Coal Block [illegible] Coalfields, Dist. Hazaribagh, Jharkhand for captive mining by Ministry of coal, Government of India vide letter no. 13016/29/2003-CA, New Delhi dated 17th Oct 2004 & DO No 13016/29/2003-CA dated 24th August 2005 **(copy enclosed)**. The Mining plan of Pakri Barwadih Coal Block which covered mining of Western and Eastern Area of the block, was approved by MoC vide letter no 13016/29/2003/CA – I dated 26.08.2006 for targeted capacity of 15 Mtpa.

As per approved Mining Plan, West and East Quarry of Pakri Barwadih Coal Mining Project were envisaged be worked in sequence i.e. West Quarry followed by East Quarry. Western Quarry (Yr 1 to Yr 2-) & Eastern Quarry (Yr 25 to Yr 39) Western Pit was envisaged to be opened at four places namely WP-1, WP-2, WP-3 and WP-4. External Dumps were planned to be placed at three designated places namely Dump 'A', 'B', 'C'. Entire dump of the Eastern Quarry was planned to be placed in the void of Western Quarry. A drawing showing the above quarries and external dumps is shown in the drawing placed at **Annexure – I (Plate No. I)**

To fulfill the commitment given to Government regarding start of Coal Production and also keeping in view the likely time taking process of award of MDO for Western Pit and densely populated Hostile villages existing within Western Pit as well as connecting roads, NTPC has proposed to commence Mining Operations in the Eastern Pit area adjacent to main road where land is available. OB removal and Coal

SANJIV KUMAR SIN
Recognised Qualified Pe
No. 34011/(15)/2006
Ministry of Coal, Govt. of India

एनटीपीसी
NTPC

एन टी पी सी लिमिटे
NTPC Limited

production has been planned from a patch of Eastern Quarry for two years as **Interim Arrangement**. The Plans showing the proposed stage of working by the end of First Year and Second Year are given in **Plate No. II and III (Annexure II)** respectively. Proposed area for mining has been mainly selected due to the availability of land for mining as well as ease of approach from the State Highway.

Due to the above mentioned interim arrangement, there are certain variations with respect to approved Mining Plan as mentioned below.

i) **Change in mining sequence and External Dump Area:** The proposed quarry area is part of Eastern Pit as per approved Mining Plan in its North-Eastern part. The proposed quarry is at a distance of approximately 850 m in North-West direction from the Tandwa-Barkagaon-Hazaribagh State Highway and is accessible by road connecting to Arhara village from the State Highway. However in variance with the approved Mining Plan, Eastern Quarry is now planned to be started in 1st year of Mining Operations instead of 25th year.

The land for external dumps as per approved Mining Plan Dump A, B, C is presently not available. Accordingly, to start mining operations, **External Dump** has been planned in the available land in the north side of this quarry area. This area lies partly in the area earlier identified for coal evacuation facilities. This dump area mainly consists of demarcated and non demarcated forest land. (The area has been shown in **Plate No. II**. Forest diversion of the external dump area has been obtained and change of land use of this area has been taken up with MoEF.

ii) **Variation in Coal Transportation Arrangement:** As per earlier approved Mining Plan coal is planned to be transported through belt conveyor to Banadag Railway siding which are under construction. It is proposed that coal shall be transported to Banadag Siding by Road till the construction of cross country conveyor.

There is no change in calendar program and mining lease area with respect to the approved Mining Plan.

The stage plans duly signed by RQP is enclosed as Annexure II for your kind information please.

Thanking you

With kind regards

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340/17(15)/2009-CPAM
Ministry of Coal, Govt. of India

(Sunil Jumde)
General Manager
Coal Mining (Engg)
Fax No. 011-24367088

पवन देव जनता / PAWAN DEV JANTA
Dy. Manager / Coal Mining
NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(18)/2008-CPAM
Ministry of Coal, Govt. of India

एनटीपीसी
NTPC

एन टी पी सी लिमिटेड
NTPC Limited

Enclosure

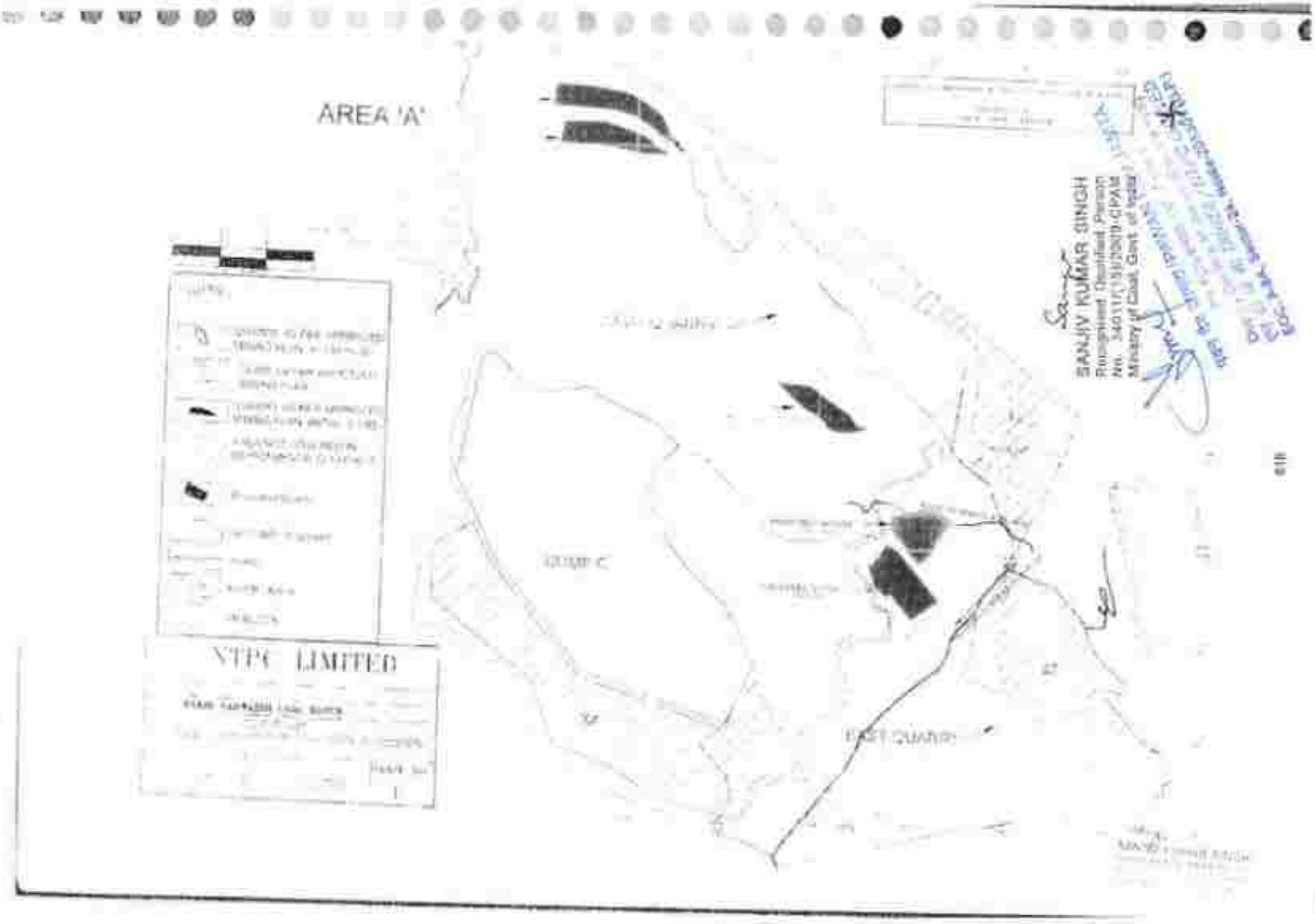
1. Allocation letter vide letter no. 13016/29/2003-CA, New Delhi, dated 13th Oct 2004 & DO No.13016/29/2003-CA, dated 24th August 2005
2. Approval of Mining Plan Vide Letter no 13016/29/2003/CA – I dated 20.08.2008
3. **Annexure – I:** A drawing showing the pits, external dumps as per approved Mining Plan and Proposed Quarry & Dump (Plate No. - I)
4. **Annexure – II:**

   Stage Plan at the end of First Year for the Proposed Quarry (Plate No. II)

   Stage Plan at the end of Second Year for the Proposed Quarry (Plate No. III)

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 11011/(15)/2003-CPAM
Ministry of Coal, Govt. of India

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340111(15)/2009-CPAU
Ministry of Coal, Govt. of India


AREA 'A'
SANJIV KUMAR SINGH
NTPC LIMITED



SANJIV KUMAR SIN...
Recognised Qualified Person
No. 34911(15)/2000-CPAM
Ministry of Coal, Govt. of India

AREA 'A'





ANNEXURE-IX

BY SPEED POST

F.No.130/5/26/2003-CA-I (Part)
Government of India
Ministry of Coal

Shastri Bhawan, New Delhi
Dated: the [illegible] June, 2015

Shri Sanjit Jamde,
General Manager, Coal Mining (Engg.)
NTPC Ltd.
NTPC Bhawan, Scope Complex,
[illegible] Institutional Area, Lodhi Road,
New Delhi-110003.

Subject: **Issue regarding change in Mining Sequence and External Dump Area (for 2 years as interim arrangement) for Pakri Barwadih coal block**

The undersigned is directed to refer to NTPC's letter No. [illegible] dated 22.05.2015 on the above-mentioned subject and to say that the Standing Committee, in its meeting held on 28.05.2015 under MMDR Act, 1957, has considered the above-captioned issue and after due deliberations, permitted NTPC to commence the Mining Operation at Rampur Quarry with the direction that NTPC will submit the Revised Mining Plan within three months after incorporating the changes in sequence of operation. Extracts of the minutes of the above meeting is enclosed herewith.

2. In view of the above, NTPC is requested to comply with the above-mentioned direction of Standing Committee.

Yours faithfully,

(A. SANJAY SAHAY)
Under Secretary to the Government of India
Tel: [illegible]

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CP/[illegible]
Ministry of Coal, Govt. of India

[illegible]
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

No. 34011/05-2015-CPAM
Government of India
Ministry of Coal

Shastri Bhawan, New Delhi
Dated the [illegible]-06-2015

OFFICE MEMORANDUM

Subject : **Issue regarding change in Mining Sequence and External Dump Area (for 2 years as interim arrangement) for Pakri Barwadih Coal Block of M/s NTPC.**

The undersigned is directed to refer to CA-I Section's Note No. 1301/[illegible]-CA-I (Part) dated 17-04-2015 forwarding therewith Revised Mining Plan and Mine Closure Plan (1st Revision) for Pakri Barwadih Coal Block for placing before the Standing Committee and to inform that after Submitting the 1st Revision of Mining Plan of Pakri Barwadih Coal Block, M/s NTPC submitted a representation page letter No. CC-FEM-7010/MP-01 dated 22-05-2015 (copy enclosed) and sought permission from MoC regarding change in Mining Sequence and External Dump.

The Standing Committee meeting under MMDR Act, 1957 held on 25-05-2015, had considered the above said issue. After due deliberations, the Standing Committee permits NTPC to commence the Mining Operation at Eastern Quarry with the direction that NTPC will submit the Revised Mining Plan, within three months after incorporating the changes in sequence of operation (copy of minutes enclosed).

In view of above, the aforesaid plan is deleted from the Pendency list of CPAM Section.

CA-I Section is requested to take further necessary action at their end.

This issue has approval of Competent Authority.

P.P. Nagpal
Under Secretary (CPAM)

Endt. as above

Under Secretary
CA-I Section
Ministry of Coal

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(18)/2009-CPAM
Ministry of Coal, Govt. of India

पवन देव जायसवाल / PAWAN DEV JAIN
Deputy General Manager, NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (M.P.)

SANJIV KUMAR SINGH
Recognized Qualified Person
No. 34011/(15)/2000-[illegible]
Ministry of Coal, Govt. of India

Chairman of the Standing Committee

Secretary, Ministry of Coal
Chairman of the Standing Committee

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(19)/2005-CPAM
Ministry of Coal, Govt. of India

पवन देव जामता/PAWAN DEV JAMTA
[illegible]
[illegible] LIMITED
[illegible] Sector 24, Noida-201301 (U.P.)

ANNEXURE - IA

Sujit Gulati
Director
Tel. [illegible]

D.O. No. 13018/[illegible]-CA I
Government of India
Ministry of Coal
Shastri Bhawan
[illegible]

Date: 24th August, 2005

Dear Shri Chaudhary,

Kindly refer to your letter dated 23/24.5.2005. It has been decided in the Ministry that the block boundary to be indicated to NTPC should be the entire block of Pakri Barwadih including the CBM area as also the unexplored barwadih portion marked as 'A' in the map supplied by you and annexed to this letter.

Since there is an overlap between CBM exploration areas given to ONGM/IOC and the coal block given to NTPC, this boundary will be communicated to NTPC with the condition that they shall render all necessary cooperation for proper exploration of CBM by the allocations of CBM blocks without any financial liability or other liabilities on the part of those who have CBM exploration licence.

Further, in order to have a harmonious and coordinated development of the area, both for coal mining as well as exploration/exploitation of CBM, this matter will be referred to the Joint Committee between the Ministry of Coal and Ministry of Petroleum and Natural Gas set up under the MOU of 1997 so that necessary information can be fed to the Joint Committee both by ONGC/IOC and NTPC about their plans so that proper coordinated planning can be done and issues, if any, sorted out in time. You may also inform NTPC accordingly.

With regards,

Yours sincerely,

(Sujit Gulati)

Shri S. Chaudhary
Chairman/Managing Director
CMPDIL
Kanke Road
Ranchi

Copy to the Chairman, NTPC, SCOPE Complex, Lodhi road, New Delhi for information. The allocation of Pakri Barwadih coal block to M/s NTPC shall be subject to their rendering all necessary assistance and cooperation in the allocations of the overlapping CBM block for exploration/exploitation without any financial liability on the allocations of the CBM block and to render all necessary information/ cooperation in the Joint Committee for coordinated exploitation/exploration of coal and CBM in the block of Pakri Barwadih.

[illegible]
Section Officer

D. D. Sahai
Recognised Qualified Person
CGP No. 34011/(15)/2004-CPAM

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2005-CPAM
Ministry of Coal, Govt. of India

[illegible]

SANJIV KUMAR SINGH

ANNEXURE-X

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

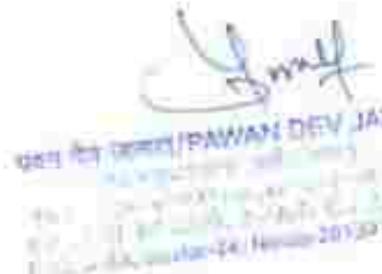
[illegible]

[illegible]

[illegible]

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 3401(i)(18)/2006-CFAS
Ministry of Coal, Govt. of India

[illegible]/PAWAN DEV JAMTA
[illegible]
[illegible] NTPC LIMITED
[illegible], Sector-24, Noida-201301 (U.P.)



CMPDI
ISO 9001 Company

सेन्ट्रल माइन प्लानिंग एण्ड डिजाइन इन्स्टीच्यूट लिमिटेड
गोंडवाना प्लेस, कांके रोड, राँची - ८३४ ००८ (झारखण्ड) इण्डिया
Central Mine Planning & Design Institute Limited
Gondwana Place, Kanke Road, Ranchi - 834 008 (Jharkhand), INDIA

Ref. No. DGM/93(A)/ 1095-96 Dt. 4th May'05

To
Sri S.K. Gupta
AGM(I/c-FM-CM)
National Thermal Power Corpn. Ltd.
Engineering Office Complex
Plot No. A-8A, Sector-24,
Post Box No. 13,
NOIDA (U.P)
Pin-201301

Sub : **Geological Report of Pakri Barwadih Block**
Ref : *Your letter Nil dt. 2.5.05*

Dear Sir,

The copy of the Geological Report of Pakri Barwadih block is hereby being handed over to your representative. You are requested to kindly note that the above report may neither be reproduced in any form nor a copy of the same be handed over to any other person. However, you will be required to pay the full exploration cost once you hear from CMPDI in this regard.

Yours faithfully,

(A. Mukherjee)
Chief of Geology & Drilling

Dr. D. Sahai
Recognised Qualified Person
RQP No.-34011/4(16)/2004-CPAM

☎ : (+91) 651 2230035, 2231852, 2231850, Fax : (+91) 651 2231851, 2231447, E-Mail : cmpdhq@cmpdi.co.in
Visit CMPDI Web page http://www.cmpdi.co.in

SANJIV KUMAR SI...
Recognised Qualified Per...
No. 34011/(15)/2009-CP...
Ministry of Coal, Govt. of India

ANNEXURE/VI
629



ZONAL OFFICE
EASTERN ZONE
Ph. 0651-2290088, 2290089 (O)
Fax 0651-2290089
E-mail: ozh_ranchi@sancharnet.in

मिनरल एक्सप्लोरेशन कार्पोरेशन लि.
(भारत सरकार का उद्यम)
MINERAL EXPLORATION
CORPORATION LIMITED
(A Government of India Enterprise)
Ancillary Chowk, Tupudana
P.O. Hatia, District - Ranchi
Jharkhand - 834 003

ज.प्र./एम.ई.सी.एल./पू.अ./रांची/एनटीपीसी/2012-13/493 दिनांक: 30.10.2012

सेवा में,
श्री राजीव नंदन,
अति. महाप्रबंधक (अंचल)
एन.टी.पी.सी. लिमिटेड
पोस्ट-हजारीबाग- झारखंड-825301

Sub: Submission of Final Geological Report on Detailed Exploration for coal in Pakri Barwadih-A Block, North Karanpura Coalfield, Distt. Hazaribagh, Jharkhand

Sir,

Enclosed please find three sets in two volumes of "Final Geological Report on Detailed Exploration for Coal in Pakri Barwadih-A Block, North Karanpura Coalfield, Distt.: Hazaribagh, Jharkhand" for your kind perusal and further necessary action as per following details.

The Final Geological Report is in two volumes as under.

Volume-I Text & Annexures - Three Sets
Volume-II Plates - Three Sets

Kindly acknowledge the receipt.

Thanking you,

भवदीय,
30.10.12
आंचलिक प्रबंधक
पूर्वी अंचल, रांची

Encl. as above

प्रतिलिपि:

1. श्री उपेंद्र राय, महाप्रबंधक (कोल मार्केटिंग), एन.टी.पी.सी., कॉर्पोरेट सेंटर, नोएडा (उ.प्र.), फैक्स नं.0120-2410243/24105791
2. महाप्रबंधक (गवेषण), एम.ई.सी.एल., नागपुर।
3. प्रभाग प्रमुख (एम.बि. एवं पो.), एम.ई.सी.एल., नागपुर।

SANJIV KUMAR
Resignated Qualified Pr.
No. 34011(15)/2008-CH
Ministry of Coal, Govt. of India

आंचलिक प्रबंधक
पूर्वी अंचल, रांची

ANNEXURE-XX

cmpdi

Central Mine Planning & Design Institute Limited
(A Subsidiary of Coal India Limited / Govt. of India Public Sector Undertaking)
Gonduwana Place, Kanke Road, Ranchi - 834 031, Jharkhand (India)
CORPORATE IDENTITY NUMBER - U14292JH1975GOC001223

पत्रांक संख्या:सीएमपीडीआई/डीजी/कैप्टीव/139/ 1163 दिनांक 12.05.2016

सेवा में,

श्री मनीष उमीयाल,
SO, CA-I,
भारत सरकार,
कोयला मंत्रालय,
शास्त्री भवन,
नई दिल्ली - 110 115

Sub: Exploration cost of CMPDIL for Pakri Barwadih coal block – additional payment reg.

महाशय,

With reference to your letter No.13016/29/2003-CA-I (Part) dated 19th July, 2015 on the above subject, it may be mentioned that CMPDI vide letter No.CMPDI/DG/Captive/139/762 dated 29.05.2016 addressed to Mr A.Sanjay Sahay, Under Secretary (Coal), MoC has communicated that Rs.1,50,80,373.00 is outstanding against NTPC on the basis of information available at that point of time. However, after receipt of the instant letter the matter was re-investigated and it was found that no additional payment is due with NTPC since the payment of Rs.15,62,75,462/- only has been deposited by NTPC before the datum line set by CMPDI vide its letter dated 14/15.02.2006. The matter may also be communicated to NTPC.

धन्यवाद,

भवदीय

12.08.2016
(अमिताभ टाम)
महाप्रबन्धक (गवेषण)

SANJIV KUMAR SIN...
Recognised Qualified Pro...
No. 34911/(13)/2008-CA-...
Ministry of Coal, Govt. of India

...PAWAN DEV JAMTA
...NTPC LIMITED
...Noida-201301 (U.P.)

फोन सेवा / Phone No. +91 651 2223...
फैक्स सेवा / Fax No. +91 651 2223...
वेब साईट / Website Address: www.cmpdi.co.in



ANNEXURE-XIII

No.34011/09/2011-CPAM
Government of India
Ministry of Coal

Shastri Bhavan,
New Delhi, 20th April, 2012

To

Shri A K Dash
Additional General Manager (PE-MPD)
5th Floor, Engineering Office Complex, Sector-24,
NTPC Limited, Noida -201301.
Fax No.0120-2410136, 37, Tele : 0120-2410102

Subject :	Approval of Mine Closure Plan (January, 2012) for Pakri Barwadih Coal Block, District Hazaribagh, Jharkhand submitted by M/s NTPC Ltd.

Sir,

I am directed to refer to your letter No CC:PEM:7010:MP:09 dated 31-01-2012 on the subject mentioned above and to say that the Mine Closure Plan (January 2012) to be read along with the party's letter dated 31-01-2012 has been considered by the Standing Committee and the approval of the Central Government is hereby conveyed under Section 5(2)(b) of the Mines & Minerals (Development & Regulation) Act, 1957 subject to the following conditions:

(i) The mining company shall take all necessary precautions regarding safety of mine workings, persons deployed therein during the implementation of the Mine Closure Plan;

(ii) Mining lease to be acquired shall not encroach into any other coal block.

(iii) The approval of the mine closure plan is without prejudice to the requirement of approvals from competent/prescribed authority under the relevant rules/regulations, etc.

Two copies of the approved Mine Closure Plan duly signed by the competent authority are returned herewith with request that a copy of the approved Mine Closure Plan may be submitted to concerned State Government for necessary action and also a photocopy of the approved Mine Closure plan may be sent to the Coal Controller for the purpose of monitoring.

(V S Rana)
Under Secretary (CPAM)
Tele : 011 23073937
Fax : 011 23073922
Email :uscpam.moc@nic.in

Encls : as above

Copy to : (i) The Under Secretary (CA-I). One copy of the approved Mine Closure Plan (January 2012) and company's letters dated 31-01-2012 are forwarded herewith.

(ii) The Director, Coal Controller, 1-Council House Street, Kolkata.

SANJIV KUMAR DEV JAMTA
Chief Engineer, Quality Control
NTPC LIMITED
Sector-24, Noida-201301 (U.P.)

ANNEXURE-XIV

रजिस्ट्री सं. डी. एल. (एन) 04/0007/2003–03

SEOD NO. D.L.-(N)04/0007/2003-03

भारत का राजपत्र
The Gazette of India

प्राधिकार से प्रकाशित

PUBLISHED BY AUTHORITY

साप्ताहिक

WEEKLY

सं. 25] नई दिल्ली, जून 17—जून 23, 2012, ज्येष्ठ/आषाढ़ 27—आषाढ़ 2, 1934

No. 25] NEW DELHI, JUNE 17—JUNE 23, 2012, JYAISTHA 27—ASADHA 2, 1934

इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह पृथक संकलन के रूप में रखा जा सके

Separate Paging is given to this Part in order that it may be filed as a separate compilation

भाग II—खण्ड 3—उप-खण्ड (ii)

PART II—Section 3—Sub-section (ii)

भारत सरकार के मंत्रालयों (रक्षा मंत्रालय को छोड़कर) द्वारा जारी किए गए सांविधिक आदेश और अधिसूचनाएं

Statutory Orders and Notifications Issued by the Ministries of the Government of India

(Other than the Ministry of Defence)

विधि और न्याय मंत्रालय

(विधि कार्य विभाग)

शुद्धि-पत्र

नई दिल्ली, 4 जून, 2012

का.नि. 1048. भारत के राजपत्र में भाग II खण्ड 3(i) में प्रकाशित भारत सरकार, विधि और न्याय मंत्रालय (विधि कार्य विभाग) की अधिसूचना सं. 19(3)/2009-न्यायिक दिनांक 11 मई, 2012 में आंशिक संशोधन करते हुए, उक्त अधिसूचना के द्वारा जारी की गई इस विभाग की तारीख 30 मई, 2012 की अधिसूचना सं. एफ. 19(3)/2009-न्यायिक में आंशिक संशोधन करते हुए, उक्तानुसार अधिसूचना जारी करने की तारीख 11-4-2012 के स्थान पर 11-4-2012 पढ़ी जाए।

[सं. एफ. 19(3)/2009-न्यायिक]

सुरेश चन्द्र, संयुक्त सचिव एवं विधि सलाहकार

MINISTRY OF LAW AND JUSTICE

(Department of Legal Affairs)

CORRIGENDUM

New Delhi, the 4th June, 2012

S.O. 1048. —In partial modification of this Department's Notification F.No.19(3)/2009-Judl., dated 30th May, 2012 accepting resignation of Shri Vivek K. Tankha, Senior Advocate as Additional Solicitor General of India (Direct Taxes) in the Supreme Court w.e.f. 13-4-2012, the date of acceptance of resignation may be read as 11-4-2012, instead of 11-4-2012.

[No. F. 19(3)/2009-Judl.]

SURESH CHANDRA, Jt. Secy. and Legal Advisor

वित्त मंत्रालय

(वित्तीय सेवाएं विभाग)

नई दिल्ली, 12 जून, 2012

का.आ. 1049.—बैंककारी विनियमन अधिनियम, 1949 (1949 का 10) की धारा 53 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए भारत सरकार, वित्त मंत्रालय वित्तीय सेवा विभाग की अधिसूचना सं. 10/2/2003-बीओ.I दिनांक 26 मई, 2003 द्वारा यथा संशोधित उक्त अधिसूचना के पैरा 2 में निम्नलिखित और संशोधन करती है, अर्थात् उक्त पैरा 2 के उपपैरा 2.1 के स्थान पर निम्नलिखित उपपैरा रखा जाएगा, अर्थात्:—

"2.1 उक्त अधिनियम की धारा 10 की उप-धारा (1) के खण्ड (b) के उप-खण्ड (ii) में उल्लेखित वित्त वर्ष के अलावा किसी वित्त वर्ष के लिए, कोई बैंककार, जो उक्त उप-खण्ड के अधीन छूट का दावा करता है, उक्त वित्त वर्ष के लिए अपनी आय की विवरणी के साथ आयकर अधिनियम, 1961 (1961 का 43) की धारा 139 की उप-धारा (1) के अधीन निर्धारित तारीख को या उससे पूर्व, आयकर प्राधिकारी को, उक्त उप-खण्ड के प्रयोजनों के लिए, फार्म संख्यांक 3सीएफ में एक प्रमाणपत्र प्रस्तुत करेगा।"

[फा. सं. 10/2/2003-बीओ.I]

विनय कुमार, अवर सचिव

SANJIV KUMAR SINGH PARMAR DEV JAGETA
Recognised Qualified Person
No. 340111(15)/2009-CRAM
Ministry of Coal, Govt. of India

BC Line passes through eastern part of village Chhotpani, along partly common boundary of villages Basmuria Chhotpani, Bhantabha Sigari, southern part of village Sigari, eastern part of village Amratha and meets at point 'C' on the common boundary of villages Amratha Pallikhai.

CD Line passes through western part of village Pallikhai and meets at point 'D' on the common boundary of villages Pallikhai Kebsasiya.

DA Line passes along partly common boundary of villages Kebsasiya Daltata, western part of village Sahsasiya and meets at starting point 'A'.

[F. No. 43015/4/2012-PRIW-I]

A. K. DAS, Under Secy.

नई दिल्ली, 12 जून, 2012

का.आ. 2094.—केन्द्रीय सरकार ने पेट्रोलियम पाइपलाइन (भूमि में उपयोग के अधिकार का अर्जन) अधिनियम, 1962 (1962 का 50) (जिसे इसमें इसके पश्चात् उक्त अधिनियम कहा गया है) की धारा 3 की उप-धारा (1) के अधीन जारी, भारत के राजपत्र, भाग-II, खंड 3, उपखंड (ii) में तारीख 28 अगस्त, 2011 में प्रकाशित भारत सरकार की अधिसूचना संख्या का.आ. 2267, तारीख 26 अगस्त, 2011 द्वारा इस अधिसूचना से उपाबद्ध अनुसूची में विनिर्दिष्ट पाईपलाइन को भूमि में बिछाया जाना (एच.सी.) पेट्रोलियम (सपना) से एच.बी.जे. (सपना) से, कोरबा जिले का पुनरीक्षण करने के आशय की घोषणा की थी ;

और, केन्द्रीय सरकार का यह समाधान हो गया है, कि इस अधिसूचना से संलग्न अनुसूची में वर्णित उक्त भूमिगत पाईपलाइन के लिए ये अपेक्षित है ;

अतः, अब, केन्द्रीय सरकार, पेट्रोलियम पाइपलाइन (भूमि में उपयोग के अधिकार का अर्जन) अधिनियम, 1962 (1962 का 50) की धारा 7 की उप-धारा (1) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, इसमें संलग्न अनुसूची में वर्णित भूमि में एच.बी.जे. (सपना) से एच.वी.जे. (सपना) तक की भूमि में उपयोग के अधिकारों का अर्जन करने का अपने आशय की घोषणा की है ।

टिप्पण 1 : इस अधिसूचना की बाबत सभी हितबद्ध व्यक्तियों को सक्षम प्राधिकारी (भारत पेट्रोलियम कॉर्पोरेशन लिमिटेड,एम/पीसीसी/एल) तारीख 20 सितम्बर, 2011 का विधिवान प्रत्यायुक्त, अंकारोहिका (झारखंड राज्य) के कार्यालय में या कोरबा पेट्रोलियम, 1, कार्यालिस हाउस स्ट्रीट, कोलकाता -700001 के कार्यालय में या आर्यावर्त पिपलिन, (टैरिफ सुविधा) एन्टीलीवी पिपलिन, प्रथम तल, जेल एनेक्स की गली, संख्या-24, गोहाटी-781001 या इस व्यवहारिक एन्टीलीवी लिमिटेड, पंडरी बाजारोड कोहा लाईन्स कॉम्प्लेक्स, रायपुर पहुंच जानिल ऐरा, छत्तीसगढ़-492010 (छत्तीसगढ़) के कार्यालय में या मुख्य महाप्रबंधक (फाईनेंस हायर), पेट्रोलियम पाइपलाइन प्रकल्प डिस्ट्रिक्ट इण्डस्ट्रीज्यू, पीडियाना पर्वत, कानपुर रोड पर्वत या आयात नियंत्रक, 1, कार्यालिस हाउस स्ट्रीट, कोलकाता-700001 या जिला कलेक्टर और मजिस्ट्रेट, जिला-एकरीकोरा, झारखंड के कार्यालय में किया जा सकता ;

टिप्पण 2 : उक्त अधिनियम की धारा 6 के उपबंध को ओर ध्यान आकृष्ट किया जाता है जो निम्न प्रावधान करता है ;

अर्जन के प्रति आक्षेप :-

"6(1) कोई व्यक्ति, जो किसी भूमि जिसकी बाबत धारा 7 की उप-धारा (1) के अधीन कोई अधिसूचना जारी की गई है, अधिसूचना जारी की जाने के तीस दिन के भीतर सम्पूर्ण भूमि या उसमें किसी स्वार्थ के बारे में सक्षम प्राधिकारी को लिखित आक्षेप कर सकेगा कि ऐसी भूमि या उस पर या उसमें किसी अधिकारों का अर्जन किए जाने से उसे या उसके हितबद्ध होने का कथन ।

स्पष्टीकरण :-

(1) इस धारा में अन्तर्विष्ट कुछ उपबंधों वाली भांति यह होगा पर्याप्त है कि कोई व्यक्ति किसी भूमि में कोपरा उपयोग के लिए स्वार्थ रखता अधिकारों रखता पाया है और ऐसे परिस्थिति कोपरा सरकार या किसी अन्य व्यक्ति को नहीं करने चाहिए ।

(2) धारा 5 की उप-धारा (1) में अन्तर्विष्ट प्रावधान अनुसार प्राधिकारी को लिखित रूप में किया जाएगा और सक्षम प्राधिकारी, आवेदनकर्ता को स्वयं सुने जाने का या विधि व्यवसायी द्वारा सुने जाने का अवसर देगा और ऐसे सभी आक्षेपों को सुनने के पश्चात् और ऐसी अतिरिक्त जांच, यदि कोई हो, करने के पश्चात् जो वह आवश्यक समझता है, वह या तो धारा 7 की उप-धारा (1) के अधीन अधिसूचित भूमि के या ऐसी भूमि में या उस पर के अर्जन के एक विकल्प या ऐसी भूमि के विभिन्न टुकड़ों या ऐसी भूमि में का उस पर के अधिकारों के संबंध में आक्षेपों पर अपनी सिफारिशों और उसका प्रमाण करने वाली कार्यवाही की अधिलेख सहित निर्णय रिपोर्ट केन्द्रीय सरकार को उसके विनिश्चय के लिए देगा ।

(3) इस धारा के प्रयोजन के लिए कर अर्जित किसी भूमि में हितबद्ध व्यक्ति वह है जिसे यह दावा करने का हकदार होगा कि भूमि का किसी ऐसी भूमि में या उस पर के अधिकार का अधिनियम के अधीन अर्जित कर लिया जाये है ।"

SANJIV KUMAR SINGH
Recognised Certified Person
No. 2...
Ministry of Coal, Govt. of India

विज्ञप्ति 3 : केन्द्रीय सरकार ने खनिज (विविध) नियमावली, 1960 के नियम 22, उपनियम (1) के साथ पठित खान और खनिज (विकास और विनियमन) अधिनियम, 1957 (1957 का 67) की धारा 17 के उपधारा (1) और (2) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, भारत सरकार के इस्पात और खान मंत्रालय की अधिसूचना सं. 2107 तारीख 13 अगस्त, 2007 द्वारा संशोधित विज्ञप्ति संख्या 141, दिनांक 31 जनवरी, 2007 द्वारा प्रकाशित प्रारूपिकी को रद्द करते हुए निम्नलिखित को अधिसूचित किया है, अर्थात् :

अनुसूची

पश्चिमी कोयलांचल लिमिटेड खनिज संपदा खंड-V

जिला अनूपपुर, मध्यप्रदेश

सिंहपुर-इकलीमाल, झारखंड

[रिक्रूटमेंट संख्या-एनसीसीएल/एचक्यू/एमपी-V/एनजेसी/2013/एनजेसीएल01, दिनांक 25 दिसम्बर, 2013]

खनी अधिकार :

(क) राजस्व भूमि :

क्रम सं.	गांव का नाम	प्लाट नं.	थाना	जिला	क्षेत्रफल		टिप्पणी
					हेक्टेयर	एकड़	
1.	बेलहू	32	बोरेडाही	इकलीमाल	3.29	13.00	भाग
2.	अडहारी	33	बोरेडाही	इकलीमाल	59.58	235.99	भाग
3.	बीरसहू	42	बोरेडाही	इकलीमाल	12.82	31.68	भाग
4.	जमरा	43	बोरेडाही	इकलीमाल	23.10	57.03	भाग
5.	अतरौल	44	बोरेडाही	इकलीमाल	20.23	50.00	भाग
6.	रामसहित	45	बोरेडाही	इकलीमाल	6.07	15.00	भाग
7.	सिंगरा	46	बोरेडाही	इकलीमाल	57.43	141.92	भाग
8.	पश्चिमी मनकहरा	56	मझगवां	इकलीमाल	106.46	263.09	भाग
			कुल (हमारा)		284.98	953.71	

(ख) वन भूमि (अधिसूचित/गैर-अधिसूचित/वर्गीकृत-प्रकृति) :

क्रम सं.	गांव का नाम	प्लाट नं.	थाना	जिला	क्षेत्रफल		टिप्पणी
					हेक्टेयर	एकड़	
1.	बेलहू	32	बोरेडाही	इकलीमाल	6.48	16.00	भाग
2.	अडहारी	33	बोरेडाही	इकलीमाल	20.17	49.83	भाग
3.	बीरसहू	42	बोरेडाही	इकलीमाल	242.29	598.60	भाग
4.	जमरा	43	बोरेडाही	इकलीमाल	5.06	12.50	भाग
5.	अतरौल	44	बोरेडाही	इकलीमाल	14.58	36.02	भाग
6.	रामसहित	45	बोरेडाही	इकलीमाल	28.32	70.00	भाग
7.	सिंगरा	46	बोरेडाही	इकलीमाल	11.42	28.21	भाग
8.	पश्चिमी मनकहरा	56	मझगवां	इकलीमाल	4.52	11.17	भाग
			कुल (हमारा)		332.84	822.33	

Sanjiv Kumar Singh
SANJIV KUMAR SINGH
Regional Director (HQ) & JMA
Ministry of Coal, Govt. of India

भाग II :—

(iv) कुल गणना भूमि : 344.70 हेक्टर (हेक्टर) -056.10 एकड़ (विगत)

(v) कुल वन भूमि : 212.00 हेक्टर (हेक्टर) -721.42 एकड़ (विगत)

कब्जा योग्य (iv-iii) : 1907.00 हेक्टर (हेक्टर) -4134.72 एकड़ / (विगत)

अर्जनाधीन क्षेत्रफल निम्नांकित खेतों की भूमियों :

1. ग्राम मेलपुर : 140 फील्ड, 60, 64 फील्ड, 65 से 67, 68 फील्ड, 69 फील्ड, 85, 86, 88 से 101, 106 फील्ड, 107 फील्ड, 108, 109, 110 फील्ड, 111, 114 फील्ड, 119 फील्ड, 120 फील्ड, 121 फील्ड, 122, 123, 124 फील्ड,

2. ग्राम कोटवीरा : 182 फील्ड, 186, 189, 190 से 196, 198 से 211, 213 से 220, 240 फील्ड, 241से 254, 255 फील्ड, 346 फील्ड, 450 फील्ड, 451, 452 फील्ड, 453 फील्ड, 454 फील्ड, 455 फील्ड, 456 से 467, 468 फील्ड, 471 फील्ड, 472 फील्ड, 473 से 481, 484 फील्ड, 485 से 492, 494 से 513, 515 फील्ड, 516, 518 फील्ड, 519 फील्ड, 520 फील्ड, 521 फील्ड, 522 से 526, 528 से 544, 546 से 574, 576 से 621, 625 से 635, 641 से 660, 662 फील्ड, 664 फील्ड,

3. ग्राम मोतिपुर : 3 से 20, 22 से 30, 31 से 37, 1631 फील्ड, 1632 से 1658, 1683, 1687 से 1698,

4. ग्राम जिगरा : 1, 3 से 47, 50 फील्ड, 69 से 102, 104 फील्ड, 106 फील्ड, 111 से 126

5. ग्राम अटोरिया : A फील्ड, 13 फील्ड, 12 से 39, 77 फील्ड, 54 फील्ड, 58 फील्ड, 26, 28 से 31, 37,

6. ग्राम धनहरिया : 473 फील्ड, 481 फील्ड, 482, 483 फील्ड, 484 फील्ड, 507, 496 फील्ड, 497 फील्ड, 498 फील्ड, 499, 500 फील्ड, 501 फील्ड, 502 फील्ड, 503 फील्ड, 504 फील्ड, 505 फील्ड, 506, 508 फील्ड, 509, 501 फील्ड, 510 से 514,

7. ग्राम सिंगरा : 133 फील्ड, 135 फील्ड, 141 फील्ड, 142, 145 फील्ड, 146 फील्ड, 147, 148 फील्ड, 149 फील्ड, 150 फील्ड, 151 फील्ड, 152 फील्ड, 153 फील्ड, 154 से 156, 158 से 239, 241, 242, 243 फील्ड, 244, 245, 246 से 249, 252 से 256,

8. ग्राम पिपरी अमरहिया : 1441 से 1452, 1463 से 1466, 1468 से 1717, 1721 से 1743, 1745 से 1855, 1858 से 1860, 1862 से 1864, 2424 से 2443, 2446, 2516, 2518,

अर्जनाधीन क्षेत्र भूमि पार्सलों की सूची :

1. ग्राम मेलपुर : 67 फील्ड, 84 फील्ड, 87, 113 फील्ड, 1416 फील्ड,
2. ग्राम कोटवीरा : 181 फील्ड, 212, 491, 522, 545, 629, 634, 640, 681 फील्ड,
3. ग्राम मोतिपुर : 1 से 1, 21, 38, 63 फील्ड, 512 फील्ड, 1663 फील्ड, 1699,
4. ग्राम जिगरा : 2, 139 फील्ड,
5. ग्राम अटोरिया : 67 फील्ड, 71, 75, 82, 84,
6. ग्राम धनहरिया : 477 फील्ड, 480 फील्ड,
7. ग्राम सिंगरा : 30 फील्ड, 644 फील्ड, 645, 240, 325, 243, 761, 766,
8. ग्राम पिपरी अमरहिया : 1447, 2864

जनता किसी प्रकार आक्षेप और या सलाह भेजना :

"भाग-बी" ग्राम वार विवरण प्रस्तावित :

1. गाँव मेलपुर : गाँव बिन्दु "ए" जनपद गया के सबसे पश्चिमोत्तर किनारा पर स्थित है, यहाँ से सीधी पूर्व की ओर [illegible] 51, 193, 22, 439, 890, 645, 961, 479, 423, 555, 286, 658, 899, 857, 447, 899, 240 से गुजरते हुए ब [illegible] "बी 1" पर समाप्त होती है।

2. गाँव कोटवीरा : गाँव बिन्दु "बी 1" जनपद गया के पश्चिम से 200 मी उत्तर दिशा का किनारा है यहाँ से दक्षिण [illegible] 122 मीटर 500 से गुजरते हुए गाँवदीह सीमा के बिन्दु "बी 2" पर समाप्त होती है।

3. गाँव मोतिपुर : गाँव बिन्दु "बी 2" जनपद गया के उत्तरी किनारा का [illegible] यहाँ से सीधा पूर्व की ओर गाँवदीह सीमा [illegible] गाँव के बिन्दु "बी 3" पर समाप्त होती है।

4. गाँव [illegible] : गाँव बिन्दु "बी 3" जनपद गया के पूर्वी किनारा के [illegible] जहाँ [illegible] पूर्व का ओर गाँवदीह सीमा [illegible]

SANJIV KUMAR SINHA
Recognised Geologist / [illegible]
Ref. [illegible]
Ministry of Coal, Govt. of India

484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, के मुताबिक हुई नजदीकी रक्त के बिन्दु "ए" पर समाप्त होती है ।

3. इसके बाद पूर्व दिशा में बिन्दु "बी" नजदीकी रक्त की 2000-भूजी बिल्डिंग का निर्माण है और गलियां संख्या 13, 23, 31, 24, 25 से गुजरती हुई नजदीकी रक्त के बिन्दु "बी" पर समाप्त होती है ।

4. तत्पश्चात पूर्व दिशा में बिन्दु "सी" नजदीकी रक्त की दस मंजिला बिल्डिंग का निर्माण है और 2400-भूजी फ्लैट और गलियां संख्या 25, 6 और 27 से गुजरती हुई दूसरी रक्त के बिन्दु "डी" पर समाप्त होती है ।

5. इसके बाद पूर्व दिशा में बिन्दु "ई" नजदीकी रक्त की आठ मंजिला बिल्डिंग का निर्माण है और 1600-भूजी फ्लैट और गलियां संख्या 27 से गुजरती हुई दूसरी रक्त के बिन्दु "ई" पर समाप्त होती है ।

6. तत्पश्चात दक्षिण दिशा में बिन्दु "एफ" नजदीकी रक्त की 2000-भूजी बिल्डिंग का निर्माण है और रक्त निर्माण की दक्षिण-भूजी की ओर गलियां संख्या 24, 152, 153, 152, 151, 150 और 149 से गुजरती हुई दूसरी रक्त के बिन्दु "एफ" पर समाप्त होती है ।

7. इसके बाद पूर्व दिशा में बिन्दु "जी" डिस्पोजल प्लांट की 2000 बिल्डिंग का निर्माण है और 2000 निर्माण की 2000-बीघाओं की ओर गलियां संख्या 149, 150, 141, 132 से गुजरती हुई दूसरी रक्त के बिन्दु "जी" पर समाप्त होती है ।

8. तत्पश्चात दक्षिण दिशा में बिन्दु "एच" डिस्पोजल प्लांट की 2000 बिल्डिंग का निर्माण है और पूर्व की ओर जाती गलियां संख्या 133, 132, 142, 144, 241 से गुजरती हुई दूसरी रक्त के बिन्दु "एच" पर समाप्त होती है ।

9. तत्पश्चात पूर्व दिशा में बिन्दु "आई" डिस्पोजल प्लांट की 2000 बिल्डिंग का निर्माण है और पूर्व की ओर जाती गलियां संख्या 243 से गुजरती हुई दूसरी रक्त के बिन्दु "आई" पर समाप्त होती है ।

10. तत्पश्चात दक्षिण दिशा में बिन्दु "जे" डिस्पोजल प्लांट की 2000-भूजी बिल्डिंग का निर्माण है और दक्षिण-भूजी की ओर गलियां संख्या 241, 240, 239, 238, 255, 256, 257, 258, 259, 260, 261, 262 से गुजरती हुई दूसरी रक्त के बिन्दु "जे" पर समाप्त होती है ।

11. तत्पश्चात पूर्व दिशा में बिन्दु "के" डिस्पोजल प्लांट की दक्षिण-भूजी बिल्डिंग का निर्माण है और दक्षिण-पश्चिम की ओर गलियां संख्या 263, 264, 265, 266, 267, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262 से गुजरती हुई दूसरी रक्त के बिन्दु "के" पर समाप्त होती है ।

12. तत्पश्चात दक्षिण दिशा में बिन्दु "एल" डिस्पोजल प्लांट की दक्षिण-भूजी बिल्डिंग का निर्माण है और बीघाओं के दक्षिण की ओर गलियां संख्या 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, के मुताबिक हुई नजदीकी रक्त के बिन्दु "एल" पर समाप्त होती है ।

13. तत्पश्चात पूर्व दिशा में बिन्दु "एम" डिस्पोजल प्लांट की दक्षिण-भूजी बिल्डिंग का निर्माण है और बीघाओं के दक्षिण की ओर गलियां संख्या 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541,

14. रेखा पी21-पी24:- रेखा बिन्दु "पी23" सोनभद्र खान के दक्षिण-पश्चिम सिरे का निर्माण करती है और उत्तर-पश्चिम की ओर लगभग 1.6 कि.मी. तक फैली हुई इसी खान के बिन्दु "पी24" पर समाप्त होती है ।

15. रेखा पी24-पी25:- रेखा बिन्दु "पी24" सोनभद्र खान के पश्चिमी सिरे का निर्माण करती है और उत्तरी खंड के दक्षिण-पश्चिम की ओर लगभग 1.0 कि.मी. तक फैली हुई सोनभद्र खान के बिन्दु "पी25" पर समाप्त होती है ।

16. रेखा पी25-पी26:- रेखा बिन्दु "पी25" खान नक्शा में दर्शाए गए कुल सिरे का निर्माण करती है और दक्षिण-पश्चिमी की ओर लगभग 1.2 कि.मी. तक फैली हुई चाटोडोर खान के बिन्दु "पी26" पर समाप्त होती है ।

17. रेखा पी26-पी27:- रेखा बिन्दु "पी26" इस अधिसूचना के दक्षिणी सिरे का निर्माण करती है और उत्तर-पश्चिम की ओर सोनभद्र खान के लगभग 1.0 कि.मी. तक फैली हुई सोनभद्र खान के बिन्दु "पी27" पर समाप्त होती है ।

18. रेखा पी27-पी28:- रेखा बिन्दु "पी27" इसके सोनभद्र के उत्तर-पश्चिमी सिरे पर स्थित है और उत्तर-पश्चिमी की ओर लगभग 1.0 कि.मी. तक फैली हुई इसी खान के बिन्दु "पी28" पर समाप्त होती है ।

19. रेखा पी28-पी29:- रेखा बिन्दु "पी28" इस अधिसूचना के पश्चिमी सिरे पर स्थित है और उत्तर-पश्चिम की ओर सोनभद्र खान के लगभग 1.0 कि.मी. तक फैली हुई इसी खान के बिन्दु "पी29" पर समाप्त होती है ।

20. रेखा पी29-पी1:- रेखा बिन्दु "पी29" खान सोनभद्र के उत्तर-पश्चिम सिरे का निर्माण है और उत्तर-पश्चिम की ओर लगभग 1.0 कि.मी. तक फैली हुई इसी खान के बिन्दु "पी1" पर समाप्त होती है ।

"अनुसूची-बी" खान परिसीमन विवरण

1. रेखा बी बी1:- रेखा बिन्दु "बी" खान नक्शे में दर्शाए गए सोनभद्र के उत्तरी पश्चिमी सिरे का निर्माण है और इसी खान के पूर्वी छोर तक लगभग 1450 मीटर तक फैली हुई इसी खान के बिन्दु "बी1" पर समाप्त होती है ।

2. रेखा बी1 बी2:- रेखा बिन्दु "बी1" खान नक्शे में दर्शाए गए सोनभद्र के उत्तरी पश्चिमी सिरे का निर्माण है और इसी खान के उत्तरी छोर तक लगभग 1950, 1955, 1960 मीटर तक फैली हुई इसी खान के बिन्दु "बी2" पर समाप्त होती है ।

3. रेखा बी2 बी3:- रेखा बिन्दु "बी2" खान नक्शे में दर्शाए गए सोनभद्र के उत्तरी पश्चिमी सिरे का निर्माण है और इसी खान के पश्चिमी छोर तक लगभग 1915, 1919, 1920 मीटर तक फैली हुई इसी खान के बिन्दु "बी3" पर समाप्त होती है ।

4. रेखा बी3 बी4:- रेखा बिन्दु "बी3" खान नक्शे में दर्शाए गए सोनभद्र के उत्तरी पश्चिमी सिरे का निर्माण है और इसी खान के दक्षिण की ओर लगभग 1070 मीटर तक फैली हुई इसी खान के बिन्दु "बी4" पर समाप्त होती है ।

5. रेखा बी4 बी5:- रेखा बिन्दु "बी4" खान नक्शे में दर्शाए गए सोनभद्र के उत्तरी पश्चिमी सिरे का निर्माण है और इसी खान के पश्चिमी छोर तक लगभग 1920, 1921, 1922, 1923 मीटर तक फैली हुई इसी खान के बिन्दु "बी5" पर समाप्त होती है ।

6. रेखा बी5 बी6:- रेखा बिन्दु "बी5" खान नक्शे में दर्शाए गए सोनभद्र के उत्तरी पश्चिमी सिरे का निर्माण है और इसी खान के दक्षिण की ओर लगभग 1933, 1937, 1939, 1941, 1942, 1945, 1946, 1947, 1950, 1950 मीटर तक फैली हुई इसी खान के बिन्दु "बी6" पर समाप्त होती है ।

7. रेखा बी6 बी7:- रेखा बिन्दु "बी6" खान नक्शे में दर्शाए गए सोनभद्र के उत्तरी पश्चिमी सिरे का निर्माण है और इसी खान के पश्चिमी छोर तक लगभग 1960, 1970, 1975 मीटर तक फैली हुई इसी खान के बिन्दु "बी7" पर समाप्त होती है ।

8. रेखा बी7 बी8:- रेखा बिन्दु "बी7" खान नक्शे में दर्शाए गए सोनभद्र के उत्तरी पश्चिमी सिरे का निर्माण है और इसी खान के दक्षिण की ओर लगभग 1950, 1960, 1965, 1967 मीटर तक फैली हुई इसी खान के बिन्दु "बी8" पर समाप्त होती है ।

9. रेखा बी8 बी9:- रेखा बिन्दु "बी8" खान नक्शे में दर्शाए गए सोनभद्र के उत्तरी पश्चिमी सिरे का निर्माण है और इसी खान के पश्चिमी छोर तक लगभग 1960, 1965, 1969, 1972 मीटर तक फैली हुई इसी खान के बिन्दु "बी9" पर समाप्त होती है ।

10. रेखा बी9 बी10:- रेखा बिन्दु "बी9" खान नक्शे में दर्शाए गए सोनभद्र के उत्तरी पश्चिमी सिरे का निर्माण है और इसी खान के दक्षिण की ओर लगभग 1970, 1980 मीटर तक फैली हुई इसी खान के बिन्दु "बी10" पर समाप्त होती है ।

11. रेखा बी10 बी11:- रेखा बिन्दु "बी10" खान नक्शे में दर्शाए गए सोनभद्र के उत्तरी पश्चिमी सिरे का निर्माण है और इसी खान के पश्चिमी छोर तक लगभग 1980, 1985, 1990 मीटर तक फैली हुई इसी खान के बिन्दु "बी11" पर समाप्त होती है ।

SANJIV KUMAR SINGH
Recognised Gazetted Person
No. 34084/15/2008-CAM
Ministry of Coal, Govt. of India

12. रेखा बी11 बी12:- रेखा बिन्दु "बी 11" द्वारा पश्चिमी बासाडीह के उत्तरी कंटेनमेंट सिरों पर मिलता है और इसी गांव के उत्तरी पूर्व की ओर पांच आयाम 2125, 2122, 2130, 1738, 1134 से गुजरती हुई इसी गांव के बिन्दु "बी 12" पर समाप्त होती है।

13. रेखा बी12 बी13:- रेखा बिन्दु "बी 12" इस गांव बासाडीह के उत्तरी सिरों पर मिलता है और इसी गांव के पूर्व की ओर पांच आयाम 1134, 1133, 1136, 1134, 1133, 1132 से गुजरती हुई इसी गांव के बिन्दु "बी 13" पर समाप्त होती है।

14. रेखा बी13-बी14:- रेखा बिन्दु "बी 13" इस पश्चिमी बासाडीह के उत्तर सिरों पर मिलता है और इसी गांव के पश्चिमी पूर्व की ओर पांच आयाम 1132, 1128 से गुजरती हुई इसी गांव के बिन्दु "बी 14" पर समाप्त होती है।

15. रेखा बी14-बी15:- रेखा बिन्दु "बी 14" द्वारा पश्चिमी बासाडीह के उत्तरी पूर्व सिरों पर मिलता है और इसी गांव के पश्चिमी पूर्व की ओर पांच आयाम 1128, 1041 से गुजरती हुई इसी गांव के बिन्दु "बी 15" पर समाप्त होती है।

16. रेखा बी15 बी16:- रेखा बिन्दु "बी 15" द्वारा पश्चिमी बासाडीह के पूर्व सिरों पर मिलता है और इसी गांव के दक्षिणी पूर्व की ओर पांच आयाम 1041 से गुजरती हुई इसी गांव के बिन्दु "बी 16" पर समाप्त होती है।

17. रेखा बी16-बी17:- रेखा बिन्दु "बी 16" द्वारा पश्चिमी बासाडीह के पूर्व सिरों पर मिलता है और इसी गांव के दक्षिणी पूर्व की ओर पांच आयाम 1041, 1032 से गुजरती हुई इसी गांव के बिन्दु "बी 17" पर समाप्त होती है।

18. रेखा बी17-बी18:- रेखा बिन्दु "बी 17" द्वारा पश्चिमी बासाडीह के पूर्व सिरों पर मिलता है इसी गांव के दक्षिणी पूर्व की ओर पांच आयाम 1032, 1440 से गुजरती हुई इसी गांव के बिन्दु "बी 18" पर समाप्त होती है।

19. रेखा बी18 बी19:- रेखा बिन्दु "बी 18" द्वारा पश्चिमी बासाडीह के पूर्व सिरों पर मिलता है और इसी गांव के दक्षिणी पश्चिमी की ओर पांच आयाम 1440 से गुजरती हुई इसी गांव के बिन्दु "बी 19" पर समाप्त होती है।

20. रेखा बी19-बी20:- रेखा बिन्दु "बी 19" द्वारा पश्चिमी बासाडीह के दक्षिणी पूर्व सिरों पर मिलता है और इसी गांव के दक्षिणी पश्चिमाय की ओर पांच आयाम 1443 से गुजरती हुई इसी गांव के बिन्दु "बी 20" पर समाप्त होती है।

21. रेखा बी20 बी21:- रेखा बिन्दु "बी 20" द्वारा पश्चिमी बासाडीह के दक्षिणी पूर्व सिरों पर मिलता है और इसी गांव के दक्षिणी पश्चिमाय की ओर पांच आयाम 1448 से गुजरती हुई इसी गांव के बिन्दु "बी 21" पर समाप्त होती है।

22. रेखा बी21 बी22:- रेखा बिन्दु "बी 21" द्वारा पश्चिमी बासाडीह के दक्षिणी पूर्व सिरों पर मिलता है और इसी गांव के दक्षिणी पश्चिमाय की ओर पांच आयाम 1448 से गुजरती हुई इसी गांव के बिन्दु "बी 22" पर समाप्त होती है।

23. रेखा बी22 बी23:- रेखा बिन्दु "बी 22" द्वारा पश्चिमी बासाडीह के दक्षिणी पूर्व सिरों पर मिलता है और इसी गांव के दक्षिणी पश्चिमाय की ओर पांच आयाम 1448 से गुजरती हुई इसी गांव के बिन्दु "बी 23" पर समाप्त होती है।

24. रेखा बी23 बी24:- रेखा बिन्दु "बी 23" द्वारा पश्चिमी बासाडीह के दक्षिणी पूर्व सिरों पर मिलता है और इसी गांव के दक्षिणी पश्चिमाय की ओर पांच आयाम 1448, 2404 से गुजरती हुई इसी गांव के बिन्दु "बी 24" पर समाप्त होती है।

25. रेखा बी24 बी25:- रेखा बिन्दु "बी 24" द्वारा पश्चिमी बासाडीह के दक्षिणी पूर्व सिरों पर मिलता है और इसी गांव के उत्तरी पूर्व की ओर पांच आयाम 2404 से गुजरती हुई इसी गांव के बिन्दु "बी 25" पर समाप्त होती है।

26. रेखा बी25-बी26:- रेखा बिन्दु "बी 25" द्वारा पश्चिमी बासाडीह के दक्षिणी पूर्व सिरों पर मिलता है और इसी गांव के उत्तरी-पश्चिमाय की ओर पांच आयाम 2404, 2438, 2436, 2339 से गुजरती हुई इसी गांव के बिन्दु "बी 26" पर समाप्त होती है।

27. रेखा बी26 बी27:- रेखा बिन्दु "बी 26" द्वारा पश्चिमी बासाडीह के दक्षिणी सिरों पर मिलता है और इसी गांव के दक्षिणमुखी पश्चिमाय की ओर पांच आयाम 2339, 2337, 2458 से गुजरती हुई इसी गांव के बिन्दु "बी 27" पर समाप्त होती है।

28. रेखा बी27 बी28:- रेखा बिन्दु "बी 27" द्वारा पश्चिमी बासाडीह के दक्षिणी सिरों पर मिलता है और इसी गांव के दक्षिणमुखी पश्चिमाय की ओर पांच आयाम 2458, 2334, 2363 से गुजरती हुई इसी गांव के बिन्दु "बी 28" पर समाप्त होती है।

29. रेखा बी28 बी29:- रेखा बिन्दु "बी 28" द्वारा पश्चिमी बासाडीह के दक्षिणी सिरों पर मिलता है और इसी गांव के उत्तरी पश्चिमाय की ओर पांच आयाम 2363, 2362 से गुजरती हुई इसी गांव के बिन्दु "बी 29" पर समाप्त होती है।

30. रेखा बी29-बी30:- रेखा बिन्दु "बी 29" द्वारा पश्चिमी बासाडीह के दक्षिणी सिरों पर मिलता है और इसी गांव के उत्तरी पश्चिमाय की ओर पांच आयाम 2362, 2361, 2359, 2358, 2335, 2324 से गुजरती हुई इसी गांव के बिन्दु "बी 30" पर समाप्त होती है।

SANJIV KUMAR SIN
Recognised Qualified Per
No. 342011/01/2009/BSR/1001 JAIPUR
Authority of Govt. Govt. of India
Dept. of Land Resources
EDC, A-84, Sector-24, Noida-201301 (U.P.)

11. ਜਿਸ ਬੀਤ ਅਤੇ ਸੀਮਾ :– ਜਿਸ ਬਿੰਦੂ "ਏ 38" ਤੋਂ ਅੱਗੇ ਨਕਸ਼ੇ ਵਾਲਾਮੁੰਦਰ ਅਤੇ ਦੱਖਣੀ ਜਿਲਾਂ ਦਾ ਜਿਲਾ ਹੈ ਅਤੇ ਇਸੀ ਜਗਾ ਤੇ ਦਖਣੀ ਪਰਿਮਾਣ ਅਤੇ ਹੋਰ ਪਾਰੇ ਖੇਤਰ 2324, 2325, 2276, 2275, 2274, 2273 ਤੇ ਮੁਕਾਬੀ ਹੁੰਦੀ ਹੋਈ ਜਗਾ ਅਤੇ ਬਿੰਦੂ "ਏ 37" ਤੇ ਸਮਾਪਤ ਹੁੰਦੀ ਹੈ ।

12. ਜਿਸ ਬੀਤ ਅਤੇ ਸੀਮਾ :– ਜਿਸ ਬਿੰਦੂ "ਏ 37" ਤੋਂ ਅੱਗੇ ਨਕਸ਼ੇ ਵਾਲਾਮੁੰਦਰ ਅਤੇ ਦੱਖਣੀ ਪਰਿਮਾਣ ਜਿਲਾਂ ਦਾ ਜਿਲਾ ਹੈ ਅਤੇ ਇਸੀ ਜਗਾ ਤੇ ਦਖਣੀ ਪੂਰਬ ਅਤੇ ਅਤੇ ਪਾਰੇ ਖੇਤਰ 2273, 2274 ਤੇ ਮੁਕਾਬੀ ਹੁੰਦੀ ਹੋਈ ਜਗਾ ਅਤੇ ਬਿੰਦੂ "ਏ 32" ਤੇ ਸਮਾਪਤ ਹੁੰਦੀ ਹੈ ।

13. ਜਿਸ ਬੀਤ ਅਤੇ ਸੀਮਾ :– ਜਿਸ ਬਿੰਦੂ "ਏ 32" ਤੋਂ ਅੱਗੇ ਨਕਸ਼ੇ ਵਾਲਾਮੁੰਦਰ ਅਤੇ ਦੱਖਣੀ ਪਰਿਮਾਣ ਜਿਲਾਂ ਦਾ ਜਿਲਾ ਹੈ ਅਤੇ ਇਸੀ ਜਗਾ ਤੇ ਦਖਣੀ ਪਰਿਮਾਣ ਅਤੇ ਅਤੇ ਪਾਰੇ ਖੇਤਰ 2274, 2275 ਤੇ ਮੁਕਾਬੀ ਹੁੰਦੀ ਹੋਈ ਜਗਾ ਅਤੇ ਬਿੰਦੂ "ਏ 33" ਤੇ ਸਮਾਪਤ ਹੁੰਦੀ ਹੈ ।

14. ਜਿਸ ਬੀਤ ਅਤੇ ਸੀਮਾ :– ਜਿਸ ਬਿੰਦੂ "ਏ 33" ਤੋਂ ਅੱਗੇ ਨਕਸ਼ੇ ਵਾਲਾਮੁੰਦਰ ਅਤੇ ਦੱਖਣੀ ਪਰਿਮਾਣ ਜਿਲਾਂ ਦਾ ਜਿਲਾ ਹੈ ਅਤੇ ਇਸੀ ਜਗਾ ਤੇ ਦਖਣੀ ਪੂਰਬ ਅਤੇ ਅਤੇ ਪਾਰੇ ਖੇਤਰ 2275, 2276 ਤੇ ਮੁਕਾਬੀ ਹੁੰਦੀ ਹੋਈ ਜਗਾ ਅਤੇ ਬਿੰਦੂ "ਏ 34" ਤੇ ਸਮਾਪਤ ਹੁੰਦੀ ਹੈ ।

15. ਜਿਸ ਬੀਤ ਅਤੇ ਸੀਮਾ :– ਜਿਸ ਬਿੰਦੂ "ਏ 34" ਤੋਂ ਅੱਗੇ ਨਕਸ਼ੇ ਵਾਲਾਮੁੰਦਰ ਅਤੇ ਦੱਖਣੀ ਪਰਿਮਾਣ ਜਿਲਾਂ ਦਾ ਜਿਲਾ ਹੈ ਅਤੇ ਇਸੀ ਜਗਾ ਤੇ ਦਖਣੀ ਪੂਰਬ ਅਤੇ ਅਤੇ ਪਾਰੇ ਖੇਤਰ 2276, 2277, 2278, 2279, 2280 ਤੇ ਮੁਕਾਬੀ ਹੁੰਦੀ ਹੋਈ ਜਗਾ ਅਤੇ ਬਿੰਦੂ "ਏ 35" ਤੇ ਸਮਾਪਤ ਹੁੰਦੀ ਹੈ ।

16. ਜਿਸ ਬੀਤ ਅਤੇ ਸੀਮਾ :– ਜਿਸ ਬਿੰਦੂ "ਏ 35" ਤੋਂ ਅੱਗੇ ਨਕਸ਼ੇ ਵਾਲਾਮੁੰਦਰ ਅਤੇ ਦੱਖਣੀ ਪਰਿਮਾਣ ਜਿਲਾਂ ਦਾ ਜਿਲਾ ਹੈ ਅਤੇ ਇਸੀ ਜਗਾ ਤੇ ਦਖਣੀ ਪੂਰਬ ਅਤੇ ਅਤੇ ਪਾਰੇ ਖੇਤਰ 2280, 2281, 2282, 2283, 2284, 2285 ਤੇ ਮੁਕਾਬੀ ਹੁੰਦੀ ਹੋਈ ਜਗਾ ਅਤੇ ਬਿੰਦੂ "ਏ 36" ਤੇ ਸਮਾਪਤ ਹੁੰਦੀ ਹੈ ।

17. ਜਿਸ ਬੀਤ ਅਤੇ ਸੀਮਾ :– ਜਿਸ ਬਿੰਦੂ "ਏ 36" ਤੋਂ ਅੱਗੇ ਨਕਸ਼ੇ ਵਾਲਾਮੁੰਦਰ ਅਤੇ ਦੱਖਣੀ ਪਰਿਮਾਣ ਜਿਲਾਂ ਦਾ ਜਿਲਾ ਹੈ ਅਤੇ ਇਸੀ ਜਗਾ ਤੇ ਦਖਣੀ ਪੂਰਬ ਅਤੇ ਅਤੇ ਪਾਰੇ ਖੇਤਰ 2285, 2286, 2287, 2288, 2289, 2290 ਤੇ ਮੁਕਾਬੀ ਹੁੰਦੀ ਹੋਈ ਜਗਾ ਅਤੇ ਬਿੰਦੂ "ਏ 37" ਤੇ ਸਮਾਪਤ ਹੁੰਦੀ ਹੈ ।

18. ਜਿਸ ਬੀਤ ਅਤੇ ਸੀਮਾ :– ਜਿਸ ਬਿੰਦੂ "ਏ 37" ਤੋਂ ਅੱਗੇ ਨਕਸ਼ੇ ਵਾਲਾਮੁੰਦਰ ਅਤੇ ਦੱਖਣੀ ਪਰਿਮਾਣ ਜਿਲਾਂ ਦਾ ਜਿਲਾ ਹੈ ਅਤੇ ਇਸੀ ਜਗਾ ਤੇ ਦਖਣੀ ਪੂਰਬ ਅਤੇ ਅਤੇ ਪਾਰੇ ਖੇਤਰ 2290, 2291, 2292, 2293, 2294, 2295 ਤੇ ਮੁਕਾਬੀ ਹੁੰਦੀ ਹੋਈ ਜਗਾ ਅਤੇ ਬਿੰਦੂ "ਏ 38" ਤੇ ਸਮਾਪਤ ਹੁੰਦੀ ਹੈ ।

19. ਜਿਸ ਬੀਤ ਅਤੇ ਸੀਮਾ :– ਜਿਸ ਬਿੰਦੂ "ਏ 38" ਤੋਂ ਅੱਗੇ ਨਕਸ਼ੇ ਵਾਲਾਮੁੰਦਰ ਅਤੇ ਦੱਖਣੀ ਪਰਿਮਾਣ ਜਿਲਾਂ ਦਾ ਜਿਲਾ ਹੈ ਅਤੇ ਇਸੀ ਜਗਾ ਤੇ ਦਖਣੀ ਪੂਰਬ ਅਤੇ ਅਤੇ ਪਾਰੇ ਖੇਤਰ 2295, 2296, 2297, 2298, 2299, 2300 ਤੇ ਮੁਕਾਬੀ ਹੁੰਦੀ ਹੋਈ ਜਗਾ ਅਤੇ ਬਿੰਦੂ "ਏ 39" ਤੇ ਸਮਾਪਤ ਹੁੰਦੀ ਹੈ ।

20. ਜਿਸ ਬੀਤ ਅਤੇ ਸੀਮਾ :– ਜਿਸ ਬਿੰਦੂ "ਏ 39" ਤੋਂ ਅੱਗੇ ਨਕਸ਼ੇ ਵਾਲਾਮੁੰਦਰ ਅਤੇ ਦੱਖਣੀ ਪਰਿਮਾਣ ਜਿਲਾਂ ਦਾ ਜਿਲਾ ਹੈ ਅਤੇ ਇਸੀ ਜਗਾ ਤੇ ਦਖਣੀ ਪੂਰਬ ਅਤੇ ਅਤੇ ਪਾਰੇ ਖੇਤਰ 2300, 2301, 2302, 2303, 2304, 2305 ਤੇ ਮੁਕਾਬੀ ਹੁੰਦੀ ਹੋਈ ਜਗਾ ਅਤੇ ਬਿੰਦੂ "ਏ 40" ਤੇ ਸਮਾਪਤ ਹੁੰਦੀ ਹੈ ।

21. ਜਿਸ ਬੀਤ ਅਤੇ ਸੀਮਾ :– ਜਿਸ ਬਿੰਦੂ "ਏ 40" ਤੋਂ ਅੱਗੇ ਨਕਸ਼ੇ ਵਾਲਾਮੁੰਦਰ ਅਤੇ ਦੱਖਣੀ ਪਰਿਮਾਣ ਜਿਲਾਂ ਦਾ ਜਿਲਾ ਹੈ ਅਤੇ ਇਸੀ ਜਗਾ ਤੇ ਦਖਣੀ ਪੂਰਬ ਅਤੇ ਅਤੇ ਪਾਰੇ ਖੇਤਰ 2305, 2306, 2307, 2308, 2309, 2310 ਤੇ ਮੁਕਾਬੀ ਹੁੰਦੀ ਹੋਈ ਜਗਾ ਅਤੇ ਬਿੰਦੂ "ਏ 41" ਤੇ ਸਮਾਪਤ ਹੁੰਦੀ ਹੈ ।

[ਫਾਇਲ ਨੰ. 43015/2/2011-ਓ.ਐਮ.ਜੀ.(ਭਾ.ਖ.ਪ.)]

ਏ. ਕੇ. ਸੇਠ, ਅਵਰ ਸਚਿਵ

New Delhi, the 12th June, 2012

S.O. 2046.— Whereas by the notification of the Government of India in the Ministry of Coal number S.O. 2267 dated 29th August, 2011 issued under sub-Section (1) of Section 4 of the Coal Bearing Areas (Acquisition and Development) Act, 1957 (20 of 1957) (hereinafter referred to as the said Act) and published in the Gazette of India, Part-II, Section 3, sub-section (ii), dated 27th August, 2011, the Central Government gave notice of its intention to prospect for coal in 175.577 hectares (approximately) or 1934.97 acres (approximately) of the land in the locality specified in the schedule appended to the said notification;

And, whereas the Central Government is satisfied that coal is obtainable in the said lands and has decided to acquire the whole of the said lands;

Now, therefore, in exercise of the powers conferred by sub-section (1) of Section 7 of the Coal Bearing Areas (Acquisition and Development) Act, 1957 (20 of 1957), the Central Government hereby gives notice of its intention to acquire the land measuring 147.65 hectares (approximately) or 1724.73 acres (approximately) as described in the schedule appended hereto.

Note 1. The plan bearing number NTPC/CHHA/CIV/CBA/PROJ/011 dated the 28th December, 2011 of the area covered by this notification may be inspected at the office of the Deputy Commissioner, Kanjhwala (Additional charge at the office of the Coal Controller), Council House Street, Kolkata – 700001 or at the office of the Executive Director (Projects), NTPC Limited, Upper Kaldam, Nagaur Road, Jhanjhrya – 321 611 (Rajasthan) or at the office of the ED (Fuel Security), NTPC Limited, Plot no. 12, Sector-24, Noida-201301 or at the office of the Chief General Manager (Commercial & Contracts), Central Mine Planning & Design Institute, Gondwana Place, Kanke Road, Ranchi (Jharkhand) or at the office of the Coal Controller, 1, Council House Street, Kolkata-700001 or at the office of the District Collector & Magistrate, Barmer (Rajasthan).

SANJIV KUMAR SINGH
Recognised Qualified [illegible]
No. 3401 [illegible] PAWAN DEV JAMTA
Attested [illegible]

Note 2 : Attention is hereby invited to the provision of Section 8 of the said Act which provides as follows:

Objections to acquisition:

"(1) Any person interested in any land in respect of which a notification under section 7(1) has been issued may, within thirty days of the issue of the notification, object to the acquisition of the whole or any part of the land or of any rights in or over such land.

Explanation :-

(1) It shall not be an objection within the meaning of this section for any person to say that he himself desires to undertake mining operations in the land for the production of the coal and those operations should not be undertaken by the Central Government or by any other person.

(2) Every objection under sub-section (1) shall be made to the Competent Authority in writing and the Competent Authority shall give the objector an opportunity of being heard either in person or by a legal practitioner and shall, after hearing all such objections and after making such further inquiry, if any, as he thinks necessary, either submit a report in respect of the land which has been notified under sub-section (1) of Section 7 or of rights in or over such land, or make different reports in respect of different parcels of such lands or of rights in or over such land, to the Central Government containing his recommendations on the objections together with the record of proceedings held by him for the purpose of this section."

(3) For the purpose of this section, a person shall be deemed to be interested in land who would be entitled to claim an interest in compensation if the land or any rights in or over such land were acquired under this Act."

Note 3: The Coal Controller, 1, Council House Street, Kolkata-700001, has been appointed by the Central Government as the Competent Authority under the Section 3 of the said Act vide notification number S.O. 3629, published in part-II Section 3, sub-section (ii) of the Gazette of India dated 9th September, 2006, which was subsequently amended vide notification S.O. 2307, published in part-II Section 3, sub-section (ii) of the Gazette of India dated 13th August, 2010.

SCHEDULE

Pakri Barwadih Coal Mining Block Phase-V
North Karanpura Coalfields
District: Hazaribagh, Jharkhand

(plan bearing number MCPL/CB/2013/CA-IV/CTE/AMD/[illegible], dated the 5th December, 2013)

All Rights:

(A) REVENUE LAND:

Sl. No.	Name of Village	Thana No.	Name of Thana	District	Area (approximately) Acres	Hectares	Remarks
1	[illegible]	52	[illegible]	Hazaribagh	7.29	[illegible]	Part
2	[illegible]	53	[illegible]	Hazaribagh	36.50	[illegible]	Part
3	[illegible]	42	[illegible]	Hazaribagh	85.82	[illegible]	Part
4	[illegible]	43	[illegible]	Hazaribagh	22.10	[illegible]	Part
5	[illegible]	44	[illegible]	Hazaribagh	33.25	[illegible]	Part
6	[illegible]	45	[illegible]	Hazaribagh	5.07	[illegible]	Part
7	[illegible]	46	[illegible]	Hazaribagh	52.43	[illegible]	Part
8	[illegible]	56	[illegible]	Hazaribagh	208.46	[illegible]	Part
			Total (approximately)		444.92	180.08	

SANJIV KUMAR SINGH, I.A.S. (RETD.)
Recognised Competent Authority
No. 34011(1)(1)/2006-CA-I
Ministry of Coal, Govt. of India

2081 GI/13—11

(II) FOREST LAND (Notified/ Un-Notified/ Jungle / Bush)

Sl. No.	Village	Khasra number	Tehsil	District	Area (approximately) Hectare	Area (approximately) Acre	Remarks
1	Bicha	31	Kanadori	Hanumangarh	4.48	10.00	Part
2	Kundalsar	53	Kanadori	Hanumangarh	20.31	49.86	Part
3	Jaswana	02	Kanadori	Hanumangarh	302.28	690.63	Part
4	Jakhra	43	Kanadori	Hanumangarh	6.50	15.90	Part
5	Ramana	44	Kanadori	Hanumangarh	10.95	26.57	Part
6	Nawanbh	45	Kanadori	Hanumangarh	30.13	73.00	Part
7	Sirsa	46	Kanadori	Hanumangarh	31.68	77.07	Part
8	Other Reservable	56	Nohar/Pilibanga	Hanumangarh	8.52	11.87	Part
			Total (approximately)		513.86	773.42	

SUMMARY

(A) TOTAL REVENUE LAND: 260.94 hectares (approximately) or 771.01 acres (approximately)

(B) TOTAL FOREST LAND: 513.86 hectares (approximately) or 773.42 acres (approximately)

(GRAND TOTAL (A+B)): 607.94 hectares (approximately) or 1724.72 acres (approximately)

LIST OF REVENUE PLOTS TO BE ACQUIRED:

1. Village Bicha - 60/P, 61, 64/P, 65 to 67, 69/P, 47/P, 83, 86, 88 to 100, 104/P, 107/P, 108, 109, 110/P, 111/P, 112/P, 127/P, 128, 123, 124/P;

2. Village Kundalsar - 185/P, 186, 190, 191/P to 196, 196/2, 211, 213, 239, 240/2, 241 to 254, 255/P, 256, 257, 258, 259/P, 45/P, 46/P, 47/P, 48/P, 49/P, 50/P, 51/P, 52/P, 53/P, 54/P, 55/P, 56/P to 60/1, 60/2, 60/3, 47/1/P, 47/2/P, 47/3/P, 47/4/P to 48/1, 48/2/P, 48/3 to 90/1, 90/2 to 92/1, 93/1/P, 93/2, 94/P, 95/P to 97/P, 98/P to 100/P, 101/P, 102/P, 103/P, 104/P, 105/P, 106/P, 107/P, 108/P, 109/P, 110/P, 111/P, 112/P, 113/P to 116/P, 117/P, 118/P, 119/P, 120/P, 121/P, 122/P, 123/P, 124/P, 125/P, 126/P, 127/P, 128/P, 129/P, 130/P, 131/P, 132/P, 133/P, 134/P, 135/P, 136/P, 137/P, 138/P, 139/P, 140/P, 141/P, 142/P, 143/P, 144/P, 145/P, 146/P, 147/P, 148/P, 149/P, 150/P, 151/P, 152/P, 153/P, 154/P, 155/P,

i) Village Sarna : 308, 1447, 165, 249, 345, 347, 391, 396

ii) Village Patel Dharwada : 1447, 2464

Boundary Descriptions of the area to be notified:

Boundary Description for "Part -A"

(1) From A-A1	The line starts at point 'A' located on North-West corner of plot no. 414 of village Kundalini which marches towards North-East corner of the village Kundalini passing through plot numbers 454, 455, 454, 453, 452, 448, 436, 447, 468, 471, 472, 255, 248, 192, 194, 185, 197, 199, 200 and ends at point 'A1' of the village Kundalini.
(2) From A1-A2	The line starts at point 'A1' located on North corner of plot no. 200 of village Kundalini which marches towards North East of the village Nawadih passing through plot numbers 422 and 505 and ends at point 'A2' of the village Nawadih.
(3) From A2-A3	The line starts at point 'A2' located on North corner of village Nawadih which marches towards North East of the village Nawadih passing through plot number 505 and ends at point 'A3' of the village Nawadih.
(4) From A3-A4	The line starts at point 'A3' located on North corner of village Nawadih which marches towards North East of the village Nawadih passing through plot numbers 503, 473, 484, 483, 484, 485, 468, 487, 488, 489, 491, 492, 493, 494, 495, 496, 498, 499, 501 and ends at point 'A4' of the village Nawadih.
(5) From A4-A5	The line starts at point 'A4' located on North-East corner of village Nawadih which marches towards East of the village Hesatola passing through plot numbers 13, 25, 12, 24, 23 and ends at point 'A5' of the village Hesatola.
(6) From A5-A6	The line starts at point 'A5' located on North corner of village Hesatola which marches towards North East of the village Hesatola passing through plot numbers 29, 6 and 29 and ends at point 'A6' of the village Hesatola.
(7) From A6-A7	The line starts at point 'A6' located on North corner of village Hesatola passing towards North East of the village Hesatola passing through plot number 22 and ends at point 'A7' of the village Hesatola.
(8) From A7-A8	The line starts at point 'A7' located on North-East corner of village Hesatola which marches towards North East of the village Sarna passing through plot numbers 58, 147, 149, 152, 161, 165 and 166 and ends at point 'A8' of the village Sarna.
(9) From A8-A9	The line starts at point 'A8' located on North corner of village Sarna which marches towards North West of the village Sarna passing through plot numbers 145, 149, 150, 144, 137 and ends at point 'A9' of the village Sarna.
(10) From A9-A10	The line starts at point 'A9' located on North corner of village Sarna which marches towards East of the village Sarna passing through plot numbers 133, 113, 142, 144, 243 and ends at point 'A10' of the village Sarna.
(11) From A10-A11	The line starts at point 'A10' located on North corner of village Sarna which marches towards North East of the village Sarna passing through plot number 325 and ends at point 'A11' of the village Sarna.
(12) From A11-A1	The line starts at point 'A11' located on South East corner of village Sarna which marches towards North West of the village Nawadih passing through plot numbers 243, 247, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 264, 265, 266, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307,

(16) Line A15-A16: The line starts at point 'A 15' located on East corner of village Barnatu which moves towards South of the village Barnatu passing through plot number 1668 and ends at point 'A16' of the village Barnatu.

(17) Line A16-A17: The line starts at point 'A16' located on South-East corner of village Barnatu which moves towards South-West of the village Barnatu passing through plot numbers 1686 and 1685 and ends at point 'A17' of the village Barnatu.

(18) Line A17-A18: The line starts at point 'A 17' located on South-East corner of village Barnatu which moves towards South of the village Barnatu passing through plot number 1643 and ends at point 'A 18' of the village Barnatu.

(19) Line A18-A19: The line starts at point 'A 18' located on South corner of village Barnatu which moves towards West of the village Barnatu passing through plot number 1643 and ends at point 'A 19' of the village Barnatu.

(20) Line A19-A20: The line starts at point 'A19' located on South corner of village Barnatu which moves towards North of village Barnatu passing through plot numbers 1643 and 1631 and ends at point 'A20' of village Barnatu.

(21) Line A20-A21: The line starts at point 'A 20' located on South corner of village Barnatu which moves towards South-West of the village Barnatu passing through plot number 232 and ends at point 'A21' of the village Barnatu.

(22) Line A21-A22: The line starts at point 'A21' located on South-West corner of village Barnatu which moves towards North-West passing through plot number 62 and ends at point 'A22' of the village Barnatu.

(23) Line A22-A23: The line starts at point 'A22' located on South-West corner of village Barnatu which moves towards South-West of the village Barnatu passing through plot number 63 and ends at point 'A23' of the village Barnatu.

(24) Line A23-A24: The line starts at point 'A23' located on South-West corner of village Barnatu which moves towards North-West of the village Barnatu passing through number 63 and ends at point 'A24' of the village Barnatu.

(25) Line A24-A25: The line starts at point 'A24' starting at the West side of village Barnatu and passing in South-West direction through village Jabra passing through plot numbers 110, 113, 109, 108, 107, 98 and ends at point 'A25' of village Barnatu.

(26) Line A25-A26: The line starts at point 'A25' located on South-West corner of village Jabra which moves towards South-West of village Kandaber passing through plot numbers 682, 683, 684 and ends at point 'A26' of village Kandaber.

(27) Line A26-A27: The line starts at point 'A26' located on South corner of village Kandaber which moves towards North-West of the village Belta passing through plot numbers 60, 1975, 62, 63, 64, 66, 69 and 60 and ends at point 'A27' of the village Belta.

(28) Line A27-A28: The line starts at point 'A27' located on North-West corner of village Belta which moves towards North-West of the village Kandaber passing through plot numbers 484, 519, 520, 521, 513, 515, 484 and ends at point 'A28' of the village Kandaber.

(29) Line A28-A29: The line starts at point 'A28' located on West corner of village Kandaber which moves towards North-West of the village Belta passing through plot numbers 60, 121, 88, 121, 120, 119, 105, 106, 107, 114, 110, 141 and ends at point 'A29' of the village Belta.

(30) Line A29-A: The line starts at point 'A29' located on North-West corner of village Belta which moves towards North-West of the village Kandaber passing through plot numbers 484, 454, 456 and ends at point 'A' of the village Kandaber.

Boundary Description for "Part -B"

(1) Line B-B1: The line starts at point 'B' located on North-West of village Pakri Barwadih which moves towards East corner of the village Pakri Barwadih passing through plot numbers 1950, 1953 and ends at point 'B1' of the village Pakri Barwadih.

(2) Line B1-B2: The line starts at point 'B1' located on North-West corner of village Pakri Barwadih which moves towards North-East of the village Pakri Barwadih passing through plot numbers 1931, 1923, 1939 and ends at point 'B2' of the village Pakri Barwadih.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34611/(15)/2009-CPAM
Ministry of Coal, Govt. of India

CHAMAN DEV JAMTA

(1)Line (S2-S3)	The line starts at point "S2" located on North-West corner of village Pakri Barwadih which runs towards South-East of the village Pakri Barwadih passing through plot numbers 1918, 1919, 1920 and ends at point "S3" of the village Pakri Barwadih
(2)Line (S3-S4)	The line starts at point "S3" located on North-West corner of village Pakri Barwadih which runs towards South of the village Pakri Barwadih passing through plot number 1920 and ends at point "S4" of the village Pakri Barwadih
(3)Line (S4-S5)	The line starts at point "S4" located on North-West corner of village Pakri Barwadih which runs towards South-East village Pakri Barwadih through plot numbers 1918, 1923, 1917, 1912 and ends at point "S5" of the village Pakri Barwadih
(4)Line (S5-S6)	The line starts at point "S5" located on North-West corner of village Pakri Barwadih which runs towards North of the village Pakri Barwadih passing through plot numbers 1935, 1931, 1940, 1941, 1942, 1946, 1947, 1948, 1945 and ends at point "S6" of the village Pakri Barwadih
(5)Line (S6-S7)	The line starts at point "S6" located on North-West corner of village Pakri Barwadih passing towards North of the village Pakri Barwadih passing through plot numbers 1949, 1950 and ends at point "S7" of the village Pakri Barwadih
(6)Line (S7-S8)	The line starts at point "S7" located on North-West corner of village Pakri Barwadih which runs towards South-East of the village Pakri Barwadih passing through plot numbers 1950, 1964, 1961, 1967 and ends at point "S8" of the village Pakri Barwadih
(7)Line (S8-S9)	The line starts at point "S8" located on North-West corner of village Pakri Barwadih which runs towards North-East of the village Pakri Barwadih passing through plot numbers 1967, 1962, 1965, 1957 and ends at point "S9" of the village Pakri Barwadih
(8)Line (S9-S10)	The line starts at point "S9" located on North-West corner of village Pakri Barwadih which runs towards South-East of the village Pakri Barwadih passing through plot numbers 1957, 1753 and ends at point "S10" of the village Pakri Barwadih
(9)Line (S10-S11)	The line starts at point "S10" located on North-West corner of village Pakri Barwadih which runs towards South-East of the village Pakri Barwadih passing through plot numbers 1753, 1742, 1741, 2125 and ends at point "S11" of the village Pakri Barwadih
(10)Line (S11-S12)	The line starts at point "S11" located on North-West corner of village Pakri Barwadih which runs towards North-East of the village Pakri Barwadih passing through plot numbers 2119, 2125, 2130, 1958, 1954 and ends at point "S12" of the village Pakri Barwadih
(11)Line (S12-S13)	The line starts at point "S12" located on North corner of village Pakri Barwadih which runs towards East of the village Pakri Barwadih passing through plot numbers 1954, 1937, 1936, 1944, 1933, 1932 and ends at point "S13" of the village Pakri Barwadih
(12)Line (S13-S14)	The line starts at point "S13" located on North corner of village Pakri Barwadih which runs towards South-East of the village Pakri Barwadih passing through plot numbers 1932 and 1929 and ends at point "S14" of the village Pakri Barwadih
(13)Line (S14-S15)	The line starts at point "S14" located on North-East corner of village Pakri Barwadih which runs towards South-East of the village Pakri Barwadih passing through plot numbers 1929, 1931 and ends at point "S15" of the village Pakri Barwadih
(14)Line (S15-S16)	The line starts at point "S15" located on East corner of village Pakri Barwadih which runs towards South-East of the village Pakri Barwadih passing through plot number 1961 and ends at point "S16" of the village Pakri Barwadih
(15)Line (S16-S17)	The line starts at point "S16" located on East corner of village Pakri Barwadih which runs towards South-East of the village Pakri Barwadih passing through plot numbers 1941, 1932 and ends at point "S17" of the village Pakri Barwadih
(16)Line (S17-S18)	The line starts at point "S17" located on East corner of village Pakri Barwadih which runs towards South-East of the village Pakri Barwadih passing through plot numbers 1932, 1929 and ends at point "S18" of the village Pakri Barwadih

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 340/1(11)/2009-CLD
Ministry of Coal, Govt. of India

For M/s. JAYAN DEV JANTA
Director
EOC, A-65A, Sector-24, Noida-201301 (U.P.)

(19) Line B18-B19: The line starts at point 'B 18' located on East corner of village Pakri Barwadih which moves towards South-West of the village Pakri Barwadih passing through plot number 1449 and ends at point 'B 19' of the village Pakri Barwadih.

(20) Line B19-B20: The line starts at point 'B 19' located on South-East corner of village Pakri Barwadih which moves towards South-West of village Pakri Barwadih passing through plot number 1449 and ends at point 'B20' of village Pakri Barwadih.

(21) Line B20-B21: The line starts at point 'B 20' located on South-East corner of village Pakri Barwadih which moves towards South-West of the village Pakri Barwadih passing through plot number 1449 and ends at point 'B21' of the village Pakri Barwadih.

(22) Line B21-B22: The line starts at point 'B21' located on South-East corner of village Pakri Barwadih which moves towards North-West of the village Pakri Barwadih passing through plot number 1449 and ends at point 'B22' of the village Pakri Barwadih.

(23) Line B22-B23: The line starts at point 'B 22' located on South-East corner of village Pakri Barwadih which moves towards South of the village Pakri Barwadih passing through plot number 1449 and ends at point 'B23' of the village Pakri Barwadih.

(24) Line B23-B24: The line starts at point 'B23' located on South-East corner of village Pakri Barwadih which moves towards West of the village Pakri Barwadih passing through numbers 1449, 2464 and ends at point 'B24' of the village Pakri Barwadih.

(25) Line B24-B25: The line starts at point 'B24' located at the South-East side of village Pakri Barwadih and passing in North-East direction through village Pakri Barwadih passing through plot number 2464 and ends at point 'B25' of village Pakri Barwadih.

(26) Line B25-B26: The line starts at point 'B25' located on South-East corner of village Pakri Barwadih which moves towards North-West of village Pakri Barwadih passing through plot numbers 2464, 2430, 2436, 2439 and ends at point 'B26' of village Pakri Barwadih.

(27) Line B26-B27: The line starts at point 'B26' located on South corner of village Pakri Barwadih which moves towards South-West of the village Pakri Barwadih passing through plot numbers 2376, 2375, 2468 and ends at point 'B27' of the village Pakri Barwadih.

(28) Line B27-B28: The line starts at point 'B27' located on South corner of village Pakri Barwadih which moves towards West of the village Pakri Barwadih passing through plot numbers 2468, 2334, 2369 and ends at point 'B28' of the village Pakri Barwadih.

(29) Line B28-B29: The line starts at point 'B28' located on South corner of village Pakri Barwadih which moves towards North-West of the village Pakri Barwadih passing through plot numbers 2368, 2367 and ends at point 'B29' of the village Pakri Barwadih.

(30) Line B29-B30: The line starts at point 'B29' located on South corner of village Pakri Barwadih which moves towards North-West of the village Pakri Barwadih passing through plot numbers 2362, 2361, 2356, 2358, 2355, 2354 and ends at point 'A 58' of the village Pakri Barwadih.

(31) Line B30-B31: The line starts at point 'B30' located on Northeastern of village Pakri Barwadih which moves towards North-West of the village Pakri Barwadih passing through plot numbers 2324, 2323, 2336, 2273, 2274, 2253 and ends at point 'A31' of the village Pakri Barwadih.

(32) Line B31-B32: The line starts at point 'B31' located on South-West corner of village Pakri Barwadih which moves towards North-East of the village Pakri Barwadih passing through plot numbers 2228, 2224 and ends at point 'A32' of the village Pakri Barwadih.

(33) Line B32-B33: The line starts at point 'B32' located on South-West corner of village Pakri Barwadih which moves towards North-West of the village Pakri Barwadih passing through plot numbers 2224, 2230, 2301 and ends at point 'A33' of the village Pakri Barwadih.

(34) Line B33-B34: The line starts at point 'B33' located on South-West corner of village Pakri Barwadih which moves towards North-East of the village Pakri Barwadih passing through plot numbers 2301, 2300 and ends at point 'A34' of the village Pakri Barwadih.

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 3423/(15)/2009-CPAM
Ministry of Coal, Govt. of India

(iii) the line starts at point 'B34' located on South-West corner of village Pakri Barwadih which passes towards North-West of the village Pakri Barwadih passing through plot numbers 2263, 2251, 2230 and ends at point 'A33' of the village Pakri Barwadih.

(iv) the line starts at point 'B35' located on South-West corner of village Pakri Barwadih which passes towards North-West of the village Pakri Barwadih passing through plot numbers 2205, 2210, 2216, 2017, 2017, 2028, 2025 and ends at point 'A30' of the village Pakri Barwadih.

(v) the line starts at point 'B36' located on South-West corner of village Pakri Barwadih which passes towards South-West of the village Pakri Barwadih passing through plot numbers 2029, 2025, 2025, 2024, 2071, 2020 and ends at point 'A31' of the village Pakri Barwadih.

(vi) the line starts at point 'B37' located on South-West corner of village Pakri Barwadih which passes towards North-West of the village Pakri Barwadih passing through plot numbers 2020, 2019, 1950 and ends at point 'A38' of the village Pakri Barwadih.

(vii) the line starts at point 'B38' located on South-West corner of village Pakri Barwadih which passes towards North-West of the village Pakri Barwadih passing through plot numbers 1950 and ends at point 'A39' of the village Pakri Barwadih.

(viii) the line starts at point 'B39' located on West corner of village Pakri Barwadih which passes towards North-West of the village Pakri Barwadih passing through plot numbers 1950 and ends at point 'H' of the village Pakri Barwadih.

[F. No. 43015/2/2011-RW(V)]

A. K. JAIN, Under Secy.

पेट्रोलियम और प्राकृतिक गैस मंत्रालय

नई दिल्ली, 11 जून, 2013

का. आ. 3[1]—केन्द्रीय सरकार, पेट्रोलियम और खनिज पाइपलाइन (भूमि में अर्जन के अधिकार का प्रार्जन) अधिनियम, 1962 की धारा 3 के उपधारा (1) के अनुसरण में, नीचे दी गई अनुसूची में यथा, वे जिलाधिकारी अधिसूचित करें, उक्त अनुसूची में वर्णित 3 के की उपलब्धि प्रतिबंधित में जिलाधिकारी ऐसे व्यक्ति से उक्त अधिनियम के उपबंध पाइप लाइनों के कुशली वह निर्धारित करने के लिए आवश्यक समझे है, अर्थात :

अनुसूची

प्रतिबंधित का नाम और पता	अधिसूचित का पता
(1)	(2)

शेषनाथ सिंह, सीनियर

ए. के. जैन, उपसचिव

[फा. सं. 43015/2/2011-आरडब्ल्यू (V)]

ए. के. जैन, अवर सचिव

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-GI
Ministry of Coal, Govt. of India
पवन देव जोशी/PAWAN DEV JOSHI
वरिष्ठ प्रबंधक (सर्वेक्षण)
Senior Manager (Surveyor)
ONGC के लिए निर्देश / INTIC LIMITED
C-24, Sector-24, Noida-201301 (U.P.)

पवन देव जामदा/PAWAN DEV JAMTA
[illegible]
Dep. [illegible]
[illegible] LIMITED
EDC, A-4A, Sector-24, Noida-201301 (U.P.)

ANNEXURE-V

STATEMENT SHOWING LATITUDE, DEPARTURE, R.L., TOTAL DEPTH, DATE OF COMMENCEMENT & CLOSURE OF BOREHOLES

DRILLED BY MECL

BLOCK: PAKRI-BARWADIH
COAL FIELD: NORTH KARANPURA

DISTRICT: HAZARIBAGH
STATE: JHARKHAND

SL NO	BOREHOLE NO	R.L. (MTS.)	TOTAL DEPTH DRILLED (M)	LATITUDE (M)	DEPARTURE (M)	DATE OF COMMENCEMENT	DATE OF CLOSURE
1	MNPB-1	442.61	53.00	1101042.058	3119068.303	09/12/06	15/12/06
2	MNPB-2	438.27	80.50	1100038.217	3119341.299	19/12/06	26/12/06
3	MNPB-3	451.79	173.00	1101338.780	3119258.150	26/12/06	12/01/07
4	MNPB-4	435.81	179.00	1101239.416	3119613.368	19/01/07	08/02/07
5	MNPB-5	447.63	125.50	1101596.532	3119949.193	23/01/07	08/02/07
6	MNPB-6	450.52	77.00	1101489.165	3119486.431	10/02/07	12/02/07
7	MNPB-7	448.46	85.00	1100216.814	3119865.827	11/02/10	23/02/10
8	MNPB-8	453.47	74.00	1101977.554	3119166.083	18/02/10	25/02/10
9	MNPB-9	464.19	22.00	1100222.826	3119448.285	03/03/10	05/03/10
10	MNPB-10	458.34	71.00	1101850.948	3118536.183	04/03/10	11/03/10
11	MNPB-11	458.95	101.00	1102179.013	3118494.674	08/03/10	17/03/10
12	MNPB-12	458.22	106.00	1101977.564	3118354.567	12/03/10	18/03/10
13	MNPB-13	465.87	47.00	1102566.941	3118920.159	19/03/10	24/03/10
14	MNPB-14	452.16	32.00	1101279.010	3118706.598	20/03/10	28/03/10
15	MNPB-15	453.22	96.00	1101963.228	3119633.113	27/03/10	31/03/10
16	MNPB-16	463.33	27.00	1102147.138	3118056.396	28/03/10	31/03/10
17	MNPB-17	453.76	126.00	1101587.611	3118658.558	03/04/10	10/04/10
18	MNPB-18	450.52	140.00	1101888.066	3119481.134	04/04/10	16/04/10
19	MNPB-19	455.27	56.00	1101342.293	3118160.815	12/04/10	16/04/10
20	MNPB-20	460.46	77.00	1101804.602	3118590.562	17/04/10	21/04/10
21	MNPB-21	451.67	122.00	1101904.432	3119451.066	18/04/10	23/05/10
22	MNPB-22	441.29	300.40	1100322.994	3120705.914	29/04/10	23/05/10
23	MNPB-23	425.59	217.00	1098959.422	3120592.153	09/05/10	31/05/10
24	MNPB-24	434.80	236.40	1101196.691	3120709.353	06/06/10	14/07/10
25	MNPB-25	438.51	276.50	1100173.584	3120813.744	28/06/10	30/07/10
26	MNPB-26	438.31	318.00	1100435.175	3120866.544	22/07/10	29/08/10
27	MNPB-27	456.71	115.00	1101559.987	3118512.392	09/10/10	23/10/10
28	MNPB-28	446.22	281.00	1101007.190	3120221.200	12/01/12	05/03/12
29	MNPB-29	439.18	280.00	1100730.430	3120798.110	10/03/12	08/04/12
30	MNPB-30	455.18	175.00	1101993.230	3120199.530	16/03/12	12/04/12
31	MNPB-31	451.18	127.50	1101754.560	3119973.460	14/04/12	03/05/12
32	MNPB-32	434.59	169.60	1100394.490	3119963.820	17/04/12	30/04/12
33	MNPB-33	453.74	21.00	1101874.480	3120462.260	08/05/12	29/05/12

Sanjiv
SANJIV KUMAR SIN
Registered Qualified Pr
No. 34011/(15)/2009-Cl
Ministry of Civil, Govt. of Ind

Sanjiv
PANKAJ DEV JAMTA
Registered Qualified Pr
No. 34011/(15)/2009-Cl
Ministry of Civil, Govt. of Ind

STATEMENT SHOWING THE CO-ORDINATES AND REDUCED LEVELS OF BOREHOLES, PAKRI-BARWADIH BLOCK, NORTH KARANPURA CF.

Borehole No.	Latitude (m)	Departure (m)	R.L. (m)	Total Depth
EASTERN				
BOREHOLES DRILLED BY G.S.I.				
KB01	3778.22	28073.38	423.07	177.99
KB02	1069.58	28742.98	435.30	135.00
KB03	3909.13	28451.29	430.31	120.43
KB04	3491.32	27701.48	417.92	219.26
KB05	3069.11	28016.33	420.15	231.04
KB06	2449.20	30022.60	421.81	156.60
KB07	2701.21	29235.64	422.48	198.65
KB08	1911.35	29998.47	415.24	445.50
KB09	1957.19	28442.24	408.30	376.44
KB10	2188.30	27341.32	407.76	435.40
KB16	2169.83	28701.55	411.37	297.03
KB19	1789.41	28431.50	432.32	327.05
KB22	3109.07	27622.67	356.25	194.18
KB23	2499.35	27149.27	411.50	531.55
KB25	2004.20	28658.35	406.33	164.15
KB26	2532.54	29852.29	424.84	230.30
BOREHOLES DRILLED BY C.M.P.D.I.				
CMKPB01	28095.90	4460.03	426.58	155.50
CMKPB03	29008.82	5120.67	449.08	31.00
CMKPB12	27950.17	2224.46	408.93	351.00
CMKPB13	28211.11	2996.34	412.43	172.00
CMKPB14	28969.58	2997.87	414.22	194.50
CMKPB15	29117.02	3442.64	427.33	107.00
CMKPB30	28155.99	1959.50	402.31	543.00
CMKPB31	26769.55	1880.90	405.44	344.50
CNPB001	28580.67	4103.38	425.71	101.00
CNPB002	28501.25	4238.52	428.55	89.00
CNPB003	28240.23	4151.99	421.34	119.50
CNPB004	27971.41	4382.63	424.38	231.00
CNPB005	27931.94	3742.42	419.88	252.00
CNPB006	28260.19	3870.42	421.03	122.50
CNPB007	27968.16	4579.06	424.67	182.00
CNPB008	28248.97	3489.24	419.22	142.50
CNPB009	27768.70	3779.28	416.58	164.00
CNPB011	28583.22	3208.19	420.81	137.50
CNPB012	28755.34	2969.28	418.37	137.50
CNPB015	28583.98	2791.54	414.27	146.50
CNPB016	28471.40	2547.47	411.58	197.50
CNPB021	28735.28	2090.48	415.52	182.50
CNPB023	28958.53	3058.51	422.08	104.50

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

Borehole No.	Latitude (m)	Departure (m)	R.L. (m)	Total Depth
CNPB045	28602.06	3632.34	433.14	180.50
CNPB047	28730.93	4060.07	433.10	110.50
CNPB048	28464.16	3748.18	428.84	163.50
CNPB049	27952.60	4125.61	407.43	224.50
CNPB050	27251.15	2556.98	410.43	328.00
CNPB052	27627.18	4510.17	415.64	242.50
CNPB054	27844.05	4873.16	424.48	140.50
CNPB055	28273.78	4840.12	433.09	110.50
CNPB056	27698.48	4790.56	418.74	104.00
CNPB057	28222.87	4685.42	430.72	118.50
CNPB058	28175.41	4246.96	424.23	107.00
CNPB059	28112.79	4400.76	424.78	121.00
CNPB060	28216.34	5475.87	428.40	113.00
CNPB062	28878.41	3808.56	436.17	121.00
CNPB063	28849.61	3330.66	427.10	148.00
CNPB064	27755.25	4311.79	406.73	247.00
CNPB065	29254.63	3158.04	423.45	141.00
CNPB066	27962.06	5948.47	416.54	146.50
CNPB067	29173.65	2844.96	422.26	162.00
CNPB069	29839.66	2000.85	436.90	110.00
CNPB070	29614.02	2637.03	422.93	176.00
CNPB072	27061.81	2379.87	424.85	231.00
CNPB074	27851.89	3166.78	414.82	258.00
CNPB075	29091.83	2515.15	417.49	168.50
CNPB111	29094.28	2058.36	407.63	179.00
CNPB112	27936.65	2929.68	413.10	167.00
CNPB116	28553.75	4727.14	432.49	59.50
CNPB118	30516.57	2549.62	425.38	102.50
CNPB127	30057.08	2693.35	426.71	125.50
CNPB131	28864.96	2274.63	412.12	217.50
CNPB132	27567.81	2535.39	410.71	239.00
CNPB133	27095.61	4005.55	408.95	32.00

CENTRAL

BOREHOLES DRILLED BY G.S.I.

KB11	5098.09	26731.92	417.35	327.83
KB12	2651.33	26282.60	410.70	471.20
KB13	5029.08	25778.17	427.91	401.30
KB14	3718.31	25672.26	416.12	440.00
KB15	4398.11	27431.86	410.54	300.00
KB16	6553.49	25650.17	431.31	396.00
KB20	5876.57	26841.96	426.28	271.50
KB21	4411.27	26422.30	413.98	514.00

BOREHOLES DRILLED BY C.M.P.D.I.

CMKPB04	24540.47	6641.12	420.30	386.00
CMKPB07	25660.51	7830.74	443.93	173.00

2

SANJIV KUMAR SIN...
Recognised Qualified Pers...
No. 34011/(16)/2000-CI...
Ministry of Coal, Govt. of ...

प्रबल देव जाखड़ा/PAWAN DEV JAKHTA
Dep... General Manager (Co...)
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Borehole No.	Latitude (m)	Departure (m)	R.L. (m)	Total Depth
CMKPB11	28694.39	6827.97	432.19	246.00
CMKPB15	26755.71	3584.11	419.91	393.00
CMKPB17	27582.63	5696.52	419.30	173.20
CMKPB18	28467.84	7573.36	442.30	115.00
CMKPB19	27224.30	6959.03	433.39	47.00
CMKPB20	25048.84	6567.31	453.94	79.50
CMKPB21	28078.00	5532.71	429.17	14.00
CMKPB25	25938.01	4857.74	417.42	366.00
CMKPB27	25313.91	5789.61	425.14	422.00
CMKPB28	25478.54	5161.38	413.74	417.00
CMKPB29	25053.96	2901.70	407.12	635.00
CMKPB35	25149.00	7396.16	436.53	300.00
CMKPB37	26244.78	5795.21	425.01	355.00
CNPB010	27190.35	4721.27	418.77	214.00
CNPB013	27012.78	4668.01	418.47	204.00
CNPB014	28869.55	4878.48	416.57	188.00
CNPB015	27099.99	5116.43	419.38	211.00
CNPB017	27008.69	5413.11	419.60	233.00
CNPB019	28471.40	2547.47	420.03	245.00
CNPB020	27305.78	5327.81	418.96	172.00
CNPB022	28640.11	5235.38	427.57	164.00
CNPB024	26743.05	5787.92	422.06	158.50
CNPB025	28568.45	6219.60	427.78	236.00
CNPB026	27191.88	5775.45	421.46	175.00
CNPB027	26779.08	5723.46	434.78	168.50
CNPB028	28389.29	6228.77	429.39	214.00
CNPB029	29410.42	6518.82	428.84	222.00
CNPB030	25509.86	6040.58	430.50	148.50
CNPB031	28664.39	6088.59	429.17	279.09
CNPB032	26095.63	5799.40	429.58	179.50
CNPB033	26018.97	6479.89	428.54	236.00
CNPB034	26060.28	7063.80	437.68	158.50
CNPB035	25876.19	6717.60	432.18	236.00
CNPB036	25895.49	6320.17	432.07	282.50
CNPB037	25850.47	7085.52	438.35	185.50
CNPB038	25678.86	7058.96	435.06	197.00
CNPB039	25599.28	6665.12	432.44	267.00
CNPB040	25395.51	7322.19	438.56	155.00
CNPB041	26922.10	4260.23	417.42	308.00
CNPB042	26866.70	3850.38	415.97	336.50
CNPB043	25871.79	4054.80	419.35	260.00
CNPB044	26572.12	4931.25	415.77	248.00
CNPB046	27148.41	4376.46	414.82	283.00
CNPB051	26773.69	3872.27	417.80	343.50
CNPB053	25406.22	4517.65	415.67	300.00
CNPB061	27664.17	5621.20	410.71	158.00
CNPB068	27585.75	5204.50	415.92	209.50
CNPB071	27061.81	6662.79	421.42	158.50

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 3401(16)/2009-CPAM
Ministry of Coal, Govt. of India

Borehole No.	Latitude (m)	Departure (m)	R.L. (m)	Total Depth
CNPB073	27358.95	5792.91	421.70	203.50
CNPB078	25314.43	7727.89	442.35	221.00
CNPB080	25446.58	6482.13	453.93	175.00
CNPB081	25456.66	8077.35	447.77	265.00
CNPB083	25660.27	8306.69	449.95	142.00
CNPB085	25655.47	7598.67	449.51	197.00
CNPB086	26383.23	7599.96	451.09	132.00
CNPB087	26351.40	7604.03	446.24	167.00
CNPB088	26504.25	7004.09	436.50	200.00
CNPB089	26642.06	7581.89	446.01	138.50
CNPB090	26813.64	7100.28	439.43	95.00
CNPB116	26897.15	7303.42	443.22	143.00
CNPB117	27140.80	7235.24	429.18	69.00
CNPB120	27153.02	3497.51	407.94	335.00
CNPB122	27476.16	5607.13	431.46	88.00
CNPB123	27469.10	6241.55	427.60	209.00
CNPB124	27102.45	6468.36	432.22	211.00
CNPB128	26843.25	6543.20	434.19	236.00
CNPB129	26077.98	5639.85	422.15	299.00
CNPB130	26607.18	6920.45	433.72	172.00
CNPB135	25500.03	8243.17	450.17	125.00

WESTERN

BOREHOLES DRILLED BY G.S.I.

KB17	8132.64	23778.97	436.92	300.00
KB24	5471.78	23772.50	425.13	475.85

BOREHOLES DRILLED BY C.M.P.D.I.

CMKPB02	25710.51	4296.72	411.62	525.50
CMKPB05	25239.51	5637.54	455.00	156.50
CMKPB06	24234.20	7281.13	424.34	330.00
CMKPB08	23392.45	7964.09	428.79	259.00
CMKPB09	24729.48	7811.83	443.02	184.09
CMKPB10	23826.81	6517.58	432.96	305.00
CMKPB22	24262.02	8571.35	449.50	179.00
CMKPB23	24361.50	8155.46	428.25	431.00
CMKPB24	25014.54	7597.32	425.33	173.00
CMKPB25	22581.63	8121.94	430.72	182.00
CMKPB32	24985.52	4061.09	413.03	298.50
CMKPB33	25364.92	4823.21	417.80	451.00
CMKPB34	24148.79	4507.73	420.96	260.50
CMKPB35	24411.08	5249.51	423.88	418.00
CMKPB36	22962.75	8925.75	451.15	201.00
CNPB076	21087.79	6761.35	449.10	10.00
CNPB077	20742.28	6040.43	448.11	3.00
CNPB079	25055.54	8332.34	449.57	190.00
CNPB082	24788.02	7585.60	432.99	293.00
CNPB084	25035.71	8617.09	447.72	188.00

4

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CP
Ministry of Coal, Govt. of I



ANNEXURE XVI

CONSENT LETTER FROM THE APPLICANT

1. I hereby authorize Sri. Sanjiv Kumar Singh, RQP, Registration No. 34011 (15) 2009 – CPAM, to prepare the Revised Mining Plan and Mine Closure Plan (1st Revision) of Pakri Barwadih Coal Block located in the District of Hazaribagh of Jharkhand.

2. I hereby undertake that all the conditions so made in the Revised Mining Plan and Mine Closure Plan (1st Revision) by the recognized person be deemed to have been made with my knowledge and consent and shall be acceptable to me and binding on me in all respect.

Signature of the Applicant in full

(Authorized signatory)

Name in full: Sunil Jumde

Address: Coal Mining - Engg. 1st Floor, Core 7,
NTPC Limited, Lodhi Road,
New Delhi-110003
Tel: 011-24365709, 9650991561
Fax: 011-24367089
E-mail: suniljumde@ntpc.co.in

SANJIV KUMAR SI...
Recognised Qualified P...
No. 34011(15)/2009-C...
Ministry of Coal, Govt...

Place: New Delhi

ANNEXURE XVI- A

CERTIFICATE

1 Certified that the guidelines issued by MoC vide letter no. 34011/(48)/2009-CPAM dated 04.04.2011 have been observed in the preparation of Revised Mining Plan and Mine Closure Plan (1st Revision) in respect of Pakri Barwadih Coal Block, which has been allocated to M/s NTPC Limited, and whenever specific permissions are required, the applicant will approach the concerned authorities.

2 Certified that the information furnished in this Revised Mining Plan and Mine Closure Plan (1st Revision) are true and correct to the best of my knowledge.

Sanjiv Kr Singh

Sanjiv Kumar Singh
(Recognized Qualified Person)
RQP No. 34011 (15) 2009 – CPAM
Coal Mining Engg., 4th Floor, Core-5
NTPC Ltd, Scope Complex, 7
Institutional Area, Lodhi Road, New
Delhi-110003.
Tel: 011-24387669, 9650991396
Fax: 011-24367089
E-mail: sanjivkumarsingh01@ntpc.co.in

Singh
SANJIV KUMAR SIN...
Recognised Qualified P...
No. 34011/(15)/2009-C...
Ministry of Coal, Govt. o...

ANNEXURE XVI-B

CERTIFICATE

It is to certify that the area for which this Revised Mining Plan and Mine Closure Plan (1st Revision) has been prepared covers the area allocated to M/s. NTPC Limited by the Government of India vide letter No.13016/29/2003-CA-I dated 11th October, 2004.

Sanjiv Kumar Singh
(Recognized Qualified Person)
RQP No. 34011 (15) 2009 – CPAM
Coal Mining Engg., 4th Floor, Core-5
NTPC Ltd, Scope Complex, 7
Institutional Area, Lodhi Road, New
Delhi-110003.
Tel: 011-24387669, 9650991396
Fax: 011-24367089
E-mail: sanjivkumarsingh01@ntpc.co.in

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt.

पवन देव जमाता/PAWAN DEV JAMTA
[illegible]
[illegible] / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)



ANNEXURE XVI-C

CERTIFICATE

It is to certify that the Block area has been verified with the plan supplied by M/s CMPDIL and it is in line with the Plan issued by M/s CMPDI (Plan issued by M/s CMPDI is enclosed at Annexure XIX). The area covered in the Revised Mining Plan and Mine Closure Plan (1st Revision) does not encroach on any other Coal Block.

Sanjiv Kumar Singh
(Recognized Qualified Person)
RQP No. 34011 (15) 2009 – CPAM
Coal Mining Engg., 4th Floor, Core-5
NTPC Ltd, Scope Complex, 7
Institutional Area, Lodhi Road, New
Delhi-110003
Tel: 011-24387869,9650991396
Fax:011-24367089
E-mail: sanjivkumarsingh01@ntpc.co.in

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

ANNEXURE XVI-D

CERTIFICATE

It is to certify that the provisions of all relevant Rules and Regulations have been considered while preparing the Revised Mining Plan and Mine Closure Plan (1st Revision) of Pakri Barwadih Coal Block.

Sanjiv Kumar Singh
(Recognized Qualified Person)
RQP No. 34011 (15) 2009 – CPAM
Coal Mining Engg., 4th Floor, Core-5
NTPC Ltd, Scope Complex, 7
Institutional Area, Lodhi Road, New
Delhi-110003
Tel: 011-24387669,9650991396
Fax:011-24367089
E-mail: sanjivkumarsingh01@ntpc.co.in

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011(15)/2009-CPAM
Ministry of Coal, Govt. of India

ANNEXURE XVI- E

CERTIFICATE

It is to certify that the total quarriable coal down to Seam K-1 / Seam I (whichever is applicable), the lowest workable seams in the allocated Coal Block at Pakri Barwadih , is planned for extraction in the Revised Mining Plan and Mine Closure Plan (1st Revision) .

Sanjiv Kr. Singh

Sanjiv Kumar Singh
(Recognized Qualified Person)
RQP No. 34011 (15) 2009 – CPAM
Coal Mining Engg., 4th Floor, Core-5
NTPC Ltd, Scope Complex, 7
Institutional Area, Lodhi Road, New
Delhi-110003.
Tel: 011-24387669,9650991396
Fax:011-24367089
E-mail:sanjivkumarsingh018@ntpc.co.in

Singh
SANJIV KUMAR SINGH
Recognized Qualified Person
No. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

PAWAN DEV JAMTA



ANNEXURE XVI- F

CERTIFICATE

This is to certify that I have been duly authorised by NTPC Ltd. to prepare this Revised Mining Plan and Mine Closure Plan (1st Revision) of Pakri Barwadih Coal Block. I have a valid recognition from MoC under MCR 1960 to prepare Mining Plan and Mine Closure Plan and the provisions of all relevant rules and regulations have been considered while preparing the Mining Plan.

Sanjiv Kr. Singh

Sanjiv Kumar Singh
(Recognized Qualified Person)
RQP No. 34011 (15) 2009 – CPAM
Coal Mining Engg., 4th Floor, Core-5
NTPC Ltd, Scope Complex, 7
Institutional Area, Lodhi Road, New
Delhi-110003.
Tel: 011-24387669, 9650991396
Fax: 011-24367089
E-mail: sanjivkumarsingh01@ntpc.co.in

Sanjiv

SANJIV KUMAR SINGH
Recognised Qualified Person
Reg. 34011/(15)/2009-CPAM
Ministry of Coal, Govt. of India

ANNEXURE XVII

CERTIFICATE BY THE APPLICANT

Certified that the Revised Mining Plan (1st Revision) of Pakri Barwadih Coal Block has been prepared by Sh. Sanjiv Kumar Singh, Registration No.34011 (15) 2009 – CPAM of NTPC Limited, Coal Mining-Engg.4th Floor, Core-5, Scope Complex, Lodhi Road, New Delhi –110003 in full consultation with knowledge and consent of the undersigned.

The mine will be developed as per the approval of the Revised Mining Plan and Mine Closure Plan (1st Revision) of Pakri Barwadih Coal Block from Ministry of Coal and all other approvals as required will be obtained from relevant authorities.

21/01/16

Signature of the Applicant in full

(Authorized signatory)

Name in full: Sunil Jumde

Address: Coal Mining Engg. 1st Floor, Core 7,
NTPC Limited, Lodhi Road,
New Delhi-110003
Tel: 011-24365709, 9650991561
Fax: 011-24367089
E-mail: sunilsumde@ntpc.co.in

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011(15)/2009-CPAM
Ministry of Coal, Govt. of India

Place: New Delhi



एनटीपीसी
NTPC

एन टी पी सी लिमिटेड
(भारत सरकार का उद्यम)
NTPC Limited
A Govt. of India Enterprise

केन्द्रीय कार्यालय/Corporate Centre

Ref. No.: CC:CM:ENGG:7010:MP:96 Date: 21.01.2016

To

Advisor (Projects),
Ministry of Coal,
Shastri Bhawan,
New Delhi- 110 001

Sub: Approval of Revised Mining Plan & Mine Closure Plan (1st Revision) of Pakri Barwadih Coal Block.

Sir,

With reference to letter Ref. No. 34011/05/2015/CPAM(Pt) dated 28.12.2015 from Ministry of Coal regarding submission of Revised Mining Plan and Mine Closure Plan(1st Revision) for Pakri Barwadih Coal Block incorporating clarifications to the observations of standing committee, the Revised Mining Plan(1st Revision) has been prepared and is enclosed herewith.

As per the guidelines regarding preparation of Mining Plan / Mine Closure Plan issued by MoC these plan(s) require approval of Board of Directors of the allottee company.

For this, Board of Directors of NTPC vide resolution item no. **417.2.13**, dated 25.02.2015 has authorized Regional Executive Director (Coal Mining) to approve the Mining Plans/Mine Closure Plans, associated documents pertaining to these plans for Coal Mining Projects and any subsequent revision/ updation thereof, to be submitted to Ministry of Coal or any statutory authority in connection with development of coal mining projects.

In line with the resolution Revised Mining Plan (1st Revision) and Mine Closure Plan of Pakri Barwadih Coal Block as prepared by RQP Shri Sanjiv Kumar Singh (RQP no. 34011/(15)/2009-CPAM) has been approved by the undersigned for submission to MoC for approval. This will be implemented as per approval and amendments/ modifications suggested by MoC from time to time.

Copy of Board Resolution is enclosed for your kind information please.

With Kind Regards,

Yours Sincerely

21.01.2016
(Sharad Anand)
RED(Coal Mining)

SANJIV KUMAR SINGH
[illegible]
Ministry of Coal, Govt. of India



EXTRACTS FROM THE MINUTES OF 417th MEETING OF THE BOARD OF DIRECTORS HELD ON WEDNESDAY, 25th FEBRUARY 2015

Item No.417.2.13	**Approval of Mining Plan & Mine Closure Plans of Coal Mining Projects of NTPC and nomination of "Owner" as per the Mines Act 1952 for Pakri-Barwadih and all other coal mining blocks allocated / to be re-allocated /to be formally allocated to NTPC**

XX	XX	XX	XX	XX	XX
XX	XX	XX	XX	XX	XX

The Board, after discussions, passed the following resolution:

Resolved that Regional Executive Director (Coal Mining) be and is hereby authorised to approve the Mining Plans/Mine Closure Plans, associated documents pertaining to these plans for Coal Mining Projects and any subsequent revision/updation thereof, to be submitted to Ministry of Coal or any statutory authority in connection with development of coal mine projects.

Further resolved that Shri Sharad Anand, Regional Executive Director (Coal Mining) be nominated as "Owner" as per the Mines Act, 1952 for Pakri-Barwadih and for all other coal mining blocks already allocated / to be re-allocated /to be formally allocated to NTPC.

*****

CERTIFIED TRUE COPY

SANJIV KUMAR SINGH
Recognised Qualified Person
No. [illegible]
Ministry of Coal, Govt. of India

[illegible] K. RASTOGI
[illegible]
Executive Director & Company Secretary
[illegible] NTPC Limited
[illegible]
SCOPE Complex, Lodhi Road, New Delhi-110003

[illegible] PAWAN DEV JAMTA
[illegible]
Deputy General Manager, [illegible]
[illegible] NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)



सेन्ट्रल माईन प्लानिंग एण्ड डिजाइन इन्स्टीट्यूट लिमिटेड
(कोल इण्डिया लिमिटेड की अनुषंगी कम्पनी : भारत सरकार का एक मिनी रत्न उपक्रम)
गोण्डवाना प्लेस, कांके रोड, राँची - 834 031, झारखण्ड (भारत)
Central Mine Planning & Design Institute Limited
(A Subsidiary of Coal India Limited / Govt. of India Public Sector Undertaking)
Gondwana Place, Kanke Road, Ranchi - 834 031, Jharkhand (INDIA)

पत्रांक: संख्या:सीएमपीडीआई/सीजी/Captive/139/ 131 दिनांक:16.10.2015

To,

Executive Director,
PB,CB & KD CMP's,
NTPC Limited,
Ujjwal Complex,
Pugmil Road,
Hazaribagh-825301.

Sub : Certification of Block Boundary of Pakri Barwadih Coal Block of NTPC Ltd., Hazaribagh

महोदय,

With reference to your letter No.7010/PBCMP/GM/14 dt. 03.04.2014 and subsequent discussions thereafter, please find enclosed herewith the certified block boundaries (3 copies) of Pakri Barwadih Coal Block.

धन्यवाद,

भवदीय,

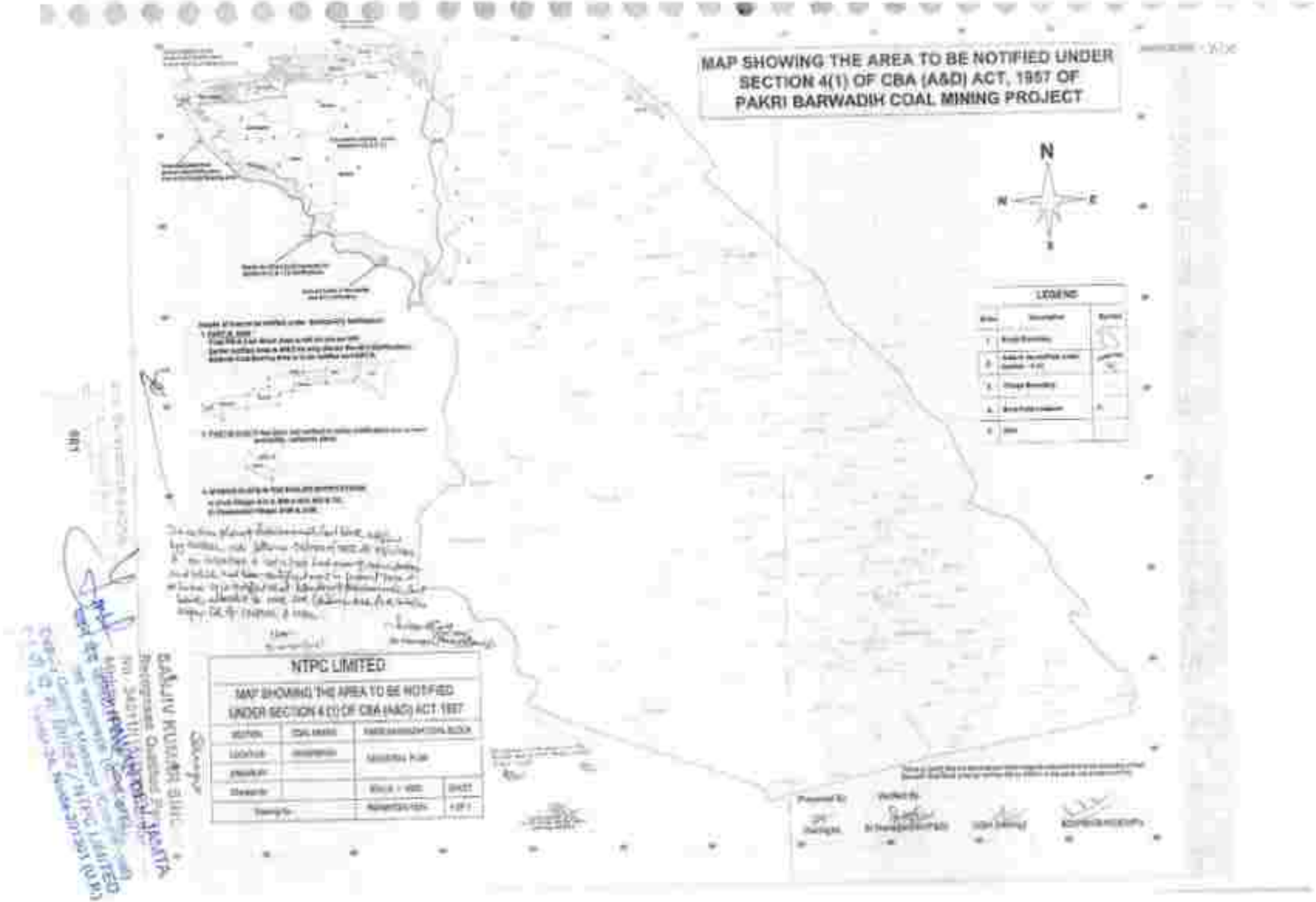
16.10.2015

महाप्रबन्धक (खदान)

Enc : as above

SANJIV KUMAR SINGH
Recognised Qualified Person
No. 34011(13)/2000-CPAM
Ministry of Coal, Govt. of India


PAWAN DEV JAMTA
Deputy General Manager (Commercial)
NTPC LIMITED


MAP SHOWING THE AREA TO BE NOTIFIED UNDER SECTION 4(1) OF CBA (A&D) ACT, 1957 OF PAKRI BARWADIH COAL MINING PROJECT
N
LEGEND
NTPC LIMITED
MAP SHOWING THE AREA TO BE NOTIFIED UNDER SECTION 4 (1) OF CBA (A&D) ACT 1957

Annexure XX

The WPI value for "All Commodities" as downloaded from website of "Office of Economic Advisor"



Annexure - E

MINING PLAN
(INCLUDING MINE CLOSURE PLAN)
(2ND REVISION)
FOR

PAKRI BARWADIH COAL BLOCK

Under Rule 27C of Mineral Concession Amendment Rules, 2020

North Karanpura Coalfield
District-Hazaribagh, State- Jharkhand

Block Area	**:**	**4428.9 Ha**
Project Area	**:**	**4695 Ha**
Rated Capacity	**:**	**22 MTPA**
Peak Capacity	**:**	**27 MTPA**

(@150% of rated capacity)

VOLUME -I
(TEXT & ANNEXURE)

MINE PLAN PREPARING AGENCY (MPPA): MECON, RANCHI

MPPA CERTIFICATE NO : NABET/APA-MPPA/IA/015
ISSUE DATE : 30th March, 2022

NTPC LIMITED
(A Public Sector Undertaking)

NTPC Bhawan, Core 7, Scope Complex
Institutional Area, Lodhi Road
New Delhi-110003, Ph: 011-24360071

SEPTEMBER 2023

Index of Chapters

Sl No.	Particulars	Page No
	Checklist	
1	Project Information	1-13
2	Exploration Geology, Seam sequence, Coal quality and Reserve	14-47
3	Mining	48-68
4	Safety Management	69-73
5	Infrastructure Facilities proposed and their location	74-79
6	Land Requirement	80-82
7	Environment Management	83
8	Progressive & Final Mine Closure Plan	84-95

Index for List of Annexures

Sl No.	Particulars	Details	Reference
1	Copy of allotment order/vesting order/Existing Mining lease	13016/29/2003-CA-I dated 11.10.2004	Annexure-I
2	Certificate of Qualified person(QP)/ Accredited Mining Plan preparing agency(MPPA) if the project area is confined within the vested/allotted block boundary/existing mining lease area Where the project area extend beyond the block boundary, a certificate of Qualified person(QP)/Accredited Mining Plan preparing agency (MPPA) should be supported with a certificate of state Government mines and Geology department must be attached which should specify a) Intent of state government for grant of lease beyond the vested geological boundary b) Non-existence of Coal/ Lignite in the area beyond the vested/allotted geological block boundary/existing mining lease to rule out the issue of encroachment and use of coal bearing area(beyond the vested/allotted block boundary/existing mining lease) in the mining plan	Certificate of Accredited Mining Plan Preparing Agency (MPPA)	Annexure-II
3	Approval of the Company Board		Annexure-III
4	Copy of earlier approval of mining plan		Annexure-IV
5	Plan/chart showing schedule of implementation of Mine closure activities(Progressive and final closure) with duration of important activities		Annexure-V
6	Other documents		
6A	Slope Stability Report		Annexure-VI A
6B	Environmental Clearance		Annexure-VI B
6C	Forest Clearance		Annexure-VI C
6D	Hydrogeological Report		Annexure-VI D

Sl No.	Particulars	Details	Reference
6E	QCI-NABET accreditation certificate for MECON, RANCHI as Mining Plan Preparation Agency (MPPA)		Annexure-VI E
6F	Cardinal Points of Block Boundary		Annexure-VI F
6G	Non-applicability of Mining Lease for the land acquired under CBA (Acquisition & Development) Act, 1957- Letter from Ministry of Coal to Jharkhand Govt.		Annexure-VI G

Index for List of Plans/Drawings attached as Plates

Sl No.	Details	Plate No
1	Location Plan	Plate-1
2	Plan certified by Qualified person(QP) /Accredited Mining Plan preparing agency(MPPA) if the project area is confined within the vested/allotted block boundary and Where the project area extends beyond the block boundary a plan certified by Qualified person(QP)/Accredited Mining Plan preparing agency(MPPA) should be supported with a plan with cardinal point coordinates duly certified by the state Government Mines and geology Department Plan in support of Annexure –II	Plate-2
3	KML file of the Proposed lease area, Project Area and geological block	Plate-3
4	Cadastral Plan showing approved Block boundary vis-à-vis proposed/existing mining lease and Mine boundary superimposed over it in distinct color, showing land use and infrastructure etc.	Plate-4
5	Geological Plan showing all the boreholes drilled and proposed to be drilled showing allotted block boundary and required lease area	Plate-5
6	Representative Graphic Lithologs	Plate-6
7	Surface plan showing drainage system	Plate-7
8	Conceptual plan showing infrastructure facilities including colony, boundary of mining area, mine entries, roads including road diversion alignment etc.	Plate-8
9	Tentative land use plan showing land type (Govt, Forest and tenancy land) with its data source	Plate-9
10	Floor Contour Plan, Seam Folio Plan, ISO-Grade Plan	

Sl No.	Details	Plate No
11	Cross- section showing coal seams	Plate - 11
12	Plan showing existing and proposed surface layout	Plate - 12
	Opencast Mines	
13	Plan showing total thickness and overburden thickness and stripping ratio	Plate-13
14	Final stage quarry plan showing haul road alignment	Plate-14
	Underground Mines	
15	Plan showing mode and location of entries and surface layouts	Not applicable
16	Layout of the panel for each system (like Longwall, Continuous Miner, Bord & Pillar, road header, etc.)	Not applicable
17	Layout of pillar extraction	Not applicable
18	Support system	Not applicable
19	Haulage and transport system	Not applicable
	Closure Plan	
20	Post mining land use plan	Plate-20
21	Progressive Mine closer plan / Stage plan indicating stages	Year: 1 st → Plate no. 21A; 3 rd → 21B; 5 th → 21C; PRC → 21D; End Of life → 21E
22	Reclamation Plan	Plate-22

List of Abbreviations

LIST OF ABBREVATION			
Abbrn.	**Description**	**Abbrn.**	**Description**
AMP	Approved Mining Plan	MCR	Mineral Concession Rule
BHs/bhs	Boreholes	mm	Millimeter
CHP	Coal Handling Plant	Mcum	Million Cubic Meter
CMR	Coal Mine Regulation	MECL	Mineral Exploration Corporation Limited
CPCB	Central Pollution Control Board	MoC	Ministry of Coal
CO	Carbon Monoxide	MGD	Million Gallon per Day
CMPDI	Central Mine Planning and Design Institute	MDO	Mine Developer cum Operator
dB/ dB(A)	Decibels	MSL	Mean Sea Level
DGMS	Directorate General of Mines safety	Mt	Million Tonne
EIA	Environmental Impact Assessment	Mtpa/MTPA	Million Tonnes per Annum
EMP	Environmental Management Plan	Mty	Million Tonnes per Year
E&M	Electrical & Mechanical	MVA	Mega Volt Ampere
e.o.t/E.O.T	Electric Overhead Travelling	OB	Overburden
Env.	Environment	PPM	Parts Per Million
GCV	Gross Calorific Value	RCC	Reinforced cement concrete
GPM	Gallons per minute	ROM	Run off Mine
GSI	Geological Survey of India	RPM	Respiratory Particulate Matter
Ha/ha	Hectare	MoEF & CC	Ministry of Environment and Forest for Climate Change
Hr	Hour	SPM	Suspended Particulate Matter
Hz	Hertz	s/Sec	Seconds
ISO	Indian Standard Organisation	Sq.km	Square kilometer
Kcal	Kilo Calorie	TPD	Tonnes per Day
Kg	Kilogram	Tph	Tonnes per hour
km	Kilometer	UHV	Useful Heat Value
Kv	Kilo Volt	V	Volts
LPS	Liters per second	VM	Volatile Matter
KWH	Kilo Watt Hour	VCB	Vacuum Circuit Breaker
m2	Square meter	WPI	Wholesale Price Index
m3/ cum	Cubic meter	°c	Centigrades

Checklist

Details		(✓/X)
Text	Project Information	(✓)
Text	Exploration, Geology, Seam Sequence, Coal Quality and Reserve	(✓)
Text	Mining	(✓)
Text	Safety Management	(✓)
Text	Infrastructure Facilities proposed and their Location	(✓)
Text	Land Requirement	(✓)
Text	Environment Management	(✓)
Text	Progressive & Final Mine Closure Plan	(✓)
Annexure-I	Copy of allotment order /Vesting order.	(✓)
Annexure-II	Certificate of authorised person/agency if the project area is confined within the vested/allotted block boundary and Where the project area extends beyond the block boundary, a certificate of authorised person/agency should be supported with a certificate of State Government mines and Geology department must be attached, which should specify (a) intent of the state government for grant of lease beyond the vested geological boundary; (b) non-existence of Coal/ Lignite in the area beyond the vested/allotted geological block boundary to rule out the issue of encroachment and use of coal bearing area (beyond the vested/allotted block boundary) in the mining plan	(✓)
Annexure-III	Approval of the Company Board	(✓)
Annexure-IV	Copy of earlier approval of mining plan.	(✓)
Annexure-V	Plan / chart showing schedule of implementation of Mine closure activities (progressive and final closure) with duration of important activities	(✓)
Annexure	Other document (if any)	(✓)
Annexure-VIA	Slope Stability Report	(✓)
Annexure-VIB	Environmental Clearance and Amendments	(✓)
Annexure-VIC	Forest Clearance and Amendments	(✓)
Annexure-VID	Hydrogeological Report	(✓)
Annexure-VIE	QCI-NABET accreditation certificate for MECON, RANCHI as Mining Plan Preparation Agency (MPPA)	(✓)
Annexure-VIF	Non-applicability of Mining Lease for the Land acquired under CBA (Acquisition & Development) Act, 1957- Letter from Ministry of Coal to Jharkhand Govt.	(✓)
Plates-01	Location plan	(✓)
Plates-02	Plan certified by authorised person/agency if the project area is confined within the vested/allotted block boundary and where the	(✓)

	project area extends beyond the block boundary, a Plan certified by authorised person/agency should be supported with a plan with geo-reference co- ordinates duly certified by the Mines and Geology Department of the concerned State Government. Plan in su ort of Annexure - II	
Plates-03	KML file of the proposed lease area, project area and geological block.	(✓)
Plates-04	Plan showing approved block boundary vis-à-vis proposed/ existing mining lease & Mine boundary superimposed over it in distinct colour.	(✓)
Plates-05	Geological plan showing all the boreholes drilled and proposed to be drilled showing allotted block boundary and required lease area	(✓)
Plates-06	Representative Graphic Litholog	(✓)
Plates-07	Surface Plan showing drainage system, Contour, preferably at 3 m interval, location of BH (borehole)	(✓)
Plates-08	Conceptual plan showing infrastructure facilities including colony, boundary of mining area, mine entries, roads including road diversion alignment etc.	(✓)
Plates-09	Tentative land use plan showing land type (Govt., forest and tenancy land) with its data source	(✓)
Plates-10	Floor contour plan and seam folio plan, iso-grade plan	(✓)
Plates-11	Cross-section showing coal/lignite seam(s)	(✓)
Plates-12	Plan showing existing and proposed surface layout(s)	(✓)
Plates-13	Plan showing total coal thickness and overburden thickness and stripping ratio (in case of opencast (OC) Mines)	(✓)
Plates-14	Final stage quarry plan showing haul road alignment (in case of OC Mines)	(✓)
Plates	Plan showing mode and location of entries and surface layouts (in case of underground (UG) Mines)	(X)
Plates	Layout of the panel for each system (like Longwall, Continuous Miner, Bord & Pillar, road header etc.) should be given (in case of UG Mines)	(X)
Plates	Layout of pillar extraction (in case of UG Mines)	(X)
Plates	Support system (in case of UG Mines)	(X)
Plates	Haulage and transport system (in case of UG Mines)	(X)
Plates-15	Post mining land use plan	(✓)
Plates-16	Progressive mine closure plan/ stage plans	(✓)
Plates-17	Reclamation plan	(✓)

Chapter - 1

PROJECT INFORMATION

	Parameters	Details
1.1	**INTRODUCTION**	
1.1.1	Name of Coal / Lignite Block	Pakri Barwadih Coal Block
1.1.2	Name of the Coalfield/ Lignite Field	North Karanpura Coalfield
1.1.3	Base date of Mining Plan/ Mine Closure Plan	01.04.2023
1.1.4	Linked End Use Plant	All coal mined from the block, including any middlings or rejects etc, if washing is resorted to, shall be used in NTPC power plants.
1.1.5	Distance of End use plant from the pit head of the project in "km"	Various locations in India.
1.1.6	Mode of Coal Transport	Up to the loading point (south-eastern part of the block) by belt conveyor, from loading point to Banadag siding (13.5 km) by cross country belt conveyor (up to 15 MTPA) & by road (beyond 15 MTPA) and then dispatched to different power plants of NTPC by Indian Railway network.

1.2	**LOCATION, TOPOGRAPHY AND & COMMUNICATION**	
1.2.1	Location of coal deposit (District and State)	Pakri Barwadih Coal Block is located on North-Eastern part of North Karanpura Coalfield in the Hazaribagh district of Jharkhand state.
1.2.2	Communication: PWD roads, railway lines, Air	**Road:** The block is well connected to the district headquarter Hazaribagh via Barkagaon at a distance of 40 km. by all-weather road. The block is located at a distance of 10 km. from Barkagaon. The Hazaribagh – Khelari State Highway passes 5 km. south of the block.

		via Barkagaon and Tandwa village. The area is also connected to Patratu by all-weather road via. Urimari. **Railway:** The nearest rail station is Hazaribagh around 20 km from the block. It belongs to East Central Railway and lies on Koderma-Barkakana route. **Air:** The nearest Birsa Munda Airport at Ranchi is situated at 130 Km south from the Pakri Barwadih Coal Block.
1.2.3	Availability of power supply, water etc.	It is an Operating mine having adequate supply arrangement of water & power supply. Presently, entire water requirement is being met through sump water and surface borewells. Power is being arranged from NTPC North Karanpura STPP (NKSTPP) to the main receiving sub-station (220/33/11 KV) of the Pakri Barwadih project. Provision of 6 (Six) nos. of 11 KV DG sets have also been made to cater to the power requirement at the time of power failure.

Water Requirement		
West & East (m3/day)	**NW (m3/day)**	**Total (m3/day)**
5,026	745	5,771

1.2.4	Prominent physiographic features, drainage pattern, natural water courses, rainfall data, highest flood level	Topographically the area is hilly and undulating in northern and north-west part of the block. The central and eastern part of the block is characterized by more or less flat terrain with gentle undulations. The ground has general slopes towards south. The HFL is 400 m. (Dip side of the block) – 450 m. (Hilly terrain in Northern portion). The original Surface contours vary from 430 m to 460 m. However, opencast mine, dumps and present civil construction activities changed the physiographic configuration varying from + 360m to + 520m from MSL within the area as per Survey of India Topo Sheets 73 E/1 (RF 1:50,000) due to quarry floor and dumps.

		There are a number of seasonal streams/nallah traversing the block and the prominent ones are western nala (lathorwa / khora), central nala (dumuhani), eastern nala (pakwa) flowing roughly north to south and carry huge load during rainy seasons. None of them are perennial in nature. They outfall into haharo nadi, near barkagaon village, flowing further south of the block which is one of the important tributaries of the mighty Damodar River flowing west to east in southern part of the North Karanpura Coalfield. The area experiences a subtropical climate with very hot and dry in summer and well distributed rainfall in the southwest monsoon season. Annual mean rainfall recorded at IMD's observatory, Hazaribagh is 1277.90 mm and maximum temperature is 43°C in summer and minimum temperature is 3°C in winter season.
1.2.5	Important surface features within the project area and major diversion or shifting involved	**Habitation:** The villages to be shifted are Arahara, Dadikalan, Chepakalan, Jugra, Lakura (P), Itiz, Chirudih, Nagadi, Pakri Barwadih, Urub, Deoria Khurd (P), Churchu, Sonbarsa, Sinduari, Chepakhurd, Keri (P), Langatu (P), Barkagaon (P), Deorikalan (P), Sirma, Nawadih (P), Basaria, Kandaber (P), Jabra, Beltu (P), Bariatu (P) **Nalas:** There are a number of seasonal streams/nallah traversing the block and the prominent ones are western nala (lathorwa / khora), central nala (dumuhani), eastern nala (pakwa) flowing roughly north to south and carry huge load during rainy seasons. None of them are perennial in nature. They outfall into haharo nadi, near barkagaon village, flowing further south of the block which is one of the important tributaries of the mighty Damodar River flowing west to east in southern part of the North Karanpura Coalfield. It is proposed to construct a catchment canal from the northern periphery of the block as per the diversion study report prepared by CWPRS. This drain shall also

		serve the purpose of catchment canal for rainwater and runoff from northern hills. Lathorva nala which flows from western side of PB- NW quarry shall not be diverted but realigned / straightened if necessary emboldened to carry additional load of diverted Khora nala. Before restart of exploitation of East Quarry, Pakwa nala shall be diverted in the periphery of PB East Quarry which shall meet its own course further downstream within the block boundary. All nalas (Khora, Dumuhani & Pakwa) flowing through the block and interfering with the production regime shall be diverted preferable to the northern fringe of the block to free up the locked reserves so as to ensure minimum or no sterilization of coal.

1.3	DETAILS OF THE ALLOTTMENT AGREEMENT	
1.3.1	Name the Allottee	NTPC Ltd. (Govt. of India Enterprise)
1.3.2	Details of allotment/vesting order	Date: 11.10.2004 Letter No.: 13016/29/2003-CA-I
1.3.3	Name and address of the applicant	NTPC Ltd. (Govt. Of India Enterprise) NTPC Bhawan, Core-7 Scope Complex, 7 Institutional Area, Lodhi Road New Delhi 110003
1.3.4	Name of the Previous allottee of the Block	Not Applicable
1.3.5	Starting Date of the Mine as per CMDPA	Not Applicable
1.3.6	Rated Capacity as per CMDPA	18 MTPA (As per Approved Mining Plan)
1.3.7	Production Schedule as per opening permission (meeting provisions of CMDPA if any)	Not Applicable

1.3.8	End Use of Coal/Lignite as per allotment order if any	For generation of power.
1.3.9	Cardinal points co-ordinates of the Block Boundary	Attached in Annexure VI F

1.4	DETAILS OF THE PREVIOUS APPROVAL OF MINING PLAN	
1.4.1	Date of Approval	07.03.2016
1.4.2	Conditions, if any	1) The mining company shall take all necessary precaution regarding safety of mine workings, persons, deployed therein; 2) Mining lease to be acquired shall not encroach into any other coal block; 3) Mining company shall get the balance area explored in detail by getting the additional drilling done either by CMPDIL or under the supervision of CMPDIL within 4 years of the approval of mining plan and till than no overburden shall be dumped over the area. 4) Mining company shall submit mining plan for underground mining for liquidation of beyond 300 m coal reserve of the block; 5) The approval of mining plan is without prejudice to requirement of approvals under prescribed rules/regulations, etc.
1.4.3	Scheduled year of start of production	2016
1.4.4	Proposed year of achieving the targeted production	2028
1.4.5	Date of actual commencement of mining operations, if operations already started	May 2016
1.4.6	Likely date of mining operations, if operations not yet started & reasons for non-commencement of operations	Not applicable.

1.4.7	Planned production and actual levels achieved in last 3 years (Coal in Mte, OB in MM^3, SR in M^3/te)	**Planned production:** **Actual production:**

Planned production:

Year	Coal in "Mt"		OB in M cum.	SR
	UG	OC		
2020-21		10.50	30.92	3.02
2021-22		11.50	44.25	3.93
2022-23		12.50	50.38	4.11

Actual production:

Year	Coal in "Mt"		OB in M cum.	SR
	UG	OC		
2020-21		7.07	26.34	3.73
2021-22		8.32	21.98	2.63
2022-23		13.23	44.83	3.40

1.4.8	Statutory obligations vis-à-vis compliance status in a tabular form	Statutory obligations vis-à-vis compliance status in a tabular form are given below –

Item	Date of Achievement	Compliance Status
Revised Mining Plan and Mine Closure Plan (1st Revision)	07.03.2016	Complied
Environmental Clearance	19.05.2009	Complied
Forest Clearnce	Stage 1: 11.05.2010 Stage 2: 17.09.2010	Complied
Consent to Establish	18.12.2007	Complied

		Consent to Operate	21.12.2016, 22.12.2018 (R1)	Complied
		Ground water clearance	02.07.2012	Complied
		Tripartite Escrow Agreement (Banker, CCO & NTPC)	12.11.2013	Complied
		DGMS Permission	25.06.2013	Complied
		Coal Controllers Permission	18.11.2013	Complied
1.4.9	Reasons for difference between the planned and actual production levels	Reasons of difference: a) West Quarry: **2020-21:** Less attendance of manpower, disturbance in supplies of spare parts of machinery, other inputs, etc. due to nationwide COVID-19 lockdown. Stoppage of operation for 94 days by the villagers. **2021-22:** 1654.1 mm of rainfall was received during 2021-22, which is 40% more than average. b) NW Quarry not started – EC and FC awaited.		

1.5	PARAMETERS OF APPROVED MINING PLAN VIS-À-VIS PROPOSED MINING PLAN				
		Approved Mining Plan		Proposed Mining Plan	
1.5.1	Block Area in "Ha"	West & East	3943.76	West & East	3943.76
		NW	485.16	NW	485.16
		Total	4428.92	Total	4428.92
1.5.2	Block Area Projectised "Ha"	West & East	3943.76	West & East	3943.76
		NW	485.16	NW	485.16
		Total	4428.92	Total	4428.92

1.5	PARAMETERS OF APPROVED MINING PLAN VIS-À-VIS PROPOSED MINING PLAN		
		Approved Mining Plan	Proposed Mining Plan
1.5.3	Lease area "Ha"	Mining Lease is not applicable since mining area land is being acquired by NTPC under CBA Act.	Block Area West & East: 3943.76 NW: 485.16 Mining Lease is not applicable for the land being acquired under CBA Act.
1.5.4	Project Area "Ha"	Block Area West & East: 3943.76 NW: 485.16 Outside Block Area West & East: 266.08 NW: 0.00 Project Area West & East: 4209.84 NW: 485.16 Total: 4695	Block Area West & East: 3943.76 NW: 485.16 Outside Block Area West & East: 266.08 NW: 0.00 Project Area West & East: 4209.84 NW: 485.16 Total: 4695 Out of 4695 Ha EC has been accorded for NW (485.16 Ha) and West & East (3319.42 Ha). Details of EC area has been attached at Annexure – VI B.
1.5.5	Life of the Project "Yrs"	OC - 52 Years	OC - 51 Years (balance)
1.5.6	Minimum and Maximum Depth of working "m"	Min – 30m. Max – 300 m.	Min -30 m. Max- 300 m.
1.5.7	Net Geological Block "Ha"	West & East: 3943.76 NW: 485.16 Total: 4428.92	West & East: 3943.76 NW: 485.16 Total: 4428.92

1.5	PARAMETERS OF APPROVED MINING PLAN VIS-À-VIS PROPOSED MINING PLAN		
		Approved Mining Plan	Proposed Mining Plan
1.5.8	Production Target "MTPA"	18 MTPA	OC- 22 MTPA
1.5.9	Seams Available "As per GR"	Multiple correlatable coal seams/splits viz: V Top, V Bottom, V combined, IV Top, IV Bottom, IV combined, III top, III Bottom, III combined, II Top, II middle, II TM, II Bottom, II MB, II combined, I Top, I middle, I TM, I Bottom, I MB, I combined, LL, K5, K4,K3,K3,K2,K1	Multiple correlatable coal seams/splits viz: V Top, V Bottom, V combined, IV Top, IV Bottom, IV combined, III top, III Bottom, III combined, II Top, II middle, II TM, II Bottom, II MB, II combined, I Top, I middle, I TM, I Bottom, I MB, I combined, LL, K5, K4,K3,K3,K2,K1
1.5.10	Seams not considered for Mining with Reasons	**PB West & East** – The geological & mining characteristics depicts 12 workable splits contained in 5 seams of Barakar formations, i.e Seam I to V considered for opencast mining. The Karharbari formations contain 5 thin non workable seams ,K1 to K5. Avg. thickness of these seams is less than 1 m., hence not considered for opencast mining. **PB North West**- The entire property is envisaged to be mined by opencast method.	**PB West & East** – The geological & mining characteristics depicts 12 workable splits contained in 5 seams of Barakar formations, i.e Seam I to V considered for opencast mining. The Karharbari formations contain 5 thin non workable seams ,K1 to K5. Avg. thickness of these seams is less than 1 m., hence not considered for opencast mining. **PB North West**- The entire property is envisaged to be mined by opencast method.
1.5.11	Gross Geological Reserve "Mt"	West & East 1595.64 NW 135.32 Total 1730.96	West & East 1595.64 NW 135.32 Total 1730.96

1.5	PARAMETERS OF APPROVED MINING PLAN VIS-À-VIS PROPOSED MINING PLAN					
		Approved Mining Plan		Proposed Mining Plan		
1.5.12	Net Geological Reserve "Mt"	West & East	1436.00	West & East	1436.00	
		NW	137.58	NW	137.58	
		Total	1573.58	Total	1573.58	
1.5.13	Blocked Reserve "Mt"	West & East	187.66	West & East	187.66	
		NW	15.43	NW	15.43	
		Sub-Total	203.90	Sub-Total	203.90	
		Extractable from barrier and batter coal between PB-West and PB-NW – Will be added to the reserves of PB-NW	38.13	Extractable from barrier and batter coal between PB-West and PB-NW – Will be added to the reserves of PB-NW	38.13	
		Total	164.96	Total	164.96	
1.5.14	Minable Reserve "Mt"	West & East	519.34	West & East	519.34	
		NW	143.73	NW	143.73	
		Total	663.07	Total	663.07	
1.5.15	Extractable Reserves "Mt"	West & East	503.38	West & East	503.38	
		NW	138.96	NW	138.96	
		Total	642.34	Total	642.34	
1.5.16	% of Extraction/ recovery	78%		78 %		
1.5.17	Reserve Depleted (till the base date) "Mt"	NA		West & East	47.753	
				NW	-	
				Total	47.753	
1.5.18	Balance Extractable reserve "Mt"	NA		West & East	455.627	
				NW	138.960	
				Total	594.587	

1.5	PARAMETERS OF APPROVED MINING PLAN VIS-À-VIS PROPOSED MINING PLAN		
		Approved Mining Plan	Proposed Mining Plan
1.5.19	Average Grade	West & East Quarry- G10 NW Quarry – G8	West & East Quarry- G10 NW Quarry – G8
1.5.20	OB in MM3	West & East: 2098.78 NW: 438.24 Total: 2537.02	OB removed till base date West & East: 162.715 NW: - OB Balance West & East: 1936.065 NW: 438.24 Total: 2374.305
1.5.21	SR MM3/te	West & East: 4.17 NW: 3.15 Overall: 3.95	West & East: 4.17 NW: 3.15 Overall: 3.95
1.5.22	Mining Technology	OC– Shovel Dumper combination system with horizontal slicing pattern would be adopted in mining mass, i.e, OB, Coal & intervening parting. UG- Bord & Pillar and blasting gallery (which is a variation of Bord & Pillar) methods for this property.	OC– Shovel Dumper combination system with horizontal slicing pattern would be adopted in mining mass, i.e, OB, Coal & intervening parting. UG- Bord & Pillar and blasting gallery (which is a variation of Bord & Pillar) methods for this property.
1.5.23	Coal Beneficiation envisaged	Coal washability study has not been carried out for Pakri Barwadih coal. Coal Quality parameters obtained from the proximate analysis of coal revealed that ash percentage in all probability is likely to remain 34% or below which does not call for commissioning of coal	Coal washability study has not been carried out for Pakri Barwadih coal. Coal Quality parameters obtained from the proximate analysis of coal revealed that ash percentage in all probability is likely to remain 34% or below which does not call for commissioning of coal washery. However to cater

1.5	PARAMETERS OF APPROVED MINING PLAN VIS-À-VIS PROPOSED MINING PLAN						
		Approved Mining Plan			Proposed Mining Plan		
		washery. However to cater for more stringent future quality stipulations, space allocation is earmarked for commissioning of coal washery at mine end to facilitate transport of washed coal to the power plants as per qualitative requirements.			for more stringent future quality stipulations, space allocation is earmarked for commissioning of coal washery at mine end to facilitate transport of washed coal to the power plants as per qualitative requirements.		
1.5.24	Handling of Rejects	Not Applicable.			Not Applicable.		
1.5.25	Land use pattern " Ha"	West & East	NW	Total	West & East	NW	Total
1	Excavation Area	1600.00	382.00	1982.00	1600.00	382.00	1982.00
2	Top Soil Dump	40.00	7.14	47.14	40.00	7.14	47.14
3	External Dump	825.76	14.45	840.21	825.76	14.45	840.21
4	Safety Zone	8.97	1.03	10.00	8.97	1.03	10.00
5	Other Use	660.15	34.99	695.14	660.15	34.99	695.14
6	Infrastructure area	273.50	4.85	278.35	273.50	4.85	278.35
7	Green Belt	18.00	0.00	18.00	18.00	0.00	18.00
8	Undisturbed Area	823.46	47.84	871.30	823.46	47.84	871.30
9	Total	4209.84	485.16	4695.00	4209.84	485.16	4695.00
1.5.26	Reasons for revision	As a result of early start up of PB east Quarry, there is a variation in the calendar			To increase the production from West & East quarry from 15 MTPA to 19 MTPA		

1.5	PARAMETERS OF APPROVED MINING PLAN VIS-À-VIS PROPOSED MINING PLAN		
		Approved Mining Plan	Proposed Mining Plan
		program and the land use pattern of the mine. Besides that, PB NW Quarry was earlier unexplored during approval of Mining plan in 2006, is now integrated with the present revised Mining plan (1st revision). Resultant coal evacuation facilities from road and coal handling plant and additional volumes of coal/OB mining shall change the calendar program and land use pattern.	for the area in which EC has been accorded (Details of EC status has been attached in Annexure VI B)

CHAPTER – 2

EXPLORATION, GEOLOGY, SEAM SEQUENCE, COAL QUALITY AND RESERVES

	Parameters	Details			
2.1	**DETAILS OF THE BLOCK**				
2.1.1	Particulars of adjacent blocks: North, South, East, West	North- Protected Forest South-Badmahi River & Barkagaon R.F East- Barkagaon R.F West-Kerendari 'C' Block			
2.1.2	Location of the Block District / State	Pakri Barwadih Coal Block Coalfield: North Karanpura Coalfield District: Hazaribagh State: Jharkhand			
2.1.3	Area of the Block "Ha"		**West & East**	**NW**	**Total**
		Geological Block Area	3943.76	485.16	4428.92
2.1.4	Area of the geological block projectized "in Ha" (Area of the geological block considered for liquidation of coal reserve)		**West & East**	**NW**	**Total**
		Geological Block Area	3943.76	485.16	4428.92
		The block boundary considered for mining is the same as provided by the CMPDI. However additional land (266.08 Ha) has been acquired for external dump and infrastructure such as cross country conveyor, Railway siding etc. outside the block boundary.			
2.1.5	Balance area yet to be projectised "Ha"	NIL			
2.1.6	Likely Reserve in the area yet to be projectised "Mte"	NIL			

2.1.7	Geo-Reference Co-ordinates of the Block Boundary	Cardinal points of block boundary according to CMPDIL conceptual plan

	MNING BOUNDARY	
Pillar No	EASTING	NORTHING
1	311980.4692	2647159.772
2	313129.5382	2647372.602
3	313782.6419	2647447.134
4	314631.8342	2647483.388
5	316777.6563	2647174.964
5A	318304.0225	2646084.818
6A	318644.2452	265478.64
7A	320257.2557	2644644.778
8A	320444.9144	2644366.719
8B	320353.702	2643633.452
8C	320699.2424	2643491.738
8D	320249.4112	2643311.872
8E	320532.5555	2643099.343
9	320799.8789	2642052.087
10	321695.6514	2641457.096
11	322100.0657	2640720.801
12	322551.6371	2639629.345
13	320269.452	2639240.066
14	318476.2464	2638828.291
15	317223.5973	2639425.025
16	315672.7493	2640074.623
17	315691.0892	2640516.046
18	314588.5174	2641542.285
19	314597.4314	2642173.713
20	314997.2703	2642658.353
21	315111.5708	2644220.129
22	314308.2927	2645267.842
23	313498.8911	2645634.034
24	312566.8643	2646262.31

GEOLOGICAL BOUNDARY		
Pillar No	EASTING	NORTHING

			1	311980.4692	2647159.772
			2	313129.5382	2647372.602
			3	313782.6419	2647447.134
			4	314631.8342	2647483.388
			5	316777.6563	2647174.964
			6	318153.6881	2645862.933
			7	319177.5792	2644674.552
			8	320097.6234	2643543.264
			9	320799.6789	2642052.087
			10	321695.6514	2641457.096
			11	322100.0657	2640720.601
			12	322551.6371	2639629.345
			13	320296.452	2639240.066
			14	318476.2464	2638828.291
			15	317223.5973	2639425.025
			16	315672.7493	2640074.623
			17	315691.0892	2640516.046
			18	314588.5174	2641542.285
			19	314597.4314	2642173.713
			20	314997.2703	2642858.353
			21	315111.5708	2644220.129
			22	314308.2927	2645267.842
			23	313498.8911	2645634.034
			24	312566.8643	2646262.31
2.1.8	Certificate of authorised person/agency if the project area is confined within the vested/allotte	Annexure-II			

	d block boundary and Where the project area extends beyond the block boundary, a certificate of authorised person/agency should be supported with a certificate of State Government mines and Geology department must be attached, which should specify (a) intent of the state government for grant of lease beyond the vested geological boundary; (b) non-existence of Coal/ Lignite in the area beyond the vested/ allotted geological block boundary to rule out the issue of	

	encroachment and use of coal bearing area (beyond the vested/allotted block boundary) in the mining plan The Project area, Lease area and geological block area in "Ha" shall also be envisaged	
2.1.9	KML file of the Proposed lease and geological block.	Complied. (Plate-3)
2.1.10	Whether the proposed project area is confined within the allotted block boundary, if not, the reason for deviation from allotted block boundary, may be given.	The block boundary considered for mining is the same as provided by the CMPDI. However additional land (266.08 Ha) has been acquired for external dump and infrastructure such cross country conveyor, Railway siding etc. outside the block boundary. • OB dumps & mine infrastructure: 193.85Ha • Evacuation corridor & siding: 72.23 Ha
2.1.11	If the project area extends outside the allotted block boundary,	North and eastern part of Block boundary of Pakri Barwadih forms the Northern Boundary of North Karanpura Coal Field as per Geological Map of North Karanpura Coal Field. Further, Geological Plan (vide drawing No. R-III/G/6206) of GR prepared by CMPDI reveals that the incrop of lowermost seam of Barakar Formation Seam-IB is within the block boundary and no mineable coal, extend

	confirmation about non-occurrence of coal/lignite in the area under reference needs to be furnished	beyond that incrop line.
2.1.12	Type of the Project (Operating / under Implementation) and year of Starting	Operating OC Mine & FY 2016-17
2.2	**EXPLORATION, GEOLOGY AND ASSESSMENT OF RESERVE**	
2.2.1	Regional geological set up of the area, local geology, structure, stratigraphic sequence, characteristics of the litho-logical units (coal seams /partings/over burden).	The North Karanpura Coalfield forms a prominent East-West trending valley between Hazaribagh plateau in the North and Ranchi plateau in the south. The Aswa pahar in the south-East separates the North and South Karanpura Coalfields by East West elongated metamorphic patch. However, they are interconnected near Bachra and Hindegir village by a narrow tongue of Talcher Outcrops. On the eastern side, North Karanpura Coalfield is separated from the West Bokaro Coalfield by a narrow stretch of metamorphic rocks having several outliers of Talcher formation. In the west, it is separated by a stretch of about 20 km wide metamorphic belt from Auranga Coalfield.

Period	Group	Subgroup	Formation	Lithology
Recent	-	-	Alluvium	Detrital and alluvial soil & subsoil
Jurassic	-	Equivalent to Rajmahal	Igneous Intrusive	Dolerite and Mica peridotite

			Trap		
		Triassic	Upper Gondwana	-	Mahadeva	Massive coarse to conglomeratic feldspathic ferruginous sandstone with shale intercalation
		Upper Permian to Lower Triassic	Lower Gondwana		Panchet	Yellowish to white coarse-grained sandstone, red, chocolate colour clastic clays. In the upper part, yellowish friable sandstone whereas lower part is greenish yellow.
		Upper Permian		Damuda	Raniganj	Fine to medium grained quartzo-feldspathic and quartzic sandstone often micaceous and matured, interbended shale and sandstone, carbonaceous shale and sandstone, carbonaceous shale and thin coal seam.
					Barren	Dark Shale

					Measures	sandy micaceous shale with siderite interbanded shale and sandstones.
					Barakar	Conglomerate, sandstone, shale, intercalation siltstone and shale, carbonaceous shale, fireclay, chocolate-coloured clays and coal seams.
					Karharbari	Dark mottled sandstone occasional shale bands, fireclay, chocolate-coloured clays and coal seams.
					Talchir	Rikba plant beds, boulders, conglomerate, varvites, sandstone, filloids and tillites.
				----------Unconformity----------		
				Precambrian	-	-	Metamorphics	Granite, gneiss, pegmatite, phyllites, Micaschist and limestone, chromite

						bearing rocks, Amphibolites and quartzite.

Out of the 1230 sq. Km area of the North Karanpura coalfield, the coal bearing formations viz Karharbari, Barakar & Raniganj crop-out over an area of about 500 sq. Km. The Karharbari formation is well developed in the south-central and eastern part of the coalfield. It contains only one coal seam which occurs in two or three sections. It comprises of very coarse-grained gritty sandstone and at times has silicious sandstones, hard strata difficult to negotiate during drilling operations. The Barakar formation contains a number of coals seams and contributes the major bulk of reserves in this coalfield. The total coal column is more or less around 30 to 40 meter in the major part of the coalfield. Raniganj formation contains three or four impersistent coal seams which are generally shaly in nature.

2.2.2 Local geology, Structure, Stratigraphic sequence, Characteristics of the litho-logical units (coal seams / partings/overburden).

A. PB Block (East and West)

The Pakri-barwadih block comprises of Talchir, Karharbari, Barakar, Barren measures and Raniganj formations belonging to Damudas, a Sub-group of Lower Gondwana. Talchir Formation rest directly over the Precambrian. The Karharbaris and Barakar are the main coal bearing formations in the block.

Period	Group	Sub-group	Formation	Thickness Range	Lithology
Recent	Lower Gondwana	Damuda	Alluvium	3.5-25.85	Detrital and Alluvial soil & subsoil
Upper Permian			Raniganj	1.50-324.50	Fine to medium grained micaceous sandstone, interbanded shale and sandstone Carbonaceous shale & thin uneconomic Coal seams.
Upper Permian			Barren-Measures	5.14-353.00	Dark shale, sandy shale & interbanded shale & sandstone
			Barakar	12.50-268.85	Fine to coarse grained sandstone, shale, conglomerate, carbonaceous shale & Coal seam
			Karharbari	10.00-81.60	Medium to coarse grained sandstone, shale, silicified

					quartzite rock & thin coal seams
Permo-Carboniferous			Talchir	0.80-13.50	Green coloured shale, Boulder & Conglomerate
----------Unconformity----------					
Precambrian			Metamorphics		Granite, gneiss & quartzites

There are a few small outliers of Barakar/Karharbari/talker Formations occurring over the Precambrian basements immediately north of the Pakri-barwadih Block.

B. PB Block (North West):

PB North west area small exposures of sandstone and coal seams are found near the bank of Khora Nala in the western margin of the block. At places Karharbari Formation also rest directly over metamorphic. The geological succession established in the PB North west area of the block from sub-surface exploration data is given below.

Period	Group	Sub-group	Formation (thickness)	Lithology
Recent and Sub-recent			Alluvium (3.00 to 23.00m)	Soil & Sub-soil
----------Unconformity----------				
Middle Permian			Barren Measures (44.00-138.70m)	Predominantly shale with intercalation of sandstone and shale arenaceous shale
Lower Permian	Lower Gondwana	Damuda	Barakar (19.07-137.10m)	Fine to coarse grained sandstone, shale, carbonaceous shale and coal

			Karharbari (5.14-91.52m)	seams Fine to coarse grained sandstone with bands of shale nad coal seams
Permo-Carboniferous			Talchir 0.65m-4.64m)	Green coloured shale, boulders and conglomerates
----------Unconformity----------				
Precambrian			Metamorphosis (2.60-11.00pm)	Gniesses, granite and quartzites

Structure of PB (East and West)

Structurally the North Karanpura coalfield is a major broad syncline with its axis trending east to west and plunging towards east. The Pakri-Barwadih is located in the NE part of the northern limb. The northern boundary of the block appears to have normal contracts with the Talcher and basement metamorphics. The southern boundary of the eastern sector is marked by a major fault of about 250m throw towards south. This has resulted in bringing the Barakar formations including coal seams in juxtaposition with Raniganj formation.

The block is generally traversed by NW-SE/SE-EW trending faults with northernly throw causing step like configuration. The strike of the strata is generally NW-SE and the dip of the strata varies from 10° to 15° towards south-west.

Nineteen faults with throw ranging up-to 170m have been deciphered based on exploration carried out in the block. The throw of most of the faults ranges from 10-40m.

It may be mentioned here that the geological structure of the block is primarily based on CMPDI GR in general and in particular in the north and north central part of West Quarry i.e., north of fault F10-F10, giving due cognizance to the long field association of CMPDI during exploration.

The fault F5 which is of distinctive nature has been considered as the boundary for division of the block into West & East Quarry. The

details are given below.

Fault	Trend	Dip	Throw	Remarks
F1-F1	East-West	Northernly	20-60m	Omission of (i) Seam-II in KB-16 (ii) Seam- II Top to Seam-IV in CMKPB 29 (iii) Reduction in parting between Seam-II MT & Middle in CMKPB-12
F2-F2	NW-SE	North-easterly	10-100m	Omission of (i)Seam- I in CMKPB 10 (ii)Seam-II Bottom & V in CMKPB 35 (iii)Seam- III Top& Bottom in CMKPB-12
F3-F3	NW-SE & Curvilinear fault trending NW-SE and gradually swerving to N-S	Northernly	80-170m	Intersected in (i) CNPB-107 (Omission of Seam-I Bottom to Seam-V Top). (ii)Based on Stratum Contours.
F4-F4	NW-SE dies out near borehole	North-East	0-20m	Omission of (i)Seam-I Bottom to Seam-II Bottom in CNPB -49, (ii)Seam-IVA & IV in CNPB-15

		CNPB -52			(iii)Seam-II Top & & III in CNPB-21 (iv)Seam-III in CNPB-21 & Seam-IV in CNPB-64
	F5-F5	NW-Se to swerving to E-W	North-Easterly/ Northernly	40-140m	Omission of (i) Seam-I &II in CNPB-92, (ii)Seam-III Bottom in CNPB-93, (iii)Seam-III in CNPB-95, (iv)Seam-III Bottom to V top in KB-11 (v)Seam- II to V top in CNPB-16 (iv)Based on Stratum contour.
	F6-F6	NW-SE abducts against fault F5-F5 near BHs CNPB -93	North Easterly	10-40m	(i)CNPB-39 Omission of Seam-II Top, Middle& Bottom), (ii)CNPB-29 Omission of Seam-I Top- to I Bottom (iii)Based on Stratum contour.
	F7-F7	NW-SE to swerving to E-W	Northerly	20-80m	(i) Omission of Seam-III in boreholes CNPB-28, 20 & 68. (ii) CNPB - 61 Omission of Seam-II Top to Seam-I Bottom (iii) CNPB-25 Omission of seam floor of Seam-II MB to Seam-I Bottom

						(iv) CNPB - 29 Omission of Seam-I Top to Seam-I Bottom.
		F8-F8	NW-SE	North Easterly	10 – 20m	(i) Reduction in parting between Seam II Top & II CNPB-94 & KB-17 (ii) Omission of Seam-IVA & Seam-IV in CNPB-40 (iii)Seam-III Top to Seam-IV A in CNPB-38 (iv) Seam-III Bottom in CNPB-32 (v) Seam-II in CMKPB-11
		F9-F9	E-W, Abuts against fault F-8 near BH CNPB -30	Northerly	20-40m	Based on stratum contour plan
		F10 - F10	NW-SE curvili near fault trendin g almost E-W	Northerly	20-60m	(i) Seam-II Bottom to IVA in CNPB-78 (ii) Based on stratum contour.
		F11 - F11	Curvili near fault Trendi ng almost E-W	Northerly	20-60m	(i) Based on Stratum Contour plan (ii) Omission of Seam-I in boreholes CNPB - 83 & CNPB 135

F12 - F12	Curvili near fault Trendi ng almost E-W	Northerly	20m	(i) Intersected in Borehole CNPB-80 where Seam-I Top & Middle is faulted (ii) Based on Stratum Contour Plan
F13 - F13	E-W	Northerly	20 - 40 m	(i) Roof of Seam - IITop & Middle Combined is faulted in borehole CMKPB- 5. (ii) Based on Stratum Contour Plan.
F14 - F14	E-W	Northerly	40-60m	(i) Roof of Seam II Top & Middle combined is faulted in borehole CMKPB-5 (ii) Based on stratum contour plan.
F15 - F15	Limits the bound ary of Easter n-southe rn « Sector of the block Major fault trendin g almost E-W.	Southerly	More than 200m throw	Raniganj and Barren Measure formations are in juxtaposition with Barakar
NEW FAULTS				
FN-16	WNW-ESE	NEN	20m	(i) Redelineation of incrop of seam 1 cross section (ii) Revision of Floor contours of seam-I

FN-17	NW-SE ion in the East Sector within the quarriable zone.	NE	5m	(i) Redelineation of incrop of seam 1 cross section (ii) Revision of Floor Continuer plan (iii) Geological Cross Section additional.
FN-18	NW-'SE Location in the Central sector	NE	Amount of throw could not be establis hed	Geological Cross Section
FN-19	WNW-ESE	NNE		Geological Cross Section

Structure of PB (North West)

Pakri Barwadih North West area of the Block, the general strike of the formation in the block is almost east-west. The local swing in the strike at places is due to rolling dip. The strata are dipping at 10° to 12° southerly.

The block is traversed by 8 numbers of faults. Among these, 3 faults are varying from o. m to 50 m. Fault F1 is the major fault varying in through from 160111 to 180m. This fault runs approximately along southern to western boundary of the block. The trend of the fault is NW-SE and except faults F7 & F8, all are extending in metamorphic terrain.

Description of Faults Interpreted in PB NW

FAULT NO.	LOCATION	NATURE	TREND & THROW	BH. NO.	DEPTH (m)	EVIDENCES
F1-F1	Located near southern to Western boundary	Oblique fault	NW-SE & 160-180m	MNPB-25	274.50	• Seam K-1 to K-5 & Local-L faulted in borehole MNPB-25 • Interpreted based on' level

								difference of seam on either side of fault • Metamorphics has come in juxtaposition of Gondwana in north western part of the block • Equivalent to fault F3 Of western section of Pakri-Barwadih block
		F2-F2	Located in Central the part-of the block	Oblique fault	NW-SE & 0-40	MNPB-4	170.00	• Seam K-1 & K-2 faulted in MNPB-4 • Interpreted based on level difference of seam on either side of fault
		F3-F3	Located in the Central part-of the block	Oblique fault	NW-SE & 30-55	MNPB-7 MNPB 26	29.00 316.60	• Seam K2 is faulted in MNPB-7 • Seam K-1 and contact of Karharbari and metamorphic faulted in borehole MNPB-26 • Interpreted based on level difference of seam on either side of fault • Equivalent to F5 of western sector of

						Pakri Barwadih
F4-F4	Located in the North-eastern part-of the block	Obliq ue fault	NW-SE & 10-50	MNP B-11	87.00	• Seam K-1 To K-4 faulted in Borehole MNPB-11 • Interpret d based on Level difference of seam on either side of fault • Equivalent to F10 Of western sector of Pakri-Barwadih
F5-F5	Located in the North-eastern part-of the block	Obliq ue fault	NW-SE & 10			Extending from western sector of Pakri-Barwadih (Equivalent to fault F14)
F7-F7	Located in the Eastern part-of the block	Obliq ue fault	NW-SE & 0-10	MNP B-24	205	Seam K-3 faulted in borehole MNPB-24 equivalent to fault F8 of Pakri-Barwadih Block
F8-F8	Located in the Eastern part-of the block	Obliq ue fault	NW-SE & 0-5	MNP B-5 MNP B- 10	100 28	• Seam K-2 faulted • Seam K-5 faulted

Stratigrapic Sequences

Stratigraphic Sequences of PB west & East

The Barakar Formation contains five persistent coal seams numbered Seam-I to Seam-V in ascending order. Out of these, Seam-I & Seam-II have split into 3 sections, whereas Seam-III, Seam-IV and Seam-V split in two sections each. The split sections are designated as top, middle and bottom. The split sections of the seams merge to form composite seams designated for example as II TM for II Top & Middle combined and MB for Middle & Bottom combined.

The Karharbari formations underlies the Barakar formations and contain 5 thin non-workable coal seams namely K-1 to K-5. The average thickness of these coal sems is less than 1m.

The summarized sequence and details of coal seams in the block are given below

Sequence & details of Coal Seams

Seam/Parting	Thickness range (m)		General thickness (m)	No of Boreholes considered
Sea-V Top	0.39 (CNPB-34)	3.91 (CMKPB 13)	1.5	55
Parting	0.80 (CNPB – 32)	12.41 (CMKPB 13)		
Seam – V Bottom	0.18 (CNPB – 113)	2.20 (CMKPB 29)	1.00	58
Seam – V Comb	0.73 (CMKPB 37	6.00 (CMKPB 11)	1.50	19
Parting	2.16 (CNPB – 95)	29.11 (CMKPB – 64)		
Seam –IVA	0.20 (CNPB –	3.13 (CMKPB	1.25	47

		95)	– 105)		
	Parting	0.64 (CMKPB – 4)	12.37 (CMKPB – 30)		
	Seam – IV Top	0.90 (CNPB-26)	7.88 (CNPB-68)	3.00	26
	Parting	0.90 (CNPB-105)	17.59 (CNPB-53)	-	-
	Seam – IV Bottom	0.65 (CNPB – 86)	7.64 (CNPB-134)	2.50	26
	Seam –IV Comb	2.10 (CNPB-131)	14.61 (CNPB-144)	8.00	53
	Parting	0.98 (MNPB – 25)	44.31 (CMKPB – 37)	-	-
	Seam III Top	0.48 (CMKPB 12)	3.75 (CMKPB-10)	1.50	56
	Parting	0.94 (CMKPB 15)	28.88 (CMKPB 10)		
	Seam III Bottom	0.16 (CNPB – 85)	3.10 (CNPB – 22)	1.25	56
	Seam III Comb	0.48 (CNPB-7)	3.74 (CNPB-37)	1.50	31
	Parting	1.97 (CNPB –	45.97 (CNPB -		

	48)	91)		
Seam – II Top	0.25 (CMKPB-4)	15.46 (CMKPB – 10)	8.00	60
Parting	Nil	31.93 (CNPB-31)		
Seam – II Middle	2.98 (CMKPB-30)	20.04 (CNPB – 34)	8.00	56
Seam-II TM	10.28 (CNPB-17	20.26 (MNPB-22)	12.00	39
Parting	0.77 (CNPB-131)	10.75 (CNPB 72)		
Seam-II Bottom	1.40 (CNPB-29)	14.56 (CMKPB-10)	7.00	80
Seam – II MB	13.85 (CMKPB-29	22.51 (CNPB-30)	16.00	12
Seam-II Comb	17.70 (CMKPB-8)	28.67 (CNPB-32)		3
Seam-I Top	0.21 (CMKPB-12)	11.36 (CNPB-124)	2.50	81
Parting	1.00 (CNPB-110)	18.77 (CNPB-91)		
Seam-I Middle	0.42 (CNPB-	10.13 (CNPB-	2.50	90

	106)	110)		
Seam-I TM	3.85 (CNPB-90)	11.95 (CNPB-125)		6
Parting	0.85 (CNPB-44)	23.62 (CNPB-72)		
Seam-I Bottom	0.20 (CNPB-108)	8.10 (CNPB-134)	2.00	64
Seam-I MB	4.70 (MNPB-11)	11.88 (CMKPB-25)		6
Seam – Comb	7.96 (CNPB - 78)	13.76 (CMKPB-35)		3
Parting	1.80 (CNPB-72)	35.75 (CNPB-73)		
Local	0.06 (MNPB-38)	5.56 (CMKPB-5	1.50	72
Parting	4.72 (CMPB-69	78.89 (CNPB-88)		
Seam – K5	0.08 (MNPB-38)	2.22 (CNPB-79)	0.75	39
Parting	2.27 (CNPB-80)	81.25 (CNPB-124)		
Seam – K4	0.09 (CNPB-	3.04 (CNPB-	0.75	34

		124)	90)		
		Parting	1.20 (CNPB-106)	29.75 (CMKPB-36)		
		Seam – K3	0.08 (CNPB-90	2.48 (CNPB-116)	1.25	33
		Parting	0.50 (CNPB-110)	33.40 (CMKPB-20)		
		Seam – K2	0.05 (CNPB-124)	4.80 (CNPB-123)	1.25	36
		Parting	1.04 (CNPB-101)	48.00 (CNPB-128)		
		Seam – K1	0.10 (CNPB-52)	6.45 (CNPB-105	1.50	50
		Note : i) TM Stands for Top & Middle Merged ii) MB Stands for Middle & Bottom Merged				

2.2.3	Geological Block Area " Ha"	**West & East**	**NW**	**Total**
		3943.76	485.16	4428.92
2.2.4	Status of Exploration of the block	Phase wise & Agency wise exploration status		

Agency/Type	Period of Drilling	Drilling	
		No. of B.H	Meterage
1. GSI/Regional	1961-1971	KB-1 to 26 (26 BHs)	8177.23

	2. CMPDI a. Promotional (Semi-regional)	Dec 1999 – April 2001	CMKPB-1 to 38 (38 BHs)	10482
	b. Non-CIL (detail drilling)	Jan 2003 to June 2004	CNPB-1 to 135 (135 BHs)	24943.60
	Sub-Total (1&2)		199	43602.83
	3. MECL for PB North West (Sector-A)	2008 to 2012	MNPB-1 to MNPB-38 (33 BHs)	4282.70
	4. CMPDI	2018-2020	62	31087.80
	Total (1,2, 3 & 4)		294	78973.33
2.2.5	Area covered by 'detailed' exploration within the block (sq. km)			

Sl. No.	Area/Type	Area in sq. Km.
1	PB West & East (Explored)	17.74
2	PB NW (Explored)	4.85
3	Regionally Explored	21.69
4	Outside Block Boundary	2.67
	Total Area	46.95

2.2.6	Whether entire lease area has been covered by 'detailed' exploration.	NO
2.2.7	No. of boreholes drilled within the block	• GSI : 26 BHs • CMPDI : 234 BHs • MECL : 33 BHs
2.2.8	Whether any further	The southern portion of the Pakri-Barwadih Block covering around 12 sq. km. area has also not been explored in detail.

<table>
<tr><td></td><td>exploration/study is required or suggested and time frame in which it is to be completed</td><td>A detailed exploration programme has been proposed to convert the indicated reserve into proved category and to develop underground mine plan.

Detailed exploration is being carried out in this area, involving drilling of 26000 m, as estimated by CMPDI. The same shall be completed by December 2025.</td></tr>
<tr><td>2.2.9</td><td>Year wise future programme of exploration</td><td>A detailed drilling of 26000m is to be completed by CMPDI by December 2025.
<table>
<tr><th>Period</th><th>Meterage</th><th>Location</th><th>Target</th></tr>
<tr><td>Aug 2023 to Dec 2025</td><td>26000 m</td><td>Dip side of PB coal block and Dump A & B</td><td>Negative proving of Dump A & B and to convert the indicated reserve into proved category and to develop underground mine plan.</td></tr>
</table></td></tr>
<tr><td>2.2.10</td><td>Overall borehole density within the block (no./ sq. km) approx</td><td>10 BHs/Sq. Km. in proved Reserve Area and 1 Bhs/Sq. km. in indicated Reserve area.</td></tr>
<tr><td>2.2.11</td><td>No of Seams available as per GR (Geological Report)</td><td>• Barakar: 5 persistent coaly horizons
• Karharbari: 5 thin coaly horizons
• Local: 1 coaly horizon</td></tr>
<tr><td>2.2.12</td><td>Seams not considered for Mining with Reasons</td><td>PB West & East: Karharbari (K1 to K5) & Local seams (L Seam) are not considered by opencast mining.</td></tr>
<tr><td>2.2.13</td><td>Dip of the Seam</td><td>10° - 15°</td></tr>
<tr><td>2.2.14</td><td>Seam wise thickness,</td><td>Thickness of Coal Seams & Partings in PB (West & East)</td></tr>
</table>

depth and reserve

Particular	West Quarry		East Quarry	
	Max.	Min	Max.	Min.
Overburden	251.65	10.39	266.81	6
Seam-V Top	3.24	0.36	3.91	0.84
Parting	7.19	0.8	4.89	0.82
Seam-V Bottom	3	0.29	2.04	0.21
Parting	24.97	2.16	19.95	5.88
Seam-IV Top	7.88	0.9	6.57	2.34
Parting	6.76	0.9	17.59	16.38
Seam-IV Bottom	7.64	0.65	6.56	0.87
Parting	44.31	5.1	22.93	5.31
Seam-III Top	3.75	0.23	3.22	0.49
Parting	24.75	1.1	16.94	0.94
Seam-III Bottom	3.1	0.16	2.41	0.21
Parting	45.97	3.39	33.72	1.97
Seam-II Top	12.7	0.74	11.22	0.25
Parting	31.93	1.2	28.12	1.34
Seam-II Middle	20.04	1.75	10.98	3.5
Parting	6.26	0	5.8	0.97
Seam-II Bottom	11.4	1.4	14.02	1.99
Parting	30.43	0.21	27.94	4.74
Seam-I Top	11.36	0.45	4.95	0.42
Parting	18.77	1	14.73	1.6

Seam-I Middle	10.13	0.42	6.71	0.87
Parting	16.35	0.95	18.7	0.85
Seam-I Bottom	8.1	0.2	4.8	0.25

Thickness of Coal Seams & Partings in PB (North West)

Sl. No	Seam parting	Min	Max.
1	V COMB	3.24	5.9
2	Parting	3.72	27.16
3	M COMB	5.15	10.04
4	Parting	0.98	30.55
5	II Top	6.96	10.61
6	Parting	1.09	5.12
7	II MID	7.17	11.68
8	Parting	0	0
9	II T+M	15.97	20.26
10	Parting	1.4	24.22
11	II BOT	2.85	6.3
12	Parting	5.89	15
13	I TOP	0.42	3.79
14	Parting	0.52	4.51
15	I MID	1.15	8.73
16	Parting	0.17	4.19
17	I BOT	1.01	4.17
18	Parting	0	0
19	I M+B	4.7	11.88

20	Parting	16.8	27.68
21	LOCAL (L)	0.06	2.35
22	Parting	16.39	29.67
23	K-5	0.08	1.32
24	Parting	4.74	12.65
25	K-4	0.28	1.74
26	Parting	4.4	9.85
27	K-3	0.45	1.86
28	Parting	8.45	19.58
29	K-2	0.06	2.99
30	Parting	1.95	13.84
31	K-1	1.19	4.68

SEAM WISE AND DEPTH WISE OPENCAST RESERVES
(In '000 Tonnes)

Seam / Depth	0-50	50-100	100-150	150-200	200-250	250-300	Total
V COMB	26	891	2150	2312	803	3	**6185**
IV COMB	32	2657	4108	3430	1485	11	**11721**
II TOP	35	3611	2897	2592	1226	11	**10372**
II MID	220	4297	3190	2999	1514	13	**12233**
II T-M	389	10758	5631	4660	1193	0	**22631**
II BOT	695	5011	2630	2639	1117	6	**12098**
I TOP	1081	2927	1355	1240	496	0	**7099**
I MID	1485	1670	1039	216	2	2	**4414**
I BOT	862	629	276	104	1	1	**1873**
I M+B	2366	6632	3407	4115	1537	5	**18062**

TOTAL	**7191**	**39083**	**26681**	**24307**	**9374**	**52**	**106688**

SEAM WISE AND DEPTH WISE UNDERGROUND RESERVES PB (NW)
(in '000 Tonnes)

Seam/Depth	<300	>300	TOTAL
Local	0	2597	2597
K-5	128	0	128
K-4	4209	2	4211
K-3	3334	9	3343
K-2	5355	20	5375
K-1	15023	219	15242
TOTAL	**28049**	**2847**	**30896**

Summary of reserves of West & East Quarry (Million tonnes):

UNFC Code	Type	Reserves
111	Proved	703
211	Feasibility mineral reserves	636
222	Indicated mineral reserves	733
	Total (111 + 222)	**1436**

Summary of reserves of NW Quarry (Million tonnes):

UNFC Code	Type	Reserves
111	Proved	134.47
222	Indicated mineral reserves	3.114
	Total (111 + 222)	**137.584**

2.2.15	Methodology of reserves estimation (also mention if any software package has	Reserve Estimation for Pakri Barwadih (West & East) Reserves for all the potential coal seams of Barakar formation i.e., Seams I bottom - Seam V top except IV-A & Local Seams have been estimated by utilizing isochore of individual coal seams. In this isochore method, the areas between successive isochores were determined with the help of digital planimeter

	been used).	which has been multiplied with the average thickness of successive isochores to arrive at volume of chore. The specific gravity of 1.28 + 1 % of ash% has been considered for estimation of tonnage of different coal seams. RESERVES of PB North West Area The procedure adopted for estimation of reserves of coal in Pakri Barwadih North West Coal Block is fundamentally based on the specific geological factors which determines the extent to which correlation, interpolation of data can be projected for building up a stratigraphic and structural model of the lay and disposition of the coal seams. The structural model is depicted in various plates illustrating vertical cross sections and floor contour plans. The dimensional model with quality overalls are presented in the individual seam folio plans. Detailed exploration in Pakri - Barwadih - A Coal Block, District Hazaribagh, Jharkhand has established the presence of 10 Nos. of seams; 5 each coal bearing horizons belonging to Barakar formations and Karharbari formation respectively. In ascending order these are seam K-1, K-2, K-3, K-4, K-5 in Karharbari Formation and local(L), I, II, IV & V In Barakar Formation. Seam I splits into 3 sections viz. I Top, I Middle & I Bottom at places. Seam I Bottom and I Middle combined and form single seam namely I Bottom + Middle. Similarly, Seam II also splits into 3 sections viz. II Top, II Middle and II Bottom. Seam II Top and II Middle coalesce to form single seam as II Top + II Middle in eastern part. In Pakri Barwadih North West (Sector-A) Coal Block Seam V & IV occur as a combined seam. The dimensional and quality aspects of the seams viewed in the spatial framework with reference to the ground surface have indicated the potentiality for mining of Seams. Seam I - Bottom, I - Bottom + I - Middle, I - Middle, I-Top, II-Bottom, II Middle, II Top, II Top+ Middle, IV Combined & V Combined together as the opencast proposition, while Seam-Local (L) & K-1 to K-5 can be mined by underground method. The entire quarriable area, considering Seam-I as base seam occurs in less than 300 m depth. In borehole MNPB-13 located outside northern boundary, Seam K1 & K2 of Karharbari Formation are intersected at shallower depth. Besides, as per structure evolved, coal seams (K1 to K5) of Karharbari are likely to extend outside the northern boundary of the block in the northeastern area. The isochores, isograde and the floor contours have been drawn

by using MINEX software. It is assumed that the variation between any two points of observation is uniform and gradual.

The underground reserves for the seams have been estimated based on I- 30 thickness and quality of the seam. The I-30 thickness has been delineated including carbonaceous shale bands upto 0.30m and non-combustible bands upto 0.05m thickness. However, all non-combustible bands (NCB) of >0.05m thickness and carbonaceous bands of > 0.30 m have been excluded. The quarriable reserves have been estimated on the basis of I-100 thickness where the carbonaceous bands up to 1 m thickness have been included in the seam and dirt bands more than 1 m in thickness & obvious bands more than 0.05m in thickness have been excluded.
The minimum workable thickness for the estimation of open cast and underground reserves of the seam has been considered as 1.00 m and 0.90m/1.20m respectively.

In open cast, reserves have been estimated at 1.00 m. thickness interval while in underground, reserves have been estimated at 0.90m to 1.20m, 1.20m to 1.50m, 1.50m to 1.80m, 1.80m to 2.00m, 2.00m to 2.50m, 2.50m to 3.00m, 3.00m to 3.50m, 3.50m to 5.00m, 5.00m to 10.00m thickness ranges and above 10.00m interval.

The seams having UHV less than 1300 K/Cal/Kg have been considered as ungraded coal and have been marked in seam folio of respective seam. Ungraded coal zones have been included in over burden.

Areas have been identified where the seams are not developed at all. The limits of these zones of non-development have been marked by taking half of the influence of the boreholes with positive seam intersection. These limits have also been considered to be the line of zero seam thickness and the workable limits were delineated accordingly. The areas falling within <1.00 m thickness zone have not been considered for estimation of opencast reserves in case of underground reserves areas <0.90 m./ 1.20 m. have not been taken in account for reserves estimation.

Line of split has been considered as 1.00m parting between two sections. Though in few cases the parting between two consecutive seams is less than 1 m, seam is considered split as it occurs in small patches. Likewise, if the seam is found coalesced in a small patch has been considered split.

40m barrier have been drawn from Khora Nala, its tributary and road.

		No barrier has been drawn along the kucha roads which connect the different parts of the block and small nalas. The reserves have been estimated upto the trace of the floor of the incropping coal seams within the block. In incrop region while estimating the reserves, average of thickness has been considered. An overall deduction of 10% is applied to the gross tonnage from each seam to arrive at the net-in-situ reserves of coal to account for data gaps, wash out zones, abrupt change in seam thickness and the reserves have been rounded off to the nearest multiple of 1000 tonnes. Heave zone of respective seam has excluded while estimating reserves. All volumes of coal are estimated by isochore method. The reserves of the seam have been calculated by using MINEX Software. The standard formula which is universally accepted has been used for calculating the gross reserves: R = A X Th. X Sp. Gr. Where, R = Gross Reserves in thousand tonnes A = Area in Sq.m Th = Thickness in metre Sp. Gr. = Specific Gravity of coal for a specific grade
2.2.16	Average GCV	West & East Quarry: G-10 North West Quarry: G-8
2.2.17	Gross Geological Reserve of the block "Mte"	West & East: 1595.64 / NW: 135.32 / **Total: 1730.96**
2.2.18	Net Geological Reserve of the	West & East: 1436.000 / NW: 137.584 / **Total: 1573.584**

	block "Mte"	Net OC	707.000	121.030	828.030
2.2.19	Minable Reserve of the block "Mte"	West & East	NW		**Total (for OC)**
		519.34	143.73		**663.07**
2.2.20	Blocked Reserve "Mte"	West & East	NW		**Total (for OC)**
		187.66	15.43		203.90
		Extractable from barrier and batter coal between PB-West and PB-NW – 38.13 (Will be added to the reserves of PB-NW)			
		Total (for OC) – 164.96			
		(Barrier Loss: 58.74 Mt)			
		(Batter Loss: 106.22 Mt)			
2.2.21	Corresponding extractable reserve of the block "Mte"	West & East	NW		**Total (for OC)**
		503.38	138.96		**642.34**
2.2.22	Percentage of Extraction	77.58%			
2.2.23	Reserve already depleted (Base date of Mining Plan)	West & East	NW		**Total (for OC)**
		47.753 Mt (2016-17 to 2022-23)	-		**47.753**
2.2.24	Balance Reserve (as on Base Date)	West & East	NW		**Total (for OC)**
		455.627	138.960		**594.587**

CHAPTER – 3

MINING

	Parameters	Details
3.1	MINING METHOD	
3.1.1	Existing method of mining if the mine is under operation	In the present Mining Plan, coal from PB blocks is envisaged for extraction of coal by opencast method of mining. Coal shall be extracted up to 300m. depth line only by mixed slicing method through deployment of shovel-dumper combination. Horizontal slicing method shall be adopted to extract coal from PB North West and East Quarry while combination of inclined and horizontal slicing method shall be adopted to extract coal from PB West Quarry.
3.1.2	Proposed method of mining with justification on suitability of method of mining	Given below.
	PROPOSED METHOD OF MINING FOR PB COAL BLOCK Considering the geo-mining characteristics of the block and for conservation of resource, it is proposed to extract the coal reserves up to up to a depth of 300m. using open cast mining Method because of following reasons – 1. The coal seams are in cropping at a shallow depth. 2. The OB: Coal ratio is favourable (3.95:1) for opencast mining. 3. Higher percentage of recovery as compared to underground mining. 4. The mining by opencast method shall be economical against underground method. 5. The opencast mining operations are comparatively safer and ensure higher recovery of coal resource. Three distinct quarries have been carved out of Pakri Barwadih Coal block namely, a. Pakri Barwadih West b. Pakri Barwadih East c. Pakri Barwadih North-West Existing seams beyond 300 m. depth shall be considered for Underground mining	

at later stage, subsequent to completion of drilling/detailed exploration in the area. No underground mining shall be carried out in the PB-NW and PB-East as all the seams are extracted by opencast working.

PB WEST & EAST

The Geological & Mining characteristics of the PB West & East depicts total 12 workable splits contained in 5 seams i.e. seam-I to Seam V is considered for opencast mining. Seam I occurrence is not reported in most of the Boreholes, as a result mining shall be carried out in patches. In general, the coal seams are dipping at 1 in 3 to 1 in 5 towards south. As per Geological Report prepared by CMPDIL, the Karharbari formations contain five thin non workable seams namely K1 to K5. The average thickness of these seams is less than 1 m. The deposit has therefore been proposed for mining by opencast method up to the Seam I BOT Floor up to a depth of 300 m.

WORKABLE SEAMS IN PB WEST & EAST QUARRY

S.No.	Particulars	Thickness	West Quarry		East Quarry	
			Max	Min	Max	Min
1	Seam V Top	m.	3.24	0.36	3.91	0.84
2	Parting	m.	7.19	0.8	4.89	0.82
3	Seam V Bottom	m.	3	0.29	2.04	0.21
4	Parting	m.	24.97	2.16	19.95	5.88
5	Seam IV Top	m.	7.88	0.9	6.57	2.34
6	Parting	m.	6.76	0.9	17.59	16.38
7	Seam IV Bottom	m.	7.64	0.65	6.56	0.87
8	Parting	m.	44.31	5.1	22.93	5.31
9	Seam III Top	m.	3.75	0.23	3.22	0.49
10	Parting	m.	24.75	1.1	16.94	0.94
11	Seam III Bottom	m.	3.1	0.16	2.41	0.21
12	Parting	m.	45.97	3.39	33.72	1.97
13	Seam II Top	m.	12.7	0.74	11.22	0.25
14	Parting	m.	31.93	1.2	28.12	1.34

15	Seam II Middle	m.	20.04	1.75	10.98	3.5
16	Parting	m.	6.28	0	5.8	0.97
17	Seam II Bottom	m.	11.4	1.4	14.02	1.99
18	Parting	m.	30.43	6.21	27.94	4.74
19	Seam I Top	m.	11.36	0.45	4.95	0.42
20	Parting	m.	18.77	1	14.73	1.6
21	Seam I Middle	m.	10.13	0.42	6.71	0.87
22	Parting	m.	16.35	0.95	18.7	0.85
23	Seam I Bottom	m.	8.1	0.2	4.8	0.25

PB NORTH WEST

The Geological & Mining characteristics of the PB North-West depicts total 10 nos. of coal seams, 5 each coal bearing horizons belonging to Barakar & Karharbari formation respectively. In ascending order these are seam K-1,K-2, K-3, K-4,K-5 in Karharbari formation and Local(L), I, II,IV & V in Barakar formation. Seam I splits into 3 sections viz. I Top, I Middle & I Bottom. At places Seam I Bottom & I Middle combined and form single seam namely I Bottom + Middle. Similarly, Seam II also splits into 3 sections viz. II Top, II Middle & II Bottom. Seam II Top & II Middle combined to form a single seam as II Top + II Middle in eastern part. Seam V & IV occur as a combined seam.

The block is traversed by 8 nos of faults. Among these, 3 faults are varying from 0 m. to 50 m. Fault F1 is the major fault varying in through from 160m to 180 m. this fault runs approximately along southern to western boundary of the block.

The general strike of the formation is almost east-west. The strata is dipping at 10° to 12° southerly.

WORKABLE SEAMS IN PB NW QUARRY

S.No.	Particulars	Unit	Thickness		Usual/Mean
			Max	Min	
1	Seam V comb	m.	5.9	3.24	1.50

2	Parting	m.	27.16	3.72	
3	Seam IV comb	m.	10.04	5.15	8.00
4	Parting	m.	30.55	0.98	
5	II Top	m.	10.61	6.96	8.00
6	Parting	m.	5.12	1.09	
7	II Middle	m.	11.68	7.17	8.00
8	Parting	m.	0	0	
9	II T + M	m.	20.26	15.97	12.00
10	Parting	m.	24.22	1.4	
11	II Bot	m.	6.3	2.85	7.00
12	Parting	m.	15	5.89	
13	I Top	m.	3.79	0.42	2.50
14	Parting	m.	4.51	0.52	
15	I Mid	m.	8.73	1.15	2.50
16	Parting	m.	4.19	0.17	
17	I Bot	m.	4.17	1.01	2.00
18	Parting	m.	0	0	
19	I M + B	m.	11.88	4.7	
20	Parting	m.	27.68	16.8	
21	Local (L)	m.	2.35	0.06	1.50
22	Parting	m.	29.67	16.39	
23	K-5	m.	1.32	0.08	0.75
24	Parting	m.	12.65	4.74	
25	K-4	m.	1.74	0.28	0.75
26	Parting	m.	9.85	4.4	

27	K-3	m.	1.96	0.45	1.25
28	Paring	m.	19.58	8.45	
29	K-2	m.	2.99	0.06	1.25
30	Parting	m.	13.84	1.95	
31	K-1	m.	4.68	1.19	1.50

CHOICE OF TECHNOLOGY

The operational factors include

- Multi-Seam operation involving 12 workable splits contained in 5 seams i.e. seam-I to Seam V.
- Effective seam thickness varying from 1.00 to 12.00 m with majority of seams having less effective thickness varying from 1.00 to 2.50m.
- OB with varying parting thickness

Based on the above factors Shovel & Dumper combination is recommended due to the following reasons :

1. In view of multiple seams and equal nos. of inter burden layers to be tackled, an equipment system which is capable of dealing many layers at a time(flexibility) of operations with the help of smaller units has been recommended as shovel ,dumper combination.
2. The quality problem can be handled with the help of hydraulic excavators, which have three-dimensional movement of bucket. They are capable of carrying out selective mining.
3. Furthermore, to tackle about 19 MTPA coal & 75 MCum of OB from West & East Quarry, comparatively medium and higher size shovels of up to 10 Cum bucket capacity have been envisaged along with matching capacity of rear dumpers.
4. Flexibility of operation shall be available due to such equipment system.

CONSTRAINTS ON MINE DEVELOPMENT

The following constraints in opencast working of the deposit have been envisaged:

- Property is intervened by total 19 nos. of strike faults resulting into reduced

strike length as well as dislocation of seam.

- Steep gradient (~1 in 4) of coal seams needs adoption of modified inclined slicing method of working in mining mass.
- Problem of internal dump stability at the floor gradient of 1 in 3 to 1 in 5 (towards south).
- Large volume of OB handling (Avg SR 1:4.17)
- Limited dump space available outside the mining area where maximum dump height of 90m. has been considered.
- Most of the coal seams are thin with thickness ranging between 1m to 4 m. except seam IIB & II M which are 6 to 9 m.
- Highly splitted seams with variable parting.
- Congestion of mining equipment at OB & Coal benches.
- Considerably high rate of face advancement in the order of ~ 100m. (considering strike length of around 4.5 km. (avg.) and total seam thickness ~ 40m.(avg.))

PIT FORMULAION STRATEGY:

The mine boundary for the pit has been delineated taking into consideration block boundary, surface features, strip ratio and external dump space required for continuity of mining. UPL line or pit boundary shall start from in-crop of seam as Eastern and North western query boundary is defined up to in-crop of seam 1, no coal shall be left which can be mined safely and economically.

There shall not be any barrier between PB NW, PB West, PB East quarries, hence no coal shall be sterilized. Reserves are blocked only in the barrier left against the adjacent mines and batters shall be governed by prevailing design standards.

Considering the above, the pit is formulated with maximum possible external OB dump on the dip side within the block and internal dumping in the de-coaled area. Pit optimization has been done considering constraint on space availability for dumping of waste.

In the present Mining Plan, coal from Pakri Barwadih Blocks is envisaged for extraction of coal by open cast method of mining. Coal shall be extracted up to 300m. depth only by mixed slicing method through deployment of shovel-dumper combination. Horizontal slicing method shall be adopted to extract coal from PB North West and East Quarry while combination of inclined and horizontal slicing method shall be adopted to extract coal from PB West Quarry.

Philosophy of Production as per present Mining Plan is as follows:

- The PB west Quarry has been planned to achieve a rated capacity of 19 MTPA from 10th year onwards. The production from PB west Quarry shall taper from 15th year and opencastable reserves of west quarry shall be completely exhausted by the end of 17th year.
- PB East Quarry shall restart producing from 15th year with an overlap of 3 years so as to reach the full capacity before the exhaustion of PB West Quarry and maintain the rated capacity of 15 MTPA till its exhaustion by the end of 29th year.
- The production from PB North-West Quarry shall commence from 3rd year onwards of production plan of Pakri Barwadih Block. PB North Quarry shall continue up to 51 years of mining operation at a rated capacity of 3 MTPA. Coal of Barrier & Batter locked between PB-NW & PB-West block shall be extracted from 40 years to 51 years.
- Total peak rated production from the block is 22 MTPA, which shall be achieved in 10th year and shall continue up to 15th year of mine life.

RATED CAPACITY:

Revised Mining Plan for Pakri Barwadih Coal Block has been prepared for a rated/peak capacity of 22.0 MTPA of Coal from Opencast mine. Out of which, 19 MTPA shall come from PB West & East Quarry and remaining 3 MTPA shall come from PB NW Quarry.

BASIC PROJECT AND MINE PARAMETERS:

The basic project parameters and mine parameters are given below:

Sl. No.	Parameters	Unit	Value
1	Net Geological Reserve	Mt	828.03
2	Extractable reserve by OC Method	Mt	642.34
3	OB Volume	M Cum	2537.02
4	Stripping Ratio	Cum/t	3.95

5	Target Capacity	Mt/Year	22
6	Tentative Mine Life	Years	52
7	Maximum depth	m.	300

SEQUENCE OF MINING:

As per the Approved Mining Plan, PB west Quarry was envisaged to operate by starting three separate pits along the strike viz WP-1, WP-2, WP-3 . Due to the small size of the pits, in the initial period, mine production was limited and gradually start producing 10 Mt by 5th year of production after about 3 km. strike length in Pit WP-4 gets developed. The mine production again start increasing from 11th year onwards gradually when the WP-2, WP-3 and WP-4 shall merge leading to longer strike length of more than 5 km. The Western Quarry was planned to achieve a rated capacity of 15 MTPA from the 12th year of operation and shall continue till 24th year (exhaustion of deposit).

Considering the creation of mine void for in-pit dumping by extraction of Seam I which has poor coal quality sequencing with other seams to maintain coal quality, and, progress direction of the mine varied from along the strike direction to towards dip (southern) side. We propose to advance the mine in the coming 5 years, towards south & south-east direction partially, till sufficient mine void is created for in-pit dumping.

Philosophy of Production as per present Mining Plan is as follows :

- The PB west Quarry has been planned to achieve a rated capacity of 19 MTPA from 10th year onwards. The production from PB west Quarry shall taper from 15th year and opencastable reserves of west quarry shall be completely exhausted by the end of 17th year.
- PB East Quarry shall restart producing from 15th year with an overlap of 3 years so as to reach the full capacity before the exhaustion of PB West Quarry and maintain the rated capacity of 15 MTPA till its exhaustion by the end of 29th year.
- The production from PB North-West Quarry shall commence from 3rd year onwards of production plan of Pakri Barwadih Block. PB North Quarry shall continue up to 51 years of mining operation at a rated capacity of 3 MTPA. Coal of Barrier & Batter locked between PB-NW & PB-West block shall be extracted from 40 years to 51 years.
- Total peak rated production from the block is 22 MTPA which shall be

achieved in 10th year and shall continue up to 15th year of mine life.

It is proposed to keep the strike length of around 4.5 km. and more in order to avoid the congestion of mining equipment at coal and OB benches.

Nallahs namely Khora, Dumuhani, Pakwa Nalla are traversing through the block. All the nallahs flowing through the blocks and interfering with the production regime shall be diverted preferably to the northern fringe of the block to free up the locked reserves so as to ensure minimum or no sterilization of coal.

Underground mining is proposed for depth beyond 300m., for which separate mining plan shall be submitted. Presently, detail exploration work is being carried out for preparation of Geological report for underground mining.

MINING SYSTEM PARAMETERS :

Elements of mining system have been determined in accordance with the parameters of excavation, transport equipment and parameters of drilling and blasting.

Sl. No.	Particulars	PB West & East	PB NW
1	Maximum Bench Height		
	Top OB	15 m.	15 m.
	Coal & Intervening parting	5-15 m.	5-15 m.
2	Proposed Maximum Bench Width		
	Working Bench	50 m.	40m.
	Non-working Bench width	25 m.	25 m.
3	Width of the Permanent Haul road	30 m.	25m.
4	Width of the temporary transport ramp	10 m.	10 m.
5	Usual height of the spoil dump bench (1 tier)	30 m.	30 m.
6	Bench Slope		
	OB Bench	70°	70°

	Coal Bench	70°	70°
	Dump bench	37°	37°
	Overall(ultimate) pit slope	37°	43°

PIT SLOPE DESIGN

Geo-Mining Conditions	Bench Parameters		
	Bench Height (m.)	Exposed Width (m.)	Angle (Degree)
Top soil/Sub Soil	6	9	70
Pit Benches in Coal & Sandstone	12	16	80
	OR		
	15	20	80

INTERNAL DUMP DESIGN

Geo-Mining Conditions	Bench Parameters		
	Bench Height (m.)	Exposed Width (m.)	Angle (Degree)
Internal Dump in drained condition	30	40	37
	Exposed bench width at 440 mRL (i.e. 90 m. from Top) should be 50m. width.		

WASTE DISPOSAL STRATEGY :

It was envisaged that, in initial years OB shall have to be exclusively dumped in the external dump. Dump A, B, C are earmarked to dump overburden produced from PB west Quarry. Dump D is earmarked to dump overburden produced from PB east Quarry for initial 2 years only. During the course of mining in the western Quarry, in pit dumping shall also be carried out when sufficient de-coaled area is available. In the later years, waste dump generated from PB East Quarry shall be dumped in the void created by workings of PB West Quarry. Here also intermittent in pit dumping shall be performed. Therefore no rehandling of external OB shall take place for PB West & PB East Quarry.

Presently, For PB West Quarry, OB is being accommodated in External Dump 'C' along with internal dumping at the Northern part of the Quarry in a proportion of

60% and 40 % respectively. Since Dump 'A' is already matured, it is proposed that, OB generation volume during the coming 5 years also shall be accommodated in External Dump 'C' and In Pit Dumping through 60% and 40% ratio tentatively. In the later stage of mine, external dump % will reduce and internal dumping volume shall increase.

For, PB East Quarry no external dump as well as internal backfilling is envisaged as per earlier approved Mining plan. All the waste will be used for backfilling purpose at Western Quarry.

For, PB NW Quarry, all the excavated wasted shall be stacked in external as well as internal dump as per earlier approved Mining plan.

The height of the external dump is proposed to be around 90m above ground level and final height of the internal dump is proposed to be 90m above ground level. This will ensure optimization of the life of the mine to extract maximum mineable coal.

Shovel-dumper spoil dumps will be formed in benches of 30m and slope of individual dump bench will be 37° (equal to angle of natural repose of OB material). The width of berm between two adjacent benches will be 30 m. Overall slope of dump works out to be 23° - 24°. Top soil wherever available will be stacked separately which will be used up for spreading over the completed OB dumps. For the formation of dumps and levelling of dumps, dozers will be used.

The waste disposal schedule is given below:

PB West & East Quarry :

Year	External dump (Mcum)		Internal dump (Mcum)		Total OB (Mcum)	
	Progressive	Cumulative	Progressive	Cumulative	Progressive	Cumulative
Up to Base year		151.45		11.2		162.65

(31.03.23)						
2023 - 24	36.92	188.37	24.61	35.81	61.54	224.19
2024 - 25	36.92	225.29	24.61	60.43	61.54	285.72
2025 - 26	38.11	263.40	25.41	85.84	63.52	349.24
2026 - 27	31.76	295.16	31.76	117.60	63.52	412.76
2027 - 28	32.75	327.92	32.75	150.35	65.51	478.27
2028 - 29	26.20	354.12	39.30	189.65	65.51	543.77
2029 - 30	27.00	381.11	40.49	230.15	67.49	611.26
2030 - 31	20.25	401.36	47.24	277.39	67.49	678.75
2031 - 32	21.44	422.80	50.02	327.41	71.46	750.21
2032 - 33	22.63	445.43	52.80	380.21	75.43	825.64
2033 - 34	22.63	468.06	52.80	433.01	75.43	901.07
2034 - 35	22.63	490.69	52.80	485.81	75.43	976.50
2035 - 36	24.11	514.80	56.26	542.08	80.38	1056.88
2036 - 37	25.29	540.09	59.01	601.09	84.30	1141.18
2037 - 38	18.00	558.09	60.50	661.59	78.50	1219.68
2038 - 39			69.60	731.19	69.60	1289.28
2039 - 40			67.35	798.54	67.35	1356.63
2040 - 41			67.35	865.89	67.35	1423.98
2041 - 42			67.35	933.24	67.35	1491.33
2042 - 43			67.35	1000.59	67.35	1558.68
2043 - 44			67.35	1067.94	67.35	1626.03
2044 - 45			67.35	1135.29	67.35	1693.38
2045 - 46			67.35	1202.64	67.35	1760.73
2046 - 47			67.35	1269.99	67.35	1828.08
2047 - 48			67.35	1337.34	67.35	1895.43
2048 - 49			67.35	1404.69	67.35	1962.78
2049 - 50			68.08	1472.77	68.08	2030.86
2050 - 51			46.00	1518.77	46.00	2076.86
2051 - 52			21.85	1540.62	21.85	2098.71
Total	406.64	558.09	1529.42	1540.62	1936.06	2098.71

PB NW Quarry :

Year	External dump (Mcum)		Internal dump (Mcum)		Total OB (Mcum)	
	Progressive	Cumulative	Progressive	Cumulative	Progressive	Cumulative

	Up to Base year (31.03.23)		Nil		Nil		Nil
	2025 - 26	3.04	3.04	1.07	1.07	4.11	4.11
	2026 - 27	6.08	9.12	2.13	3.2	8.21	12.32
	2027 - 28	2.22	11.34	9.48	12.68	11.7	24.02
	2028 - 29	2.28	13.62	9.72	22.4	12	36.02
	2029 - 30	2.28	15.9	9.72	32.12	12	48.02
	2030 - 31	2.28	18.18	9.72	41.84	12	60.02
	2031 - 32	1.56	19.74	6.64	48.48	8.2	68.22
	2032 - 33	2.79	22.53	5.41	53.89	8.2	76.42
	2033 - 34	2.79	25.32	5.41	59.3	8.2	84.62
	2034 - 35	2.79	28.11	5.41	64.71	8.2	92.82
	2035 - 36	2.79	30.9	5.41	70.12	8.2	101.02
	2036 - 37	2.79	33.69	5.41	75.53	8.2	109.22
	2037 - 38	3.28	36.97	4.92	80.45	8.2	117.42
	2038 - 39	3.28	40.25	4.92	85.37	8.2	125.62
	2039 - 40	3.28	43.53	4.92	90.29	8.2	133.82
	2040 - 41	3.28	46.81	4.92	95.21	8.2	142.02
	2041 - 42	3.28	50.09	4.92	100.13	8.2	150.22
	2042 - 43	2.71	52.8	5.49	105.62	8.2	158.42
	2043 - 44	2.71	55.51	5.49	111.11	8.2	166.62
	2044 - 45	2.71	58.22	5.49	116.6	8.2	174.82
	2045 - 46	2.71	60.93	5.49	122.09	8.2	183.02
	2046 - 47	2.71	63.64	5.49	127.58	8.2	191.22
	2047 - 48	1.39	65.03	6.81	134.39	8.2	199.42
	2048 - 49	1.39	66.42	6.81	141.2	8.2	207.62
	2049 - 50	1.56	67.98	7.64	148.84	9.2	216.82
	2050 - 51	1.94	69.92	9.46	158.3	11.4	228.22
	2051 - 52	1.94	71.86	9.46	167.76	11.4	239.62
	2052 - 53	0.23	72.09	11.17	178.93	11.4	251.02
	2053 - 54	0.23	72.32	11.17	190.1	11.4	262.42
	2054 - 55	0.23	72.55	11.17	201.27	11.4	273.82
	2055 - 56	0.23	72.78	11.17	212.44	11.4	285.22
	2056 - 57	0.23	72.96	11.17	223.61	11.4	296.57
	2057 - 58	0	72.96	11.4	235.01	11.4	307.97
	2058 - 59	0	72.96	11.4	246.41	11.4	319.37
	2059 - 60	0	72.96	10.3	256.71	10.3	329.67
	2060 - 61	0	72.96	10.04	266.75	10.04	339.71

2061 - 62	0	72.96	9	275.75	9	348.71
2062 - 63	0	72.96	9	284.75	9	357.71
2063 - 64	0	72.96	9	293.75	9	366.71
2064 - 65	0	72.96	9	302.75	9	375.71
2065 - 66	0	72.96	9	311.75	9	384.71
2066 - 67	0	72.96	9	320.75	9	393.71
2067 - 68	0	72.96	9	329.75	9	402.71
2068 - 69	0	72.96	9	338.75	9	411.71
2069 - 70	0	72.96	8.5	347.25	8.5	420.21
2070 - 71	0	72.96	7	354.25	7	427.21
2071 - 72	0	72.96	5.75	360	5.75	432.96
2072 - 73	0	72.96	3.5	363.5	3.5	436.46
2073 - 74	0	72.96	1.75	365.28	1.75	438.24
Total	**72.96**	**72.96**	**365.28**	**365.28**	**438.24**	**438.24**

3.1.3	Coal production capacity proposed "Mtpa"	22 Mtpa
3.1.4	Justification for optimization Coal production capacity	Considering the geo-mining condition, cumulative thickness of coal seams (~40m) and strike length of 4.5 Km, the production capacity of 19 Mty is justified from PB West & East Quarry. PB Northwest Quarry shall produce 3 Mtpa.
3.1.5	Calendar year from which the production will start	Mine is already in Production
3.1.6	Year of Achieving rated production	10th Year (FY 2032-33)
3.1.7	Coal production Plan "MT"	Year Wise production schedule is given below.

Year	PB -West		PB-East		PB-NW		PB Mine		
	Coal	OB	Coal	OB	Coal	OB	Total Coal	Total OB	S.R
2023 - 24	15.5	61.54					15.5	61.54	3.97
2024 - 25	15.5	61.54					15.5	61.54	3.97
2025 - 26	16	63.52			0.5	4.1	16.5	67.62	4.10
2026 - 27	16	63.52			1	8.2	17	71.72	4.22
2027 / 28	16.5	65.51			2	11.7	18.5	77.21	4.17
2028 - 29	16.5	65.51			3	12	19.5	77.51	3.97

3029 - 30	17	67.49			3	12	20	79.49	3.97
3030 - 31	17	67.49			3	12	20	79.49	3.97
3031 - 32	18	71.46			3	8.2	21	79.66	3.79
3032 - 33	19	75.43			3	8.2	22	83.63	3.80
3033 - 34	19	75.43			3	8.2	22	83.63	3.80
3034 - 35	19	75.43			3	8.2	22	83.63	3.80
3035 - 36	19	80.38			3	8.2	22	88.58	4.03
3036 - 37	19	84.30			3	8.2	22	92.50	4.20
3037 - 38	15	60.00	4	18.5	3	8.2	22	86.70	3.94
3038 - 39	6	33.50	8	36.1	3	8.2	17	77.80	4.58
3039 - 40	1.83	8.22	13.17	59.133 3	3	8.2	18	75.55	4.20
3040 - 41			15	67.35	3	8.2	18	75.55	4.20
3041 - 42			15	67.35	3	8.2	18	75.55	4.20
3042 - 43			15	67.35	3	8.2	18	75.55	4.20
3043 - 44			15	67.35	3	8.2	18	75.55	4.20
3044 - 45			15	67.35	3	8.2	18	75.55	4.20
3045 - 46			15	67.35	3	8.2	18	75.55	4.20
3046 - 47			15	67.35	3	8.2	18	75.55	4.20
3047 - 48			15	67.35	3	8.2	18	75.55	4.20
3048 - 49			15	67.35	3	8.2	18	75.55	4.20
3049 - 50			15	68.08	3	9.2	18	77.28	4.29
3050 - 51			10	46	3	11.4	13	57.40	4.42
3051 - 52			4.63	21.85	3	11.4	7.63	33.25	4.36
3052 - 53					3	11.4	3	11.40	3.80
3053 - 54					3	11.4	3	11.40	3.80
3054 - 55					3	11.4	3	11.40	3.80
3055 - 56					3	11.4	3	11.40	3.80
3056 - 57					3	11.4	3	11.40	3.80
3057 - 58					3	11.4	3	11.40	3.80
3058 - 59					3	11.4	3	11.40	3.80
3059 - 60					3	10.3	3	10.30	3.43
3060 - 61					3	10.04	3	10.04	3.35
3061 - 62					3	9	3	9.00	3.00
3062 - 63					3	9	3	9.00	3.00
3063 - 64					3	9	3	9.00	3.00
3064 - 65					3	9	3	9.00	3.00
3065 - 66					3	9	3	9.00	3.00
3066 - 67					3	9	3	9.00	3.00
3067 - 68					3	9	3	9.00	3.00
3068 - 69					3	9	3	9.00	3.00
3069 - 70					3	8.5	3	8.50	2.83
3070 - 71					3	7	3	7.00	3.33

ANIL DEV JAMTA
Deputy General Manager (Commercial)
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

	2071 - 72					3	5.75	3	5.75	1.92
	2072 - 73					2	3.5	2	3.50	1.75
	2073 - 74					1.46	1.48	1.46	1.48	1.01

3.1.8	Peak/Rated Capacity	
		By OC: 22 MTPA (Year of achieving 10th Year 2032-33)
		By UG: Not decided yet.
		Overall: 22 MTPA
3.1.9	Life of the mine :	
	By OC	51 Years
	By UG	Mining Plan for UG Mining shall be submitted, once the exploration work for dip side is completed.
	Overall	West Quarry: 17 Years East Quarry: 15 Years (3 Years overlapping period) NW Quarry: 49 Years
3.1.10	Whether the proposed external OB dump site is coal/ lignite bearing; If so, whether coal/lignite below waste disposal area is extractable.	The total external dumping outside the Quarry shall be accommodated in dumps A,B, C & D. External waste dumping area (A,B) has been selected on the northern side, beyond the in-crop of Seam – I Bottom as indicated in GR. CMPDIL drilled 8 nos. boreholes in this area. Karharbari seams are encountered in 7 boreholes. However these seams are erratic and impersistent in nature and lacks opencast potentiality. No attempts were made to estimate the reserves. Dump C has been planned on southern side over the area where the coal is beyond 300m depth line and thus suitable for exploitation by underground means. As such

		no coal shall get sterilized due to Dump C. Dump D has been planned on northern side of PB East quarry, over the non opencastable area where quarriable potential is not indicated in the GR.
3.1.11	Whether negative proving for coal / lignite in the proposed site for OB dump/ infrastructure has been done.	The infrastructure facilities and external waste dumping area (A, B) has been selected on the northern side, beyond the in-crop of Seam – I Bottom as indicated in GR. CMPDIL drilled 8 nos. boreholes in this area. Karharbari seams are encountered in 7 boreholes. However, these seams are erratic and impersistent in nature and lacks opencast potentiality. No attempts were made to estimate the reserves.
3.1.12	Results of any investigation carried out for scientific mining, conservation of minerals and protection of environment; future proposals.	Hydro Geological reports are attached in Annexure VI D.
3.1.13	Type of Equipment/ HEMM proposed	HEMM configuration are given below –

PROPOSED LIST OF HEMM FOR PB WEST AND PB EAST (19 MTPA)

COAL:

Sl No.	Equipment	As per Proposed Mining Plan revision for 19 MTPA	
		Size/Capacity	Nos.
1	Excavator	5.5 Cum	9
2	Excavator	3.5 Cum	5
3	Rear Dumper	60 T	56
4	Rear Dumper	35 T	35
5	RBH Drill	160 mm	15
6	Track Dozer	310 KW	15
7	Wagon drill	100 mm	3

TOP OB/PARTING/INTERBURDEN:

Sl No.	Equipment	Size/Capacity	Nos.
2	Excavator	10 m3	23
3	Excavator	3.5 m3	28
4	Rear Dumper	100 T	157
5	Rear Dumper	35 T	193
6	RBH Drill	250 mm	29
7	RBH Drill	160 mm	12
8	Track Dozer	310 KW	36

COMMON/AUXILIARY EQUIPMENT

Sl No.	Equipment	Size/Capacity	Nos.
1	Dozer with Ripper	510 KW	7
2	Motor Grader	205 KW	16
3	Wheel Loader	5 cum	6

4	Diesel Crane	75 T	3
5	Hyd. Rough terrain crane	30 T	6
6	Hyd. Rough terrain crane	12 T	7
7	Diesel Hyd. Pickup crane	8 T	9
8	Wheel Dozer	280 KW	8
9	Water Sprinkler	28 KL	16
10	Tyre Handler		5
11	Maintenance Van		3
12	Rock Breaker		3
13	Cable Handler		2
14	Heavy Duty Toeing Truck		2
15	Fire Tender		2

RECLAMATION EQUIPMENT

Sl No.	Equipment	Size/Capacity	Nos.
1	F E Loader	10 m3	1
2	Water Sprinkler	28 KL	2
3	Rear Dumper	60 T	3
4	Dozer (with ripper attachment)	410 HP	1
5	Farm Track/Tractor with trolley		1

PROPOSED LIST OF HEMM FOR PB NW (3 MTPA)

COAL:

Sl No.	Equipment	Size/Capacity	Nos.

PAWAN DEV JAMTA
Deputy General Manager (Geology)
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

1	Excavator	5.5 m3	2
2	Rear Dumper	60 T	18
3	RBH Drill	160 mm.	2
4	Dozer with Ripper attachments	410 HP	2
5	Wheel Dozer	410 HP	1
6	Coal Tippers (Coal body)	20 T	25

TOP OB/PARTING/INTERBURDEN:

Sl No.	Equipment	Size/Capacity	Nos.
1	Excavator	5.5 m3	3
2	Excavator	10 m3	3
3	Rear Dumper	60 T	20
4	Rear Dumper	100 T	18
5	RBH Drill (elec.)	250 mm	3
6	Dozer with Ripper attachments	410 HP	4
7	Dozer with Ripper attachments	850 HP	4

COMMON/AUXILIARY EQUIPMENT

Sl No.	Equipment	Size/Capacity	Nos.
1	Water Sprinkler	70 KL	3
2	Truck mounted DTH drill	100-120 mm	1
3	Mobile Rough Terrain Crane	70 T	1
4	R.T Crane	30 T	1
5	R.T.Crane	8T	1

6	F.E Loader	10 Cum	1
7	Hyd Shovel with Backhoe (Diesel)	1.2 -2.2 Cum	1
8	Wagon drill	100-120 mm	1
9	Diesel Bowser	16 KL	1
10	Rock Breaker		1
11	Fire Tender		1
12	Cable Handler		1
13	Tyre Handler		1
14	Tipping Trucks	10T	6
15	Maintenance Van		1
16	Heavy Duty Toeing truck		1

HAUL ROAD EQUIPMENT

Sl No.	Equipment	Size/Capacity	Nos.
1	Grader	280 HP	2
2	Vibratory compactor	30 TH	1
3	Wheel Dozer	460 HP	1

RECLAMATION EQUIPMENT

Sl No.	Equipment	Size/Capacity	Nos.
1	F E Loader	10 m3	1
2	Water Sprinkler	28 KL	2
3	Rear Dumper	60 T	3
4	Dozer (with ripper attachment)	410 HP	1
5	Farm Track/Tractor with trolley		1

CHAPTER - 4

SAFETY MANAGEMENT

S. No	Parameters	Details	
4.1	**Safety Management**		
	Important safety Aspects		
4.1.1	**Important Safety Aspects**	**Areas of concern**	**Remedial Measures**
	Major Risks and uncertainties to this project are anticipated as the followings : • Slope failure • Handling of explosives • Fly-rocks during heavy blasting • Movement of HEMM • Inundation due to surface water • Dust hazards • Fire Hazards due to spontaneous heating of coal • Hazards associated with use of electricity • Flooding of lower benches	Safety Management Plan	For complying with **Reg. 104** of CMR 2017, exercise shall be done to identify, assess and record the hazards of health and safety of the persons employed in the mine after consulting the Safety Committee and Internal Safety Organisation (ISO). Based on the above, Safety Management Plan (SMP) shall be formulated for overall management for developing and implementing the safety policy of the company. SMP shall contain, *inter alia*, plan to implement the policy, principal hazard management, standard operating procedure (SOP), monitor, evaluate and review the plan.
		Failure of OB/Coal Benches	Bench height of maximum 15.00 meters matching with the maximum reach of the digging and loading equipment has been ...

			proposed. This reduces chances of accidents due to fall of loose materials. All DGMS guidelines and regulations shall be strictly adhered to.
		Failure of Dump slopes	The internal and external Dumps have been benched at 30 meters height. Overall slope has been proposed to 23-24 degrees leaving 30 meters wide berm between two successive benches. This will reduce the chances of OB dump slope failure and subsequent damages. The dumps once sterile should be stabilized by bio reclamation. The overall dump height shall be +90 m from the original ground level. A slope stability study as per DGMS guidelines has already been carried out and attached as Annexure. All DGMS guidelines and regulations shall be strictly adhered to.
		Flooding of the mine	During the heavy monsoon period, the mining operation in the lower most benches may have to be stopped. Adequate pumping capacity on the basis of historical data of maximum rainfall and distribution of rainfall has been

			designed. But in the case of unprecedented rainfall, machineries may have to be withdrawn from lower benches temporarily and redeployed after dewatering in the lower benches again. Meanwhile they will be gainfully deployed in the upper benches.
		Precautions against danger of inundation from surface water	A careful assessment is to be made against the danger from surface water before the onset of rainy season. The necessary precautions shall be clearly laid down and implemented. A garland drain needs to be provided to drain away the surface rain water from coming into the mine. Garland drain shall be provided around OB dumps and working mines to course the rain water to main streams.
		Blasting in OB /Coal benches	Blasting shall be carried out under the direct supervision of statutory personnel and as per the permissions and regulations of DGMS.
		Fire in coal benches/stockyard	Spontaneous heating of coal will be controlled by continuous and regular movement of coal benches. In case any bench is idle it should be properly dressed and properly cleaned from coal dust at the time of stoppage.

		Accidents due to lack of proper space of movement in Mine.	Workers around shovel, dozer, dumper, drill and cranes must be warned to keep out of blind area so that operator may be able to see them clearly. Audio visual alarms are used for pre warning of persons around this machine. To overcome shortage of space if any, strict discipline will have to be inculcated among workmen and supervisors. At any given point of time, multiple benches will be worked together which will distribute the major producing HEMM at safer distances.
		Dust suppression & dilution of exhaust fumes	Water sprinklers shall be deployed in haul road. Spraying with water on all working faces shall be carried out. While drilling holes, it is necessary to use wet drilling for proper dust suppression. Maintaining the engine and exhaust conditioners properly, so as to keep emission gases within limits and regular checking of exhaust and recording of the same.
		Prevention of electric shocks	During mining operations, all the statutory provisions of the CEAR 2010 or latest editions and Indian standards for installation and maintenance of electrical equipment etc. shall be followed strictly.

		Disaster Management	The Mine will prepare a DMP (Disaster Management Plan) as per guideline. This plan is to be vetted by DGMS.
4.22	**A commitment from the company Board that the entire mining operation will be carried out as per the statutory provisions given under mines Act 1952, Coal Mine Regulation 2017 and wherever specific permission will be required the company will approach the concerned Authorities**	A commitment from the company Board has been provided in **Annexure- III**	

CHAPTER – 5

INFRASTRUCTURE FACILITIES

Sl. No.	Parameters	Details
5.1	Mine infrastructure required e.g. Equipment maintenance planning, Office buildings, Workshop, Power supply arrangement, Water supply etc.	Planning of Project Workshop and store has been done based on a comprehensive maintenance and repair program to achieve the high level of equipment availability, reliability and longer life. Maintenance and repair load of project workshop has been assessed on the basis of annual operating time, inter repair period, life of the equipment/ assemblies/ sub- assemblies, weight and size of the equipment/ assemblies/ sub-assemblies, man-hours required per repair/ maintenance, etc. Facility planning has been done for providing maintenance and repair facilities to all the major equipments deployed in the project, which include, Heavy earth moving machineries (such as dumper, dozer, shovel, drill, etc.), light motor vehicles, coal handling plant machineries, mine pumps and power supply equipments. The proposed project workshop and project store will facilitate the maintenance and repair requirement of mining, mechanical, electrical, transport and other auxiliary equipment and storage of spare-parts, sub- assemblies and consumables. For maintenance and repair of equipment, the following facilities has been envisaged: **HEMM WORKSHOP** : The maintenance workshop shall have concrete grade slab that is designed to support the heaviest unloaded vehicle in the quarry's fleet. It shall have minimum of six vehicle maintenance bays to handle the next larger size of the largest vehicle in the quarry equipment fleet. For maintenance and repair of equipment, the following facilities has been envisaged: a. Welding shop b. Tool store c. Electric shop

		d. Office space for workshop management e. Shift in charge room f. Washing facilities & toilets **Light vehicle Workshop:** A separate maintenance workshop for highway vehicles shall consist of a minimum of six bays with separate office and secure storage room for parts and tools. **Tyre Workshop:** This facility shall consist of a heavy floor slab sufficient to support the haul track and the forces induced from a floor jack or lift as required to change wheels tyres on the haul truck. **Equipment washing facility:** This facility shall include a large concrete grade slab with rail embedded to protect the slab from tracked equipment. The slab shall be sloped to direct water to the settlement basins. This facility shall include the washing equipment, including water cannon, access platforms, setting tanks, oil traps and oil collecting tanks. The settling tanks shall be designed to allow a small pay loader to drive in to the tank to collect large deposits of silt or other materials deposited from washing the vehicles.
5.2	Power supply & illumination.	**Main Sub-Station** The maximum power demand estimated for the mine including CHP is 32 MVA. (West & East – 23.5, NW – 8.5 MVA) Power is being arranged from NTPC North Karanpura STPP (NKSTPP) to the main receiving sub-station (220/33/11 KV) of the Pakri Barwadih project. Provision of 6 (Six) nos. of 11 KV DG sets have also been made to cater to the power requirement at the time of power failure. Other substations like coal, colony and CHP substation are for further distribution of power

		inside mine. All the 33kv substations will receive power at 33kv from double circuit power line originated from 33 KV switchgear of Main receiving substation. Quarry area is proposed to be illuminated by high mast towers located along quarry periphery with sodium vapour lamps on each tower of haul road. For illumination of inside of the quarry shall be done by metal-halide lamps. Illumination will be maintained as per the DGMS standards.
5.3	Drainage & Pumping Assessment of Volume of Water for Pumping, Pumping Capacity and Pump Selection	Three sources of groundwater have been identified: 1. Surface water such as existing ponds, reservoir, nala or rivers 2. Borewells 3. Mine sump water Presently, entire water requirement is being met through sump water and surface borewells. **Water Requirement** **West & East (m3/day)** | **NW (m3/day)** | **Total (m3/day)** 5,026 | 745 | 5,771 Raw water is stored in a bulk water reservoir from which water is treated and stored in a separate reservoir. • The pumping system has been planned separately for each pit considering simultaneous working. • The planning of de-watering of the mine has been done in such a way that as far as possible the working faces and haul roads remain dry. The layout of the quarry provides suitable gradient along the quarry floors and the benches to facilitate self-drainage of water to the lowest level of the quarry. • Proper drains are dug along both sides of haul road to keep the haul roads dry. Main sump at the lowest point of quarry shall have sufficient capacity to accommodate entire make of water. Assuming 20 hours of pumping and six days to

		pump out the total water, the required pumping rate shall be 7726 cum/hr. selecting 540 cum/hr pumps, the requirement is as given below. Initially 60m. head pumps shall be used for pumping out water from main sump. As the quarries advance on dip side lower head pumps shall be replaced by higher head pumps. A. Main pumps (160 lps X 60 to 300 m. head): complete with 6.6 KV 365 KW electricals and starters. 4% pump sets with electricals to be kept as standby for emergency. B. Diesel operating Pumps: 1. 80lps X 60 m head 2. 35 lpsx 60 m head C. Face pumps 11 lps x 30 m. head. D. Pipes: sufficient length of pipes of dis. 406 mm, 300 mm, 219 mm and 100 mm have been envisaged for above pumps depending upon capacity of pumps.
5.4	Coal Handling Arrangement: Brief details of CHP / Mode of dispatch, Coal quality and coal staking and handling arrangement	**CHP/Mode of Despatch:** The ROM coal brought from the quarry by tippers will discharge into the sizing plant. The CHP has been designed for 330 working days in a year for 3 shifts in a day having 8 effective hours in each shift. CHP facilities consist of the following units : • 3 nos of primary crushers of 1125 TPH rated capacity to crush coal from 1200 mm to 250 mm size. • Individual streams of rated capacity 1125 TPH from each sizing station to secondary crushing stations to crush coal from 250 mm to 50mm size. • Conveyor of rated capacity 2250 TPH and belt width 1800 mm from Secondary sizing station 1 and 2 up to Transfer house TH-2. Conveyor of rated capacity 1125 TPH and belt width 1400 mm from Secondary sizing station 3 up to Transfer house TH-2. • At TH-2, there is provision for conveying set-

		to the stockyard or to the Fixed CHP or to the emergency stockyard. • Conveying of coal till the stockyard is achieved through conveyors of rated capacity 3600 TPH. Stacking of coal in the stockyard is achieved through 2 nos. of stacking yard conveyors of rated capacity 1800 TPH each and 2 nos. of slewing stackers of rated capacity 1800 TPH each. • Reclamation of coal from the stockyard is achieved through 2 nos. of bucket wheel reclaimers of rated capacity 2500 TPH each and 2 nos. of reclaiming yard conveyors of rated capacity 2500 TPH each. • Coal reclaimed from the stockyard is conveyed to TH-2, through conveyors of rated capacity 2500 TPH, for further transportation by fixed CHP. • The fixed CHP consist of series of double conveyors (1W+1S) of rated capacity 2500 TPH for conveying coal from the mine end to the ground bunker located near the Railway loading point. • From the ground bunker, coal is transported through conveyors of rated capacity 4000 TPH to the rapid loading system consisting of two nos. of 400 tonnes capacity surge hoppers each containing 1 set of 4000 tph capacity rapid loading station with 1 x 110 Tonnes capacity pre-weigh hoppers. • One number of magnetic separator in each flow. • One number of metal detector in each flow. • One number of belt weigher to weigh the coal in each flow after secondary crushing. • Miscellaneous facilities like dust control system, firefighting and ventilation system, plant cleaning system etc. • Presently, coal from Pakri Barwadih is being dispatched through Banadag Railway siding which has capacity of 15 MTPA. For dispatch beyond 15 MTPA of coal from Pakri Barwadih Coal Mine, doubling of railway network from Banadag to Hazaribagh is

		required. Also, the dispatch of coal from mine to Banadag siding beyond 15 MTPA will be done through road.
5.5	Coal washing and the proposed handling/ disposal of rejects.	Coal quality parameters obtain from the proximate analysis of coal revealed that ash percentage is 34% which does not require commissioning of coal washery.

CHAPTER – 6

LAND REQUIREMENT

	Parameters	Details
6.1	LAND REQUIREMENT	
6.1.1	Total Land requirement for the mine in "Ha"	***Break up of pre-mining land type (indicative) and source of data.***

Sl.	Type		West & East	NW	Total
1	Tenancy	Agricultural	2524.443	113.557	2638.000
2		Habitation			
3		Grazing			
4		Barren			
5	Govt Non Forest	Agricultural	250.287	19.713	270.000
6		Habitation			
7		Grazing			
8		Barren			
9	Forest	Forest	1435.110	351.890	1787.000
	Total		4209.840	485.160	4695.000

6.1.2	During mining Land use details:	

Type	Land use/Proposed (Ha)	Land Use(End of life)(Ha)	Land Use (Post Closure) (Ha)						
			Agricultural land	Plantation	Water body	Public/ Company Use	Forest Land (Returned)	Undisturbed	Total
Excavation Area	1992.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backfilled Area	1294.00*	1294.00	713.00	581.00	0.00	0.00	0.00	0.00	1294.00
Excavated Void (shallow abandoned quarry)	698.00*	698.00	0.00	0.00	698.00	0.00	0.00	0.00	698.00
Without plantation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Top Soil Dump	43*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
External Dump (Old dump)	885.00	885.00	0.00	885.00	0.00	0.00	0.00	0.00	885.00
Safety Zone	10.00	10.00	0.00	10.00	0.00	0.00	0.00	0.00	10.00
Haul Road between Quarries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Road diversion	18.00	18.00	0.00	0.00	0.00	18.00	0.00	0.00	18.00
Diversion/ below River /Nala /Canal	58.00	58.00	0.00	0.00	0.00	58.00	0.00	0.00	58.00
Settling pond	12.00	12.00	0.00	0.00	12.00	0.00	0.00	0.00	12.00
Road & infrastructure area	391.00	391.00	0.00	358.00	0.00	33.00	0.00	0.00	391.00
Rationalisation area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Garland drains	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Embankment	30.00	30.00	0.00	30.00	0.00	0.00	0.00	0.00	30.00
Green Belt	18.00	18.00	0.00	18.00	0.00	0.00	0.00	0.00	18.00

	Parameters		Details							
	Water Reservoir /Area/ pit	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	UG entry	18.00	18.00	0.00	0.00	0.00	0.00	0.00	18.00	18.00
	Undisturbed/ Mining right for UG	1383.00	1383.00	0.00	0.00	0.00	0.00	0.00	1383.00	1383.00
	Resettlement	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Pit head power plant	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Water harvesting	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Agricultural land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	4695.00	4695.00	718.00	1777.00	700.00	109.00	0.00	1401.00	4695.00

**Within Excavation area*

6.1.3	Surface features over the block area	Existing surface features are, office buildings, crushing unit, coal evacuation system & Coal handling plant, Workshop, Transmission Lines, Telephone lines, water reservoir, Nallahs, roads, village basti , railway sieling etc.
6.1.4	No. of villages/Houses to be shifted	26 villages
6.1.5	Population to be affected by the project	8339 nos.
6.1.6	Proposed Rehabilitation programme	R&R shall be done as per policy of Govt of Jharkhand.
6.2	DETAILS OF LEASE	
6.2.1	Status of Lease	Mining Lease is not applicable since mining area land is being acquired by NTPC under CBA Act.
6.2.2	Esisting Lease Area "Ha"	Block Area West & East: 3943.76 NW: 485.16 Mining Lease is not applicable for the area being acquired under CBA Act.
6.2.3	Period for which Mining Lease has been granted/is to be renewed/ is to be applied for	Life of the Mine
6.2.4	Date of expiry of earlier Mining Lease, if any	Not Applicable
6.2.5	Whether the lease boundary/required boundary is same as mentioned in the allotment order	No
6.2.6	Lease Area (applied/	Block Area

	Parameters	Details	
	required) as per the Mining Plan under consideration (Ha)	West & East	3943.76
		NW	485.16
		Outside Block Area	
		West & East	266.08
		NW	0.00
		Project Area	
		West & East	4209.84
		NW	485.16
		Total	4695
		Out of 4695 Ha EC has been accorded for NW (485.16 Ha) and West & East (3319.42 Ha). Details of EC area has been attached at Annexure – VI B.	
6.2.7	Whether the applied lease area falls within the allotted block	No, 266.08 Ha falls outside the allotted block	
6.2.8	Area (Ha) of lease which falls outside the delineated block/sub-block	266.08 Ha falls outside the allotted block	
6.2.9	Details of outside area:		
	• Whether forms part of any other coal block	No	
	• Whether it contains any coal/lignite reserves	No	
	• Purpose for which it is required, e.g. roads/ OB dumps/ service buildings/ colony/ safety zone/ others (specify)	OB Dump, Infrastructure area, Evacuation corridor and siding	
6.2.10	Whether some part(s) of the allotted block has not been applied for mining lease.	No	
	• Total area in Ha of such part(s).	NA	
	• Total reserves in such art(s) (Mt)	NA	
	• Brief reasoning for leaving such part(s)	NA	

CHAPTER – 7

ENVIRONMENTAL MANAGEMENT

	Parameters	Details
16	ENVIRONMENTAL MANANGEMENT	
a.	Commitment from the project proponent that the company will comply Environment and Forest Condition stipulated in the respective clearances	Annexure: III.

Chapter - 8

PROGRESSIVE & FINAL MINE CLOSURE PLAN

S No.	Parameter	Details
8.1	Land degradation & restoration schedule	
8.1.1	Tentative Land degradation & technical reclamation (Cumulative Area "Ha")	

Year/ Stage (Life of the mine plus post closure period)		Land Degraded (Ha)				Technically reclaimed area (Ha)			
		Exc. Area for OC	Dump (External + top soil)	Infra/st hers	Total	Backfilling	Dump (External + top soil)	Infra/st hers	Total
Up to Base Year		430	363	2495	3294	55	24	0	79
Y - 1	2023-24	563	462	2279	3294	85	50	0	135
Y - 3	2025-26	701	584	2009	3294	158	100	0	258
Y - 5	2027-28	850	699	1745	3294	245	160	0	405
Y- 10	2032-33	1004	869	1421	3294	325	220	0	545
Y- 15	2037-38	1172	910	1212	3294	370	290	0	660
Y- 20	2042-43	1203	910	1121	3294	444	360	0	804
Y- 25	2047-48	1500	885	913	3294	518	450	200	1168
Y-30	2052-53	1819	885	590	3294	592	532	310	1434
Y-35	2057-58	1867	885	542	3294	666	600	420	1686
Y-40	2062-63	1897	885	512	3294	740	700	550	1990
Y-45	2067-68	1935	885	474	3294	814	780	850	2444
Y-50	2072-73	1982	885	427	3294	958	835	1050	2843
Y-51	2073-74	1982	885	427	3294	958	885	1100	2943
Post Closure									
Y-54	2075-77	1982	885	427	3294	1294	885	1115	3294

8.1.2 Tentative Biological Reclamation (cumulative in "Ha")

Year/Stage		Biologically Reclaimed Area (Ha)					Forest land (Return)	Un-disturbed/ To be left for public/ company use	Total
		Agri-culture	Plantation	Water body	Public / Company Use	Total			
Up to Base year *		0.0	24.0		0.0	24.0	0.0	1401.0	1425.0
Y - 1	2023-24	0.0	40.0	0.0	0.0	40.0	0.0	1401.0	1441.0
Y - 3	2025-26	0.0	125.0	0.0	0.0	125.0	0.0	1401.0	1526.0
Y - 5	2027-28	0.0	186.0	12.0	0.0	198.0	0.0	1401.0	1599.0
Y-7	2030-31	0.0	255.0	12.0	0.0	267.0	0.0	1401.0	1668.0
Y - 10	2032-33	0.0	434.0	12.0	40.0	476.0	0.0	1401.0	1877.0
Y - 15	2037-38	345.0	625.0	12.0	45.0	1027.0	0.0	1401.0	2428.0
Y - 20	2042-43	470.0	735.0	12.0	62.0	1279.0	0.0	1401.0	2680.0
Y - 25	2047-48	530.0	845.0	593.0	71.0	2039.0	0.0	1401.0	3440.0
Y-30	2052-53	585.0	955.0	593.0	85.0	2218.0	0.0	1401.0	3619.0
Y-35	2057-58	665.0	1100.0	593.0	91.0	2449.0	0.0	1401.0	3850.0
Y-40	2062-63	665.0	1245.0	593.0	96.0	2599.0	0.0	1401.0	4000.0
Y-45	2067-68	713.0	1430.0	593.0	99.0	2825.0	0.0	1401.0	4226.0
Y-51	2073-74	713.0	1772.0	100.0	109.0	3294.0	0.0	1401.0	4695.0
Post-closure									
Y-54	2076-77	713.0	1772.0	700.0	109.0	3294.0	0.0	1401.0	4695.0

8.2	**Post Closure Water Quality management**	The proposed mining area is not dissecting any natural water stream. The storm water and ground water intersected during mining operations will be the source of water accumulation within the mining pit. Accumulated mine pit water during the active mining period will be pumped while post mining operation, there will be accumulated water in the left out voids. An area of about 688 ha of land will be converted to waterbody at the end of mine life. This area cannot be backfilled, however will technically reclaimed by

		converting into water body. In post closure phase, Routine Environmental Monitoring (REM) of the water accumulated shall be fortnightly sampled and analyzed to monitor development of acidity or toxicity in the water at least for 3 years. As post mine period, most of the broken areas will be backfilled and left out water bodies will be much less, development of toxic water is not anticipated. The pH of the accumulated water is thus expected to be within a narrow range near the neutral value. The accumulated water will be utilized for the local community for agriculture and other uses. Regular monitoring of the water quality will be carried out as per the CPCB norms. Once the mine is closed, outside water shall be prevented to enter into the mined out pit which in turn will reduce the TDS and other solvents. The pit water will be utilized for agricultural use, supply as drinking water after treatment and for pisciculture. As such the area falls under arid climatic horizon and this water body will add life to the area by supplying water for agriculture and drinking. Effluent Treatment Plant (ETP) and Sewerage Treatment Plant (STP) should be maintained atleast for 3-5 years. Regular monitoring of the water quality will be carried out as per the CPCB norms. Water quality analysis shall be carried out as per CPCB Water Quality Monitoring 2017guideline.
8.3	**Post Closure Air Quality management:**	The post closure activities will be restricted to limited operation only in the following areas: 1. Dismantling of temporary infrastructures. 2. Dismantling of electrical infrastructures. 3. Regular maintenance works in the dumping ground. 4. Post plantation care. 5. Maintenance of the main haul road. 6. Cleaning of suture drains and garland drains. Most of the activities does not generate continuous dust generation, except the dismantling works which

		will be restricted to the limited zones compared to the whole project area. Water sprinkling will be continued before the vehicle movement. Routine Environmental Monitoring (REM) of the air quality shall be monitored as per latest CPCB guidelines atleast for 3-5 years. Occasionally dust may be generated from the uncovered areas of the dumps. Regular sprinkling arrangements will be done till the areas are stabilised. Quarterly Air quality Monitoring will be done as per NAAQ standard (CPCB) guideline 2009)

8.4 Waste Management (Figures in MM3) (Tentative)

Year/ Stage	Year	OB Removal (Cumulative)			External Dump (Cumulative)			Internal Backfilling (Cumulative)		Embankment (Cumulative)	
		Top Soil	OB	Total	Top Soil	OB	Total	Top Soil	OB	Top Soil	OB
Up to Base year *		8.6	158.1	162.7	2.45	147.10	149.50	1.32	11.10	0.10	0.80
Y - 1	2023-24	4.5	219.7	224.1	3.10	185.10	186.20	1.30	35.80	0.10	0.80
Y - 3	2025-26	5.4	347.7	353.2	3.60	352.40	356.40	1.70	84.80	0.10	0.80
Y - 5	2027-28	6.6	505.1	522.7	4.70	559.50	564.20	2.30	165.00	0.10	0.80
Y-7	2030-31	7.1	675.3	683.1	5.20	402.50	407.50	2.20	272.50	0.10	0.80
Y - 10	2032-33	8	829.8	837.8	5.30	476.00	481.00	2.40	452.00	0.10	0.80
Y - 15	2037-38	9.4	1332.4	1341.8	4.40	580.10	584.50	2.90	762.50	0.10	0.80
Y - 20	2042-43	10.1	1747.9	1758	6.80	609.30	612.40	3.10	1141.80	0.10	0.80
Y - 25	2047-48	11.8	2125.1	2135.9	6.70	615.90	624.60	4.00	1505.40	0.10	0.80
Y-30	2052-53	14.6	2317.4	2332	9.20	621.85	631.05	5.30	1896.55	0.10	0.80
Y-35	2057-58	15.6	2375.4	2383	9.50	621.75	631.05	6.10	1752.85	0.10	0.80
Y-40	2062-63	16.7	2416.7	2438.4	9.60	621.45	631.05	7.00	1797.45	0.10	0.80
Y-45	2067-68	17.8	2469.6	2481.4	9.60	621.25	631.05	7.90	1841.35	0.10	0.80
Y-50	2072-73	18.6	2498.8	2514.7	10.00	621.60	631.05	8.70	1874.00	0.10	0.80
Y-51	2073-74	19.06	2517.04	2537.01	10.18	620.87	631.05	9.70	1886.37	0.10	0.80
Post closure											
Y-54	2076-77	19.06	2517.04	2537.01	10.18	620.87	631.05	9.70	1886.37	0.10	0.80

8.5 Top Soil Management– (Including Action plan for Top Soil management) (Tentative)

Year/Stage	Year	Top Soil Removal Plan	Top Soil Used				
			Spreading over Enibankinent	Spreading over Backfill Area	Spreading over External OB Dump area	Used in Green Belt area	Total Utilised
Up to Base year *		3.5	0.1	0.0	2.4	0.5	3.0
Y-1	2023-24	4.5	0.1	0.4	2.5	0.5	3.5
Y-3	2025-26	5.6	0.1	0.8	3.1	0.5	4.5
Y-5	2027-28	6.8	0.1	1.5	3.8	0.5	5.9
Y-7	2030-31	7.3	0.1	2.3	4.2	0.5	7.1
Y-10	2032-33	8.0	0.1	2.5	4.6	0.5	7.7
Y-15	2037-38	9.4	0.1	3.0	5.8	0.5	9.4
Y-20	2042-43	10.1	0.1	3.2	6.3	0.5	10.1
Y-25	2047-48	12.8	0.1	4.0	7.6	1.0	12.8
Y-30	2052-53	14.6	0.1	5.5	8.0	1.0	14.6
Y-35	2057-58	15.6	0.1	6.2	8.3	1.0	15.60
Y-40	2062-63	16.7	0.1	7.0	8.6	1.0	16.70
Y-45	2067-68	17.8	0.1	7.9	8.8	1.0	17.80
Y-50	2072-73	18.8	0.1	8.7	9.0	1.0	18.80
Y-51	2073-74	19.98	0.1	9.7	9.18	1.0	19.98
Post-closure							
Y-54	2076-77	19.98	0.1	9.7	9.18	1.0	19.98

Top Soil Summary (M cum):

West & East Quarry	NW Quarry	Total
14.176	5.8053	19.9813

8.6	**Management of Coal Rejects.**	Since the project does not envisaged any washery, generation of rejects are not associated.
8.7	**Restoration of Land used for Infrastructure**	Survey for 3 monsoon seasons should be done then carry out compaction of the land before any infrastructure to be built over it. All infrastructures will be dismantled excluding the office and Vocational Training center which will be handed over to the state government.

8.8	**Disposal of Mining Machinery**	Mining machineries are to be deployed by Contracting agency. They will be taking out the machineries at the end of mine life and will utilize in their other projects. Scrapped machineries will be auctioned to the authorized agencies.
8.9	**Safety & Security**	Thorough inspection of the mine and OB dump areas for assessing the left-over closure jobs of already reclaimed internal dump areas. • Inspection of infrastructure and water body area for their safe reclamation and abatement of any leftover dangers. • Action required making drainage and any fire areas safe for future period. • Making 2 meter high fencing wall against excavated void are to prevent inadvertent entry as per requirement (As per DGMS standard). • Making safe approach road from surface to left out pit bottom for future uses, as void becomes a water body. • Completing the survey of total reclaimed areas like mined areas, internal dump, mine faces, quarry fencing and other areas to complete and update the Mine plans under Coal mine Regulation
8.10	**Abandonment Cost and Financial Assurance**	
8.10.1	**Abandonment Cost: Cost of Activities to be taken up for closure of the mine**	

Head	Activities	Units	Quantity	Rate Rs Lakh/unit	Total Amt. Rs. Lakh
Progressive Closure	Water Quality Management	LS			800.00
	Air Quality Management	LS			800.00
	Waste management	Mcum			

		Barbed Wire Fencing Around Dump	m			
		Barbed Wire Fencing Around Pit	m	80000	0.02	1600.00
		Filling up Voids and Rehandlig of Dumps	MM3			
		Top Soil Management	MM3	19.09	430	8591.40
		Technical and Biological Reclamation of Mined out land & Dump	Ha	4695	3	14085.00
		Plantation over virgin area including green belt	Ha	1772	1.2	2126.40
		Manpower Cost and Supervision	Ls			3000.00
		Toe wall around dump	m	76923	0.065	5000.00
		Garland Drain	m	192308	0.0055	1058.00
		Garland drain around dump	m	56000	0.0055	308.00
		Subsidence monitoring	Ls			
		Massonary/ Concrete Wall	m			5000.00
		Other Activities	LS			15000.00
	Dismantling of Infrastructures & Disposal/ Rehabilitation of Mining Machinary	Dismatling of Workshop	LS			2500
		Rehabilitation of dismentled facilities	LS			800
		Dismantling of Pumps, Pipes/other facilities	LS			1200
		Dismantling Sand stowing Bunker/ Inlets,Provisioning of Pumps for borewell pumping Arrangement				
		Dismantling of UG Equipment				
		Rearranging water pipeline to dump top park/ Agricultural land	LS			2300
		Dismatling of Powerline & Electricals	Ls			1600
		Dismantling of CHP	LS			2000
	Safety & Security	Barbed wire fencing around dump	Ls	30000	0.02	600
		Barbed wire fencing around the Pit	m	25000	0.02	500
		Barbed wire fencing with masonary pillars	LS			3800
		Concrete wall with Masonary	Ls			4300

		pillars around the pit				
		Securing shaft/ Fan Drift and installation of borewell pump	LS			
		Securing of Incline	Ls			
		Concrete wall fencing around the water body	M	5000	0.065	3250
		Boundary wall around the water body	LS			4500
		Stabilisation(viz benching, pitching etc) of side walls of the water body	Ls			8500
		Toe Wall around the dump	LS			1000
		Garland drain	Ls			
		Garland Drain around Dump	Ls			7000
		Drainage Channel from main OB dump	LS			1500
		Underground Isolation Stopping	Ls			18500
	Technical and Biological Reclamation of Mined out of land and OB Dump	Filling of Void	Ha			
		Top Soil management	LS			2200
		OB Rehandling for backfilling				
		Terracing, blanketing with soil and vegetation of External OB Dump	LS			1250
		Peripheral road, gates, view point, cemented steps on bank of Water body	LS			1500
		Expenditure on development of Agricultural land	LS			1200
		Landscaping and Plantation	Ha	4695	3	14085
		Rehandling of crown dump				
	Post Closure management and supervision	Power Cost	LS			2700
		Post Mining Water quality management	LS			2000
		Post Mining Air quality management	LS			2000
		Subsidence monitoring for 5 years	LS			
		Waste Management	LS			1000
		Manpower Cost and supervision	LS			1200

784

	Others	Enterpreneurship development (vocational/skill development training for sustainable income of affected people	LS			800
		Golden Handshake / Retrenchment benefits to 100 employees of OC	LS			300
		Golden Handshake / Retrenchment benefits to 200 employees of UG				
		Onetime financial grant to societies / institutions /organisations which is dependent upon the project	LS			300
		Provide jobs in other mines of the company				
		Continuation of other services like running of schools etc				1000
	Total					**152853.795**

8.10.2	**Financial Assurance: Amount to be deposited in Escrow account as a security against the mine activities to be carried out for the closure of the mine**

ESCROW AMOUNT	
Mine Closure Cost Calculation for PB OC Project	
Project name	**Pakri Barwadih**
Project Area (ha)	3588.04
Escrow Amount per Ha. For OC Project as on April, 2019 (lakhs/ Ha)	9
WPI as on April 2019	121.1
WPI as on August 2023	151.9
Escrow Amount per Ha. For OC Project as on August 2023 (lakhs/ Ha)	11.29
Current value of corpus as on August 2023 (Rs lakhs)	40505.45
Amount deposited (including interest) till date (Rs lakhs)	5220.09
Balance Corpus for which provision is to be made (Rs lakhs)	35285.36
Balance Life of mine (in years)	51
Annual corpus (Balance corpus / Balance life, in Rs. Lakh)	691.87

Amount to be deposited in Escrow Account annually, Rs. Lakh

Year	Fin. Year	OC (In Lakh)	UG	Total (In Lakh)
Y-1	2023 - 24	691.87		691.87
Y-2	2024 - 25	726.46		726.46
Y-3	2025 - 26	762.79		762.79
Y-4	2026 - 27	800.93		800.93
Y-5	2027 - 28	840.97		840.97
Y-6	2028 - 29	883.02		883.02
Y-7	2029 - 30	927.17		927.17
Y-8	2030 - 31	973.53		973.53
Y-9	2031 - 32	1022.21		1022.21
Y-10	2032 - 33	1073.32		1073.32
Y-11	2033 - 34	1126.98		1126.98
Y-12	2034 - 35	1183.33		1183.33
Y-13	2035 - 36	1242.50		1242.50
Y-14	2036 - 37	1304.62		1304.62
Y-15	2037 - 38	1369.85		1369.85
Y-16	2038 - 39	1438.35		1438.35
Y-17	2039 - 40	1510.26		1510.26
Y-18	2040 - 41	1585.78		1585.78
Y-19	2041 - 42	1665.07		1665.07
Y-20	2042 - 43	1748.32		1748.32

Y-21	2043 - 44	1835.74		1835.74
Y-22	2044 - 45	1927.52		1927.52
Y-23	2045 - 46	2023.90		2023.90
Y-24	2046 - 47	2125.09		2125.09
Y-25	2047 - 48	2231.35		2231.35
Y-26	2048 - 49	2342.92		2342.92
Y-27	2049 - 50	2460.06		2460.06
Y-28	2050 - 51	2583.07		2583.07
Y-29	2051 - 52	2712.22		2712.22
Y-30	2052 - 53	2847.83		2847.83
Y-31	2053 - 54	2990.22		2990.22
Y-32	2054 - 55	3139.73		3139.73
Y-33	2055 - 56	3296.72		3296.72
Y-34	2056 - 57	3461.55		3461.55
Y-35	2057 - 58	3634.63		3634.63
Y-36	2058 - 59	3816.36		3816.36
Y-37	2059 - 60	4007.18		4007.18
Y-38	2060 - 61	4207.54		4207.54
Y-39	2061 - 62	4417.92		4417.92
Y-40	2062 - 63	4638.81		4638.81
Y-41	2063 - 64	4870.75		4870.75
Y-42	2064 - 65	5114.29		5114.29
Y-43	2065 - 66	5370.01		5370.01
Y-44	2066 - 67	5638.51		5638.51
Y-45	2067 - 68	5920.43		5920.43
Y-46	2068 - 69	6216.45		6216.45

Y-47	2069 - 70	6527.28		6527.28
Y-48	2070 - 71	6853.64		6853.64
Y-49	2071 - 72	7196.32		7196.32
Y-50	2072 - 73	7556.14		7556.14
Y-51	2073 - 74	7933.95		7933.95
Total		**152775.49**		**152775.49**

Annexure - F

DETAILS OF OPERATION AND MAINTENANCE EXPENSES CLAIMED

Name of the Petitioner: NTPC Ltd.

Name of the Integrated Mine: Pakri Barwadih

(Amount in Rs.)

Sl. No.	Heads	2019-20	2020-21	2021-22	2022-23	2023-24
1	Consumption of stores & spares		3,070.14	8,701,738.00	2,68,876.00	212.00
2	Repair & Maintenance	5,49,53,240.14	6,17,61,775.00	14,59,45,050.53	11,39,067.63	47,52,77,696.00
3	Insurance	7,06,378.00	11,07,087.50	37,99,843.00	70,88,983.75	8,07,18,619.00
4	Security	17,77,24,958.00	23,15,42,889.37	28,83,29,443.00	34,23,31,021.81	37,43,80,604.00
5	Administrative Expenses:					
5.1	Rent	30,05,930.00	41,90,825.00	51,08,100.00	53,81,157.00	59,73,941.00
5.2	Electricity charges	3,06,17,810.00	3,71,09,425.00	3,90,93,675.00	4,90,29,420.00	54,87,47,219.00
5.3	Travel expenses	8,93,66,191.70	1,02,19,532.42	1,07,88,600.00	1,02,98,544.00	2,27,90,571.00
5.4	Communication expenses	1,17,19,838.00	90,05,102.00	96,29,807.00	99,30,021.67	1,17,84,641.00
5.5	Advertisement and publicity	82,20,536.00	42,83,697.00	1,14,30,800.00	1,08,85,210.00	1,27,62,749.00
5.6	Commission	56,19,305.00	47,93,180.67	40,08,744.00	57,80,811.00	60,78,330.00
	Sub-total (Administrative Expenses)	5,95,99,910.42	6,92,25,360.00	5,18,56,400.00	10,07,67,939.67	21,75,05,431.00
6.0	Employee Cost					
6.1.1	Salaries, Wages & Allowances	21,83,80,845.21	22,71,54,843.00	16,42,80,278.00	15,11,97,678.00	62,84,67,894.00
6.1.2	Bonus	1,04,62,859.00	1,40,91,444.00	1,39,11,814.00	1,60,86,060.00	80,15,446.00
6.1.3	Gratuity	57,53,951.00	63,19,067.00	69,81,338.00	75,26,039.00	183,87,311.00
6.1.4	Provident Fund	2,81,19,670.00	2,96,34,356.00	3,63,79,254.00	3,15,23,764.00	1,34,39,949.00
6.1.5	Leave Encashment	3,01,80,402.00	2,30,83,536.00	2,80,00,043.00	2,03,31,442.00	3,57,13,951.00
6.1.6	Medical and Leave	9,63,34,089.00	8,36,89,703.00	10,38,41,610.00	8,97,86,813.00	8,73,13,026.00
6.2	Staff welfare expenses:					
6.2.1	Water & expenses	2,73,71,083.00	2,91,87,800.00	3,70,95,283.00	3,02,88,455.00	3,68,67,665.00
6.2.2	Uniforms, tools & safety equipment	1,41,07,000.00	49,31,250.00	1,85,95,000.00	1,50,65,000.00	1,66,76,000.00
6.2.3	Canteen expenses	7,94,39,916.94	7,71,78,452.00	7,80,24,000.00	8,11,55,426.00	9,33,94,810.00
6.2.4	Other staff welfare expenses	1,06,71,700.00	78,33,553.83	83,11,085.00	1,47,28,328.00	1,22,92,801.00
	Sub-total (Staff welfare Expenses)	7,86,87,723.00	5,98,42,235.00	8,73,80,304.00	10,11,28,900.00	26,89,80,176.00
7.1	Less: Employee cost capitalized / to Dev. of Mining	11,80,47,5,17.70	11,91,71,91.34	-1,16,08,026.70	1,00,54,311.00	12,26,30,1.00
7.2	Less: Exps. for employees on secondment	3,49,0.4	9,1,836.00	4,16,733.00	10,27,893.00	3,7,37,833.00
	Sub Total (Employee Cost)	91,77,40,399.78	90,11,71,741.84	61,77,08,571.00	51,84,68,802.00	71,31,56,418.00
8	Depreciation	30,44,34,40,1.87		4,91,948.00		81,7,01.00
9	Expenses for Office corporate functions	11,41,21,11,7.69	10,66,39,906.41	84,41,02,440.31	51,30,61,256.23	63,81,39,101.19
10	Others					
10.1	Rates & Taxes	3,81,14,802.00	5,01,13,878.00	3,07,91,002.00	2,08,98,706.00	3,49,35,87.00
10.2	Training & recruitment expenses	81,37,661.24	1,51,360.00	3,01,500.00	36,70,876.00	58,50,40.00
10.3	Contractual manpower	3,01,62,87,1.54	62,16,760.00	30,43,602.00	37,84,711.00	10,50,81.00
10.4	Miscellaneous Charges	23,95,79,6,36.21	1,11,11,1,27.47	7,30,00,118.00	9,71,92,750.75	6,94,38,076.00
10.5	Legal Charges	60,55,986.00	1,55,58,671.00	1,10,86,792.00	5,80,56,712.00	4,56,30,00.00
10.6	CISF Fees & other charges	38,38,606.00	10,84,885.00	37,43,804.00	39,53,057.00	3,20,93,0.00
10.7	Printing & Stationery	11,71,348.00	11,95,076.70	8,26,643.00	11,82,426.00	39,34,47.00
10.8	Hiring of vehicles	1,01,27,000.00	9,61,39,592.24	2,30,88,550.00	5,00,80,164.00	3057.11,1,85,0.00
10.9	Miscellaneous	16,70,746.00	73,14,714.00	9,79,521.00	11,31,870.00	93,33,616.00
10.10	Less: Amount of Operating cost Contributions/ Recoveries	1,01,87,731.00	2,99,20,826.00	1,41,91,815.00	2,17,28,109.00	2,93,1,1,0.00
10.11	Land lease cost					
10.12	Project Expenses	2,99,1,00.00	72,0,0.00			80,7,7.00
10.13	Fly Ash Utilization			1,10,51,468.00	2,76,40,350.00	19,70,971.00
10.14	Misc. expenses	71,78,508.00	69,01,111.00	1,00,01,019.00	91,87,7.00	1,60,1,6.00

Sl. No.	Notes	2010-20	2020-21	2021-22	2022-23	2023-24
	[illegible]					
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]		[illegible]		
[illegible]	[illegible]			[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]					
[illegible]	[illegible]					
[illegible]	[illegible]					[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

SAILABALA
DHAL
(Signature Seal of Auditor)
Sailabala Dhal, Partner
M No - 23659
S Dhal & Co
Cost Accountants
UDIN - [illegible]

[illegible]
Shri Ram Sailabala Dhal
Chartered Accountants
[illegible]
Head (Finance)
[illegible]

[illegible] PAWAN DEV JAMTA
[illegible]
[illegible]
[illegible]
[illegible]

Auditor Certified Annual Charge of Agency(ies) Other Than MDO

Name of the Petitioner: NTPC Ltd

Name of the Integrated Mines: Pakri Barwadih

Year	Agency Name	PO Description	Amount in Rs.
2019-20	VPR MINING INFRASTRUCTURE PVT LTD	Hiring of HEMM coal excavation and trans	2,15,98,397.57
2019-20	Central Institute of Mining & Fuel Research	Coal Sampling by CIMFR, Dhanbad	1,41,27,046.00
2019-20	NKAS SERVICES PVT. LTD.	Hiring of Mobile Crusher, Pay Loader etc	1,21,82,793.40
2019-20	Central Institute of Mining & Fuel Research	Wagon Top Coal Sampling by CIMFR Dhanbad	3,61,07,031.00
		Total	8,70,15,267.07
2020-21	Central Institute of Mining & Fuel Research	coal sampling at BNDG by CIMFR	5,00,74,172.00
2020-21	Central Institute of Mining & Fuel Research	Analytical Charges of Coal Samples	1,11,752.00
2020-21	VPR MINING INFRASTRUCTURE PVT LTD	Hiring of HEMM coal excavation and trans	4,962.33
2020-21	NKAS SERVICES PVT. LTD.	Hiring of Mobile Crusher, Pay Loader etc	-2,451.40
2020-21	Central Institute of Mining & Fuel Research	coal sampling at BNDG by CIMFR	4,68,70,806.00
		Total	9,70,59,840.93
2021-22	Central Institute of Mining & Fuel Research	coal sampling at BNDG by CIMFR	12,02,97,697.00
2021-22	Central Institute of Mining & Fuel Research	Analytical Charges of Coal Samples	1,08,147.00
2021-22	Central Institute of Mining & Fuel Research	Coal Sampling & Analysis by M/s CIMFR	2,45,49,092.49
		Total	14,49,55,096.49
2022-23	Central Institute of Mining & Fuel Research	Analytical Charges of Coal Samples	2,33,109.00
2022-23	Central Institute of Mining & Fuel Research	Coal Sampling & Analysis by M/s CIMFR	13,01,08,663.17
		Total	
			13,03,41,368.17
2023-24	Central Institute of Mining & Fuel Research	Analytical Charges of Coal Samples	64,640.00
2023-24	Central Institute of Mining & Fuel Research	Coal Sampling & Analysis by M/s CIMFR	10,90,108.34
2023-24	Central Institute of Mining & Fuel Research	Coal Sampling & Analysis by M/s CIMFR	11,37,66,214.20
2023-24	DOTECNA INSPECTION INDIA PVT LTD	Coal Sampling and Preparation	41,79,634.31
2023-24	THE DIRECTOR CIMFR DHANBAD	Analytical Charges of Coal Samples	24,35,284.00
2023-24	QUALITY AUSTRIA CENTRAL ASIA PVTLTD	Coal Sampling & Analysis by M/s QACA Pvt	1,45,91,317.68
		Total	13,61,47,399.62

PAWAN DEV JAMTA

(Sign and Seal of Auditor of Province)
Gaurav Rastogi
AGM (Finance)
NTPC Limited / NBC Coal Mining Cluster

SAILABALA
DHAL
(Sign and Seal of Auditor)
Sailabala Dhal, Partner
M No - 22835
S Dhal & Co
Cost Accountants
UDIN - [illegible]

Annexure -G

Details of Applicable Statutory Charges

FORM-IV

Name of the Publication: NTPC Ltd.

Name of the Integrated Mine: Pakri Barwadih

Particulars	Applicable Rate	Quantity	Amount (2075-76)	Amount (2076-77)	Amount (2077-78)	Amount (2078-79)	Amount (2079-80)
Royalty	As per GO, Govt.	14%	154.96	160.17	161.00	160.36	151.22
GST under Reverse Charge Mechanism	% of Royalty	18%	28.51	28.83	28.98	28.86	30.04
District Mineral Foundation (DMF)	% of Royalty	30%	47.89	48.05	48.30	48.11	45.37
GST under Reverse Charge Mechanism	% of DMF	18%	8.62	8.65	8.69	8.65	9.01
National Mineral Exploration Trust (NMET)	% of Royalty	2%	3.19	3.21	3.22	3.21	3.02
GST under Reverse Charge Mechanism	% NMET	18%	0.57	0.58	0.58	0.58	0.63
Administration Fee	Rs per tonne		1.00	1.00	1.00	1.00	1.00
GST under Reverse Charge Mechanism	Rs per tonne	18%	0.18	0.18	0.18	0.18	0.18
COVID-19 CESS (wef 08.07.20)	Rs per tonne	10.00		4.51	10.00	10.00	10.00
GST under Reverse Charge Mechanism	% of CESS (wef 1.9.)	18%		1.62	1.80	1.80	1.80
Clean Tax (wef 01.10.17)*	Rs per tonne	87.70		29.00	87.00	22.00	22.00
GST under Reverse Charge Mechanism	% of Cleam Tax	18%		5.22	5.22	5.22	5.22
Compensation Cess** (inclusive of GST)	Govt. Fees Facility - for Each wagon				28.28	5.00	
GST Compensation Tax	Rs per tonne	400.00	400.00	400.00	400.00	400.00	400.00
GST on MDO price	% of Mining Charges	18%	139.80	142.71	153.12	159.50	159.20
GST after adjusting Input Tax Credit	% of Total Taxable Value of Goods	5%	-61.21	-64.84	-66.97	-69.63	-69.13
GST on Transportation Charges	5% on transportation and 18% on loading & unloading		31.22	29.43	29.79	27.91	31.91
Total			932.50	970.39	984.00	967.74	884.86

* Clean tax revised 80% of Rs 87 wef 10.04.2022

** 16% of compensable wage has stayed by Honble High Court w.e.f. June 18

ओम् प्रकाश/PAWAN DEV JAMTA
Chief - Corporate Management (Coal Division)
NTPC-SAIL Power Company (P) Ltd.
Block-A, Sector-24, Noida-201301 (U.P.)

VIKASWALA
Chief
Rajiv and Mukul Kumar
Statutory Chief, Partner
M No.- 224620
S Chak & Co
Chief Accountants
UDIN - 24224620BKCJ3H1547

Annexure - H

Year-wise Statement of Additional Capitalisation after date of Commercial operation on [illegible]

Name of the Petitioner: NTPC Ltd.
Name of the Generating Plant: Tehri Hydro
Date: [illegible]

Financial Year 2015-16

Amount in Rs Lakhs

S.No.	Head of Work / Equipment	ACT Claimed (Actual)					
		Accrual basis	Inst AB Adj	Accrual basis as per IGAAP	On-discharged Liability included in column 3	Cash basis	IDC included in col. 4
1	2	3	3A	3B = 3+3A	4	5 = 3B + 4	6
1	Land	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-
2	Buildings & Structures	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
3	Substation	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
4	Mine Development expenditure: Construction of Roads & Drains	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
5	Mine Development expenditure: Construction of Road Infrastructure	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
6	Procurement of Fire Tender	[illegible]		[illegible]	[illegible]	[illegible]	-
7	Adjustment of Mine Development Expenses	[illegible]		[illegible]	-	[illegible]	-
8	Water Supply, Drainage and Sewerage	[illegible]		[illegible]	[illegible]	[illegible]	
9	Supply and Installation of Weigh Bridge	[illegible]		[illegible]	[illegible]	[illegible]	-

Year-wise Statement of capitalised & unallocated other items of Corporate Expenditure on Enhancing Coal Output Capacity

Name of the Company: NLCIL(A)
Name of the Project with Village: Talabira Pit-II, Odisha
CMD: 31.12.2019

Financial Year 2019-20

Amount in Rs. Crore

S. No.	Head of Work / Equipment	Actual Basis	Add: Adj.	Actual basis as per Sch. 2	Un-discharged Liability included in column 2	Cash basis	Difference included in col. 2
1	2	3	3.1	3E = (+) 3.1	4	5 = 3E - 4	6
(i)	Electrical Installation Works	2.31		2.31	-	2.31	-
(ii)	Others						
(iii)	Furniture and Fixtures	165.56		165.56	-	165.56	-
(iv)	Office Equipments other than Computers	22.06		22.06	0.18	21.88	-
(v)	Security Equipment	0.64		0.64	-	0.64	-
(vi)	UPS, WP machines & SITCOM equipment & Communication Equipments	67.21		67.21	0.49	72.27	-
(vii)	Computers and Software	32.32		32.32	-	32.32	-
(viii)	Laboratory equipments	2.44		2.44	0.11	2.33	-
	Main Civil	212.08		212.08	7.42	204.66	-
	Total	66,980.74	36,472.20	93,452.94	63,429.82	29,893.04	4,211.08
12	Liability Discharge	71,141.16		71,141.16	-	71,141.16	
	Grand Total	76,980.94	36,472.20	1,06,452.10	63,429.82	44,933.10	4,211.08

(Sign and Seal of Head of Finance)
Gaurav Rastogi
Dy. General Manager (Fin)
NLCIL (Finance)
Mobile: 9999xx1234 (for all these term)
NTPC Limited / NLC (Coal Mines), Talabira

SAILABALA DHAL
(Sign and Seal of Auditor)
Sailabala Dhal, Partner
M.No - 231535
S.Dhal & Co
Cost Accountants
Mobile: 9938044233 / 0172-2747

PAWAN DEV MITTA
Dy. Accounts Officer (Coal)
Dte. General Manager (Coal Mines)
E-1, 2nd Floor, NTPC / NLC (A Joint Venture)
Block-A-64, Sector-24, Noida-201301 (U.P.)

[illegible]

Name of the Scheme: NTPC Ltd.
Name of the Integrated Unit: Palla Darwadih
Unit [illegible]

Financial Year 2020-21

Amount in Rs Crore

S.No.	Head of Work / Equipment	ACE Current (Actual)					
		Accrual basis	Ind AS Adj.	Accrual basis as per IGAAP	Undischarged Liability included in column 2	Cash basis	IDC included in col. 3
1	2	3	3A	3B = 3+3A	4	5 = 3 - 4	6
1	Land	25,475.86	-	25,475.86	3,448.56	22,026.30	-
2	Electrical Installation Works	20.97	-	20.97	1.77	19.18	-
3	MBOAs		-	-			
(i)	Furniture and Fixtures	162.52	-	162.52	0.40	162.12	-
(ii)	Office Equipments [illegible] Computers	115.30	-	115.30	37.54	77.66	-
(iii)	Material Equipment	1.72	-	1.72	-	1.72	-
(iv)	TOP, WP machines & SATCOM equipment & Communication Equipment	42.86	-	42.86	1.05	41.55	-
(v)	Computers and Software	65.95	-	65.95	5.85	45.06	-
(vi)	Laboratory equipment	50.23	-	50.23	0.49	9.78	-
	Sub Total	336.43	-	336.43	55.24	278.87	-
	Total of PBCMP	25,833.22	-	25,833.22	6,205.08	19,624.15	-
4	Liability Discharge	8,082.79	-	8,082.79	-	8,082.79	
	Grand Total	33,915.81	-	33,915.81	6,205.08	27,709.63	-

Ramdeva Dhal, Partner
M No - 32020
S Dhal & Co
Cost Accountants
UDIN - [illegible]

SAILABALA DHAL

Year wing Statement of Additional Capitalization after date of Commercial operation up to achieving Peak rated Capacity

Name of the Generator: [illegible]
Name of the Generator Mtg: [illegible]
Date: [illegible]

Financial Year 2021-22

Amount in Rs Lakhs

S.No.	Head of Work / Equipment	ACE Claimed (Annual)					
		Accrual basis	Bid AA adj.	Accrual basis as per BIA AP	Un-discharged Liability included in column 2	Cash basis	IDC included in col. 2
1	2	3	3A	3B = 3+3A	4	5 = 3 + 4	6
1	Land	18,591.79	-	18,591.79	10,291.34	8,217.45	-
2	Buildings & Structures	243.03	-	243.03	5.11	238.92	-
3	Substation	2,276.56	-	2,276.56	258.38	2,018.17	1,190.69
4	Other Development expenditures: Bank, Drain, Culvert, and Chevaliers	1,379.36	-	1,379.36	7.35	1,372.01	3.57
5	Other Development expenditures: Construction of Bund infrastructure	24,582.44	-	24,582.44	3,602.91	20,669.41	8,250.71

Cost wise Statement of Additional Capitalization after date of Commercial operation on or achieving Peak rated Capacity

Name of the Generator: [illegible]
Name of the Integrated Mine: [illegible]
Cable: [illegible]

Financial Year 2021-22

Amount in Rs Lakhs

S. No.	Head of Work / Equipment	ACE Claimed (Actual)					
		Accrual basis	Ind AS adj.	Accrual basis as per IG CCP	Un-discharged Liability included in column 3	Cash basis	Hire included in col. 3
1	2	3	3A	3B = 3+3A	4	5 = 3 - 4	6
6	Coal Handling Plant	78,566.42	-	78,566.42	1,042.08	68,221.36	24,011.19
7	Water Supply, Drainage and Sewerage	17.70	-	17.70	-	17.70	-
8	Supply and Installation of Weigh Bridge	95.82	-	95.82	1.18	96.18	2.16
9	Electrical Installation Works	131.60	-	131.60	2.38	133.43	-
10	Construction of Chain Link Fencing and Drop Gate at Cement Quarry	14.80	-	14.80	0.50	14.80	-
11	MBHAs		-	-			
12	Furniture and Fixtures	142.77	-	142.77	70.17	62.98	-

Text of the Statement of Additional Capitalisation after date of Commercial operation for 11 existing Peak Rated Capacity

Name of the Transmission: NTPC Ltd
Name of the Transmission Asset: Parli Maharashtra
Cost of the Asset

Financial Year 2021-22

Amount in Rs Lakhs

S. No.	Head of Work / Equipment	ACE Claimed (Actual)					
		Accrual basis	Ind AS Adj	Accrual basis as per IGAAP	Undischarged Liability included in column 3	Cash basis	Diff included in col. 3
1	2	3	3A	3B = 3+3A	4	5 (5 = 3-4)	6
(i)	Other Expenditure other than Compensation	104.20	-	104.20	7.69	96.51	-
(ii)	Housing Expenditure	80.41	-	80.41	0.32	80.71	-
(iii)	CCTV, NP monitoring & SAS OPM equipment & Communication Equipment	22.23	-	22.23	2.74	19.50	-
(iv)	Computers and Software	17.48	-	17.48	17.48	-	-
(v)	Laboratory equipment	40.99	-	40.99	0.52	40.47	-
	Sub Total	265.31	-	265.31	28.75	236.56	-
Total		1,23,516.83	-	1,23,516.83	28,679.29	1,02,837.54	40,021.14
12	Liability Discharge	24,129.77	-	24,129.77	-	24,129.77	
	Grand Total	1,47,637.60	-	1,47,637.60	28,679.29	1,26,967.31	40,021.14

(Sign and Seal of Head of Finance)
Gaurav Rastogi
[illegible]
AGM (Finance)
[illegible]
NTPC Limited (SSC Oval Mining, Rajasthan)

SAILABALA DHAL
(Sign and Seal of Auditor)
Sailabala Dhal, Partner
M No - 203036
S Dhal & Co
Chartered Accountants
UDIN: 22203036ACVEAB9436

PAWAN DEV JAMTA
[illegible]
NTPC LIMITED
[illegible]
Noida-201301 (U.P.)

Year-wise Statement of Additional Capitalisation after date of Commercial operation as on admitted Peak Rated Capacity

Name of the Generator: NTPC Ltd
Name of the Integrated Mine: Pakri Barwadih
CoD: 01.04.2019

Financial Year 2022-23

Amount in Rs Lakhs

S. No.	Head of Work / Equipment	ACE Claimed (Actual)					
		Accrual basis	Ind. AS Adj.	Accrual basis as per IGAAP	Undischarged Liability included in column 2	Cash basis	IDC included in col. 3
1	2	3.00	3.1	3B = 3+3A	3.00	(5 = 3 - 4)	4
1	Land	12,038.17	-	12,038.17	6,010.65	6,047.52	-
2	Land (Reversal of Liability)	-10,067.59	-	-10,067.59	-10,067.59	-	-
3	Buildings & Structures	338.11	-	338.11	13.89	132.29	-
4	Substation	4,232.29	-	4,232.29	88.56	4,107.73	1,374.51

पवन देव जमाता/PAWAN DEV JAMTA
उप महाप्रबंधक (सीएफ)
Dep. General Manager (Cor. Fund)
एन टी पी सी लिमिटेड/NTPC LIMITED
LOC-A-8A, Sector-24, Noida-201301 (U.P.)

Year Wise Statement of Additional Capitalization after date of Commercial operation on or subsection Pupil-eyed Capacity

Name of the Projector: NTPC Ltd
Name of the Stagnated Mine: Pakri Barwadih
LOD: 01.04.2010

Financial Year 2022-23

Amount in Rs Lakhs

S. No.	Head of Work / Equipment	Actual Funds	Ind AS Adj	Actual funds as per IGAAP	Undischarged Liability included in column 2	Cash Basis	IDC included in col. 2
		All E.I Issued / Actuals					
1	5	2.00	2A	2B = 3+2A	4.00	(5 = 3 + 4)	6
F	Mine Development Expenditure: Road, Drain, Culvert and Cherlatum	95.82	-	95.82	-	95.82	-
A	Mine Development Expenditure: Mining -Dip Side Area and Negative Pouring Borehole	4,300.73	-	4,300.73	558.03	3,860.70	3,480.51

Note for Statement of Additional Capitalization after date of Commercial operation up to achieving Peak rated Capacity

Name of the Promoter: NTPC Ltd
Name of the Integrated Mine: Pater Barrwells
Coll: 10/04/2019

Financial Year 2022-23

Amount in Rs Lakhs

S.No.	Head of Work / Equipment	ACE Claimed (Actual)					
		Accrual basis	Ind AS Adj.	Accrual basis as per IGAAP	Co-discharged Liability included in column 3	Cash basis	IDC included in col. 3
1	2	3.00	3A	3B = 3+3A	4.00	5 = 3+4	6
7	Coal Handling Plant	58,110.65	-	58,110.65	2,113.75	55,004.87	26,110.64
8	Electrical Installation Works	245.91	-	245.91	31.74	214.11	-4.00
9	MBD 5s		-	-			
(i)	Furniture and Fixtures	20.71	-	20.71	-	20.71	-
(ii)	Office Equipment other than Computers	68.48	-	68.48	9.04	59.43	-
(iii)	Hospital Equipment	11.42	-	11.42	0.20	11.22	-
(iv)	LHP, WP machines & SATCOM equipment & Communication Equipment	17.97	-	17.97	8.27	17.70	-
(v)	Computers and Software	334.40	-	334.40	8.38	326.02	9.16
(vi)	Laboratory equipment	2.50	-	2.50	-	2.50	-
	Sub Total	457.49	-	457.49	17.89	439.60	9.16
10	Heads of MBD 5s						
10	Furniture and Fixtures	-0.12	-	-0.12	-	-0.12	-

Year-wise Statement of Additional Capitalisation after date of Commercial operation (as on additional Peak rated Capacity)

Name of the Petitioner: NHPC Ltd
Name of the Integrated Mgt. Paler Barwadih
Date: 31.04.2024

Financial Year 2022-23

Amount in Rs Lakhs

S. No.	Head of Work / Equipment	ACE Claimed (Actual)					
		Accrual basis	Ind AS Adj.	Accrual basis as per IGAAP	Un-discharged Liability included in column 3	Cash basis	IDC included in col. 3
1	2	3.00	2A	3B = 3+2A	4.00	(5 = 3 - 4)	6
(iii)	Office Equipment other than Computers	-0.56	-	-0.56	-	-0.56	-
(iv)	Computers and Software	-1.88	-	-1.88	-	-1.88	-
	Sub Total	-2.00	-	-2.00	-	-2.00	-
	Total	71,573.97	-	71,573.97	-376.06	71,950.84	26,984.53
11	Liability Discharge	22,361.52	-	22,361.52	-	22,361.52	-
	Grand Total	93,935.49	-	93,935.49	-376.06	94,311.36	26,984.53

SAILABALA DHAL

Sailabala Dhal, Partner
M No.- 22635
S Dhal & Co.
Cost Accountants
UDIN: [illegible]

Gaurav Rastogi

PAWAN DEV JAUTA
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Year-wise Statement of Accretion/ Expenditure after start of Commercial operation in respective Year (coal Company)

Name of the Company: NTPC Ltd
Name of the Integrated Mine: Pakri Barwadih
Coal/ Lignite: Coal

Financial Year 2023-24

Amount in Rs. Lakhs

S.No.	Head of Work / Equipment	As per Accounting Standard (AS) 26					
		Accrual basis	Incl. AS-26 Adj.	Accrual basis as per IGAAP	Pre-discharged Liability included in column 2	Cash basis	Diff. (included in col. 4
1		2	2A	2B = 2+2A	3	(4 = 2 – 3)	5
1	Land	17,118.64	-	17,118.64	-	17,118.64	-
2	Buildings & Structures	458.00	-	479.65	12.91	466.74	-
3	Mine Development Expenditure: Road, Drain, Culvert and Chokidars	2,523.09	-	2,523.09	247.79	2,276.31	-
4	Mine Development Expenditure: Railway Siding	529.98	-	529.98	-	529.98	-
5	Mine Development Expenditure: Mining – Dip Side Area and Negative Pressing Borehole	568.24	-	568.24	350.00	218.24	-
6	Coal Handling Plant	1,652.08	-	1,652.08	441.28	1,210.80	-
7	Electrical Installation Works	240.24	-	240.24	28.47	211.77	-
8	MBOAA	-	-	-			
(i)	Furniture and Fixtures	13.90	-	13.90	-	13.90	-
(ii)	Office Equipments other than Computers	78.05	-	78.05	4.74	73.31	-
(iii)	Vehicles/ Equipments	57.99	-	57.99	1.08	56.92	-
(iv)	EDP, WP Machines & S/ETC/M equipment & Communication Equipment	19.53	-	19.53	5.29	14.24	-
(v)	Computers and Software	82.87	-	82.87	10.25	72.62	-
(vi)	Computer equipment	105.11	-	105.11	3.34	101.77	-
	Sub Total	372.74	-	372.74	19.69	353.05	-
	Subsidence Issued to Mine Closure Funds	9,168.47	-	9,168.47	9,168.47	-	-

Chief Manager (Coal Accounts)
PKR & BRD / NTPC Limited
Sector-24, Noida-201301

Amount in Rs. Lakhs

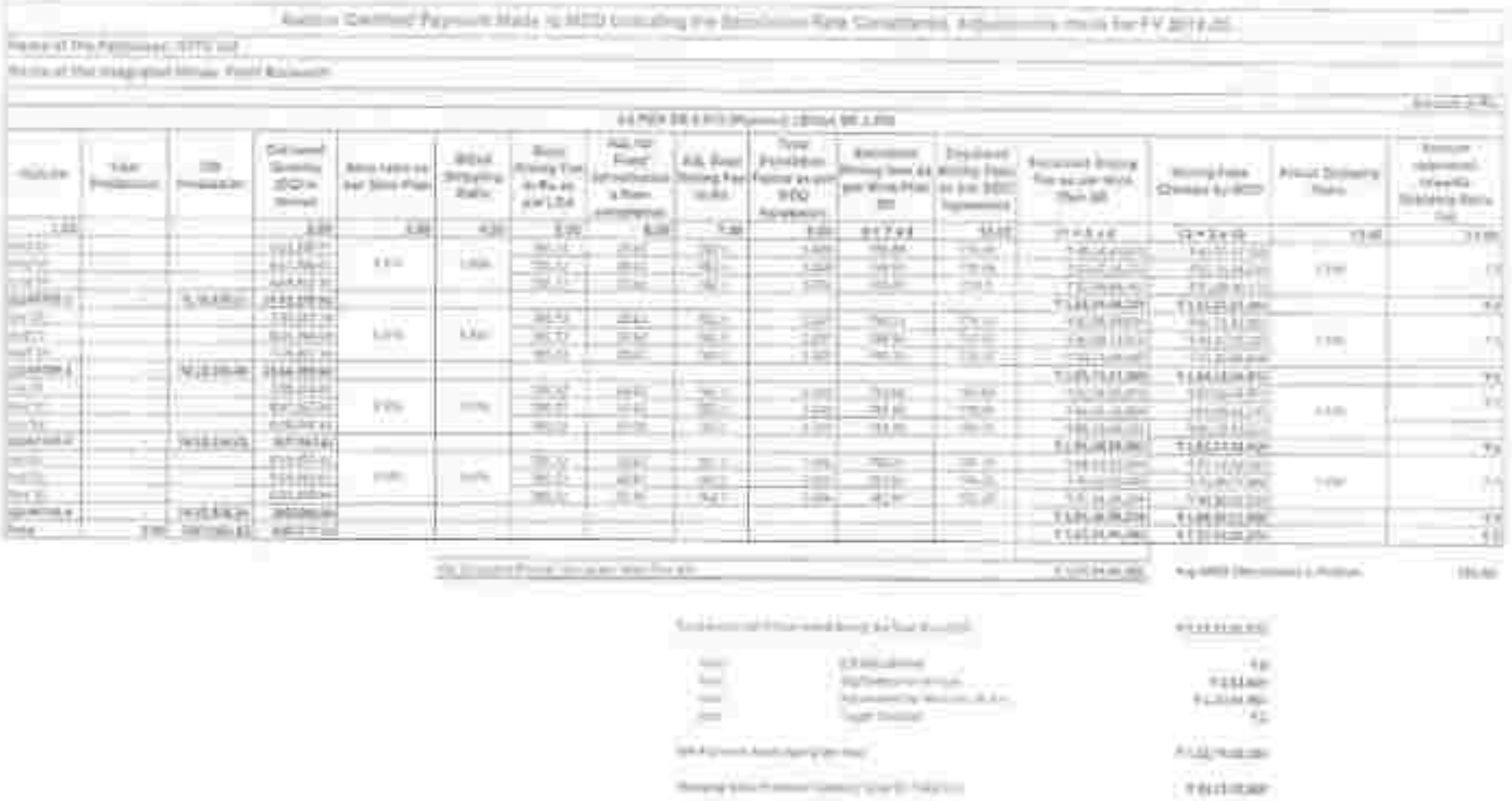
S. No.	Head of Work / Equipment	AS & Claimed / Actuals					
		Actual basis	Bal AS Adj.	Actual basis as per IGAAP	Pre-discharged Liability included in column 2	Cash basis	IDC included in col. 2
1		2	2A	2B = 2+2A	4	(5 = 2 - 4)	6
10	Allocation Award to M/s Thana Mana	0.000.00	-	0.000.00	-	0.000.00	
11	Bonus of MBOAs						
11	Furniture and Fixtures	-13.88	-	-13.88	-	-13.88	-
[illegible]	Office Equipments other than Computers	-51.06	-	-51.06	-	-51.06	-
[illegible]	FIFE, W Franchises & SATCOM equipment & Communication Equipment	-27.82	-	-27.82	-	-27.82	-
[illegible]	Computers and Software	-186.65	-	-186.65	-	-186.65	-
	Sub Total	-279.41	-	-279.41	-	-279.41	-
	Total	42,374.60	-	42,374.60	18,141.73	22,332.87	-
12	Discharge of liability	14,953.37		14,953.37		14,953.37	
	Grand Total	57,327.97	-	57,327.97	18,141.73	47,186.24	

(Sign and Seal of Head of Finance)
गौरव रस्तोगी
Gaurav Rastogi
सहा. महाप्रबंधक (वित्त)
AGM (Finance)
[illegible]

SAILABALA DHAL
(Signature of Auditor)
Sailabala Dhal, Partner
M No - 22830
S Dhal & Co
Cost Accountants
UDIN: [illegible]

पवन देव जाणता/PAWAN DEV JAMTA
वरिष्ठ महाप्रबंधक (वित्तीय)
Dep. General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
DOC-A-84, Sector-24, Noida-201301

Annexure - I



Name of the Company (M/s) Coal
Mine wise Weighted Mine, Pithead

Calculation of Weighted Avg. Mining Rate - 01.04.2014 to 31.03.2015 as per Standard Schedule Rate 2014

Auditor Certified Payment Made to SECI (including the Escalation Rate Considered) Agreements made for FY 2020-21

Name of the Purchaser: SECI Ltd.

Name of the Integrated Green Pakh Ramakrishi

(Amount in Rs.)

Agency	Cost Assessment	EE Proposed	Delivered Quantity (GA) in (MWh)	Slow rates as per Slow Plan	Billed Shipping Rates	Slow Mining Fee in Rs as on (1)(a)	Adj. for Fixed Infrastructure as Slow completion	Adj. Slow Mining Fee in Rs	Total Escalation Factor as per IEDD Agreement	Exemption Mining Fees in per Slow Plan SR	Escalation Mining Fees as per IEDD Agreement	Escalation Mining Fee as per Slow Plan SR	Mining Year Claimed for IEDD	Actual Shipping Rates	Amount claimed as Mining Rate Adj.
1 (a)			2 (b)	3 (c)	4 (d)	5 (e)	6 (f)	7 (g)	8 (h)	9 = 7 x 8	10 (i)	11 = 9 x 10	12 = 5 x 10	13 (k)	14 (l)

Consolidated all Insightful Ltd. Activity from 01.04.2024 to 30.09.2024 as per Insolvency Code Rule 3.2.5

Auditor Certified Payment Sheet to MOU including the Escalation Rate transaction & Adjustments wrote for FY 2021-22

Name of the Petroleum / PNG Co.

Name of the Integrated Mines Mine Executive

Amount in Rs.

As Per MOU Clause (Annex) / Sheet Ref. No.

MOU Year	Gas Production	Oil Production	Delivered Quantity DQ in tonnes	Bring Units as per Mine Plan	Mines Designing Basis	Base Mining Fee in Rs as per Cl.2a	Adj. for Power Infrastructure (as per conditions a	Adj. Base Mining Fee in Rs	Total Escalation Factor as per MOU Agreement	Escalated Mining Fees as per Mine Plan Rs	Escalated Mining Fees as per MOU Agreement	Discovered Mining Fee as per Mine Plan Rs	Mining Fees Claimed as MOU	Explorations, Mapping, Right, Software data, Quarter Allowance (Rs in)	Amount to be considered including GST
1.00			2.00	3.00	4.00	5.00	6.00	7.00	8.00	9 = 7 x 8	10.00	11 = 2 x 9	12 = 2 x 10	13.00	14.00

Name of the Petitioner: NTPC Ltd

Name of the Integrated Mine: Pakri Barwadih

Calculation of Weighted avg. Mining Fees - 01.04.2021 to 31.03.2022 as per Stipulated Strip Ratio 3.973

All For the Period		01.04.2021 - 30.04.2021	01.05.2021 - 31.05.2021	01.06.2021 - 30.06.2021	01.07.2021 - 31.07.2021	01.08.2021 - 31.08.2021	01.09.2021 - 30.09.2021
Quantity- as per jointly signed dispatched report in MT		7,78,777.58	7,38,132.14	5,63,940.98	4,66,270.39	6,06,216.98	6,33,807.14
Calculation of Mining Fees after adjustment of Strip ratio							
Base strip ratio	(Rbs)	3.973	3.973	3.973	3.973	3.973	3.973
Strip ratio as per approved approved plan	(Rp)	3.973	3.973	3.973	3.973	3.973	3.973
Strip ratio Factor (0.5+C.S*(1+5/(1+R))/(1+Rbs))		1.000	1.000	1.000	1.000	1.000	1.000
Base mining Fee	MF	763.30	763.30	763.30	763.30	763.30	763.30
Weighted Average Escalated Mining Fees (Annex-3)	MF/ton	857.34	934.33	850.45	857.62	857.62	857.37
Component wise weightage for escalation factor calculation	Original Weight						
F = Fixed	0.20	0.20	0.20	0.20	0.20	0.20	0.20
e = Other Items	0.09	0.0920	0.0920	0.0920	0.0920	0.0920	0.0920
t = Tyres	0.04	0.0551	0.0551	0.0551	0.0551	0.0551	0.0551
l = Heavy Machinery & Vehicle	0.17	0.1705	0.1705	0.1705	0.1705	0.1705	0.1705
d = Fuel	0.11	0.1077	0.1077	0.1077	0.1077	0.1077	0.1077
e = Explosive	0.06	0.0564	0.0564	0.0564	0.0564	0.0564	0.0564
= Inflation Index	0.31	0.2783	0.2783	0.2783	0.2783	0.2783	0.2783
s = Steel	0.03	0.0301	0.0301	0.0301	0.0301	0.0301	0.0301
= Labour & Wages	0.10	0.1100	0.1100	0.1100	0.1100	0.1100	0.1100
Total Escalation Factor	1.09	1.082	1.100	1.118	1.126	1.126	1.125
W. Avg. Escalated Mining fee payable for Strip ratio	MF/ton/ton	872.34	928.93	850.45	957.62	857.62	858.37
Total Bill Value		60,89,48,783.30	68,61,31,579.00	47,94,34,166.00	53,14,97,656.30	52,01,27,447.50	54,40,34,880.00

राकेश रंजनोरी
(Rakesh Ranjanori)
Asst. Manager (Bill)
AGM (Finance)
पाकरी बरवाडीह एन.टी.पी.सी. लि. के संयुक्त उद्यम
NTPC Limited / Joint Venture Pakri

SAILABAL A DHAL
Assistant Chief Planner
Id No- 20870
S Dhal & Co.
Coalcommpharma
LDAN - 360999333301 (GVAT) APV

Sign and Seal of Petitioner (if Proprietor)

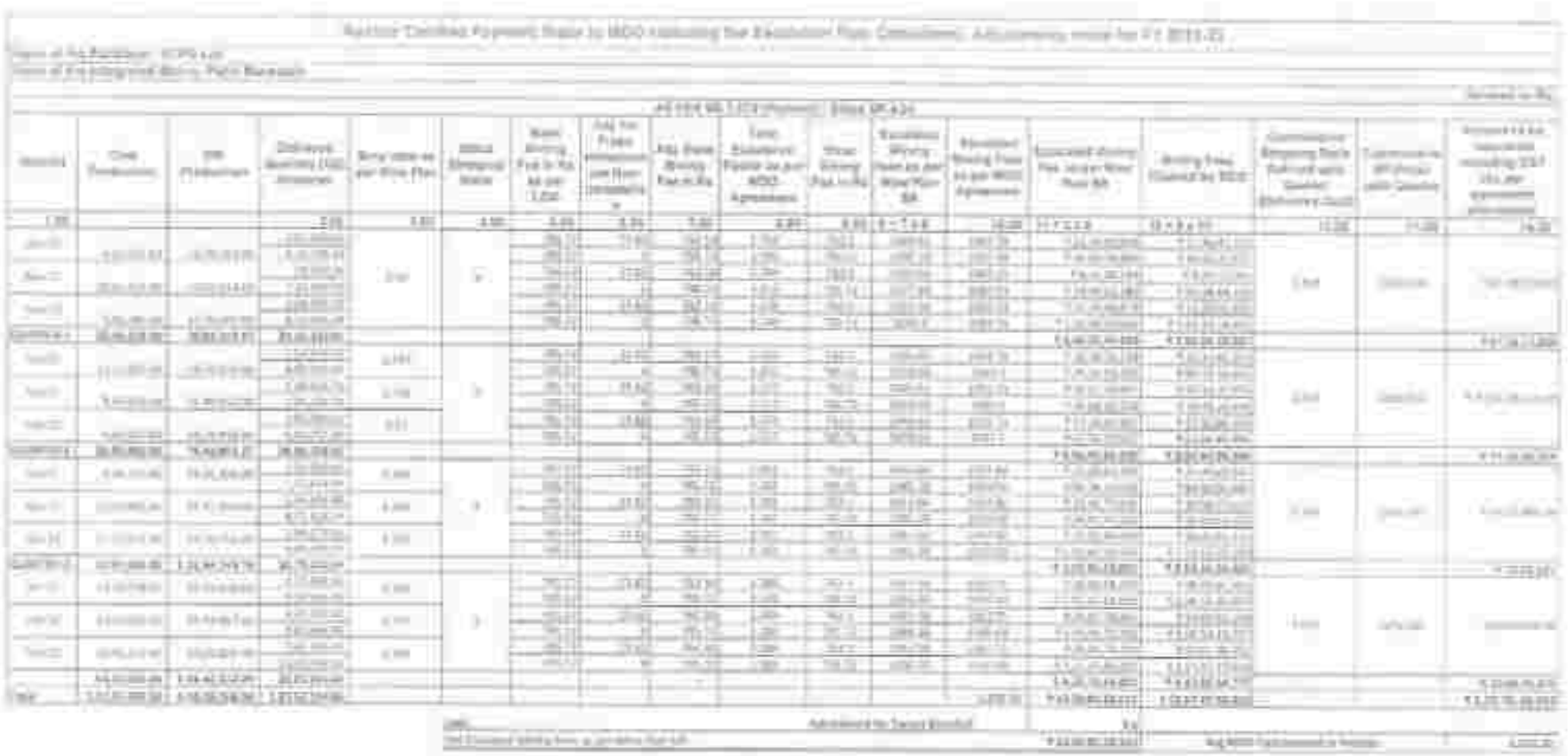
पवन देव जमुआ/PAWAN DEV JAMUA

Name of the Company (CIN) Ltd.

Form of the Statement from April (Annexure)

Computation of Compensation by Mining Lease (Rule 2(1)) to 31.03.2023 as per Guidelines (Guidelines 5 (a)(i))

Particulars													



SAILABALA
DHAL

Name of the Petitioner : [illegible] Ltd

Name of the Integrated Mine: Pench Area-I/II

Calculation of Weighted Avg. Mining Fees - 01.04.2023 to 31.03.2028 as per Stipulated Strip Ratio 3.875

Particulars	Unit	01.04.2023 to 30.09.2023	01.10.2023 to 31.03.2024	01.04.2024 to 31.03.2025	01.04.2025 to 31.03.2026	01.04.2026 to 31.03.2027	01.04.2027 to 31.03.2028	01.04.2023 to 31.03.2028
Quantity as per CMPDI Mine Plan/Mine Report in MT		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Calculation of Mining Fees as per provisions of this rules								
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Name of the Publication: PRICOL

Name of the Independent Mines Panel Advocate:

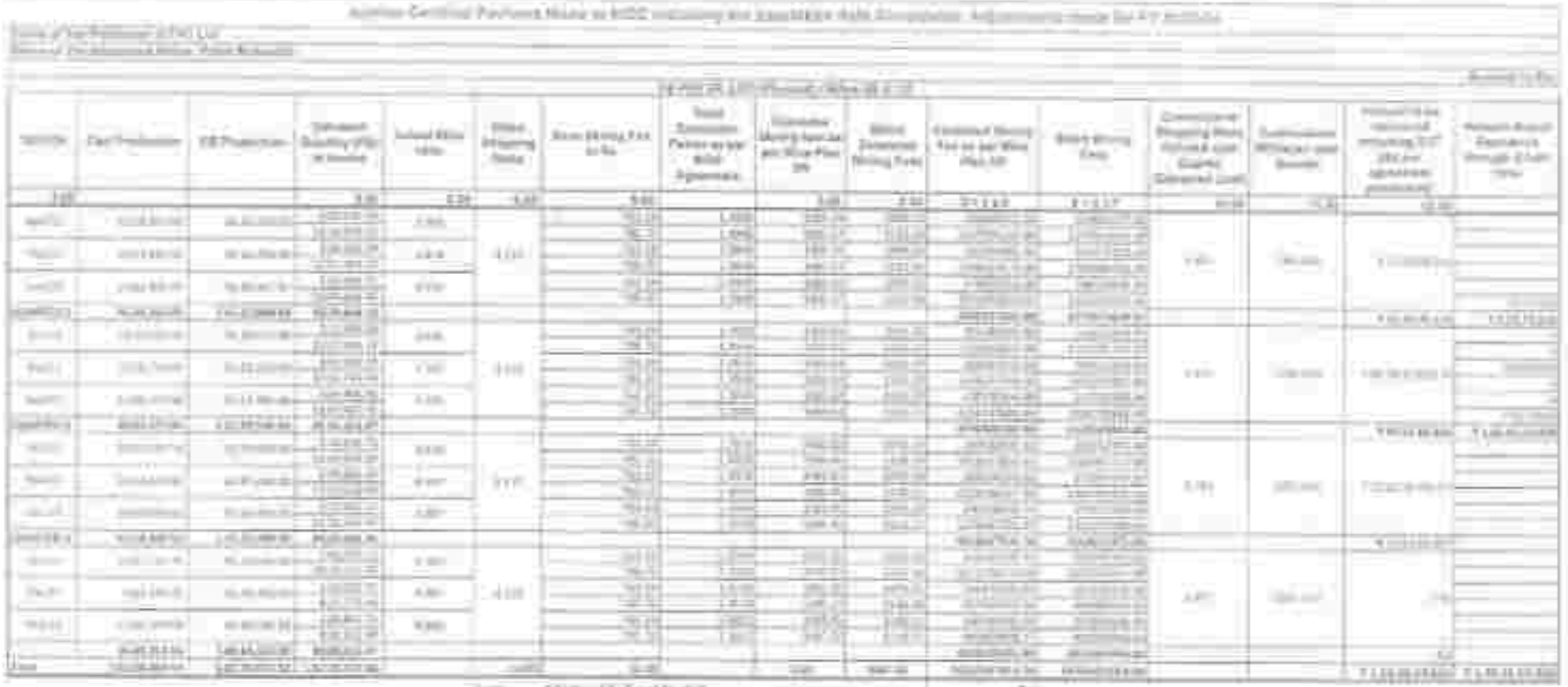
Calculation of Weighted avg. Mining Fees - 01.04.2022 to 31.01.2023 as per Stipulated Govt Rate 3.8%












For M/s GEOM PAWAN DEVELOPERS
Director & Member
Director & Member
Director & Member

Calculation of Weighted avg. Closing Fees - 01.04.2023 to 31.03.2024 as per Uploaded Tally Form 3.B1B



Gaurav Rastogi

Graduate (Chi. Partner)
M.No.- 22802
S.Dhar & Co
Cost Accountants
UDIN : 24228802BKAUS...

Calculation of Weighted avg. Closing Fees - 01.04.2024 to 31.03.2025 as per DigiLocker Blog Rule 3.2(1)









Annexure - J

Details of Hired Transportation (Buses)

Name of the Tehsildar: **VIJAYAWADA**

Name of the Mandal: Vijayawada **Pakala Ramanaidu**

Year	Vendor Name	Total Quantity Transported (Ton)	Avg Rate per MT							Distance wise per Ton
			Truck Loading	Transportation	Weight Loading	Extra/less weighing	Overload deductions	Value	UoM	
2015-16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Total Average Rate	[illegible]						[illegible]	[illegible]	[illegible]
2020-21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Total Average Rate	[illegible]						[illegible]	[illegible]	[illegible]
2016-17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Total Average Rate							[illegible]	[illegible]	[illegible]
2021-22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Total Average Rate	[illegible]						[illegible]	[illegible]	[illegible]
2018-19	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Total Average Rate	[illegible]						[illegible]	[illegible]	[illegible]

[illegible]
Gannavaram

SAILABALA
DHAL
(Right and Best in Quality)
Sailabala Dhal Factory
M No - 23535
S Dhal & Co
Cost Accountants
Web : [illegible]

Annexure - K

Details of Mine Closure Expenses

Name of the Petitioner: NTPC Ltd.

Name of the Integrated Mines: Pakri Barwadih

Amount in Rs Lakhs

1 Amount Expressed in Current Rupees year to date of Commercial Operation (Rs)	PV	[illegible]
2 Life of Mine over which closure is to be Scattered (Yrs)	n	35
3 Discounting Rate per Year (%)	r	8.37%
4 Amount recoverable per Year (Rs)	PV = FV x (1+r)^-n	957.80

A. Deposit after the date of Commercial operation - when mine closure is in scope of Generating Company such

Production Unit No. (1)	Amount of Deposit in Escrow account (2)	Date of Deposit in Escrow account (3)	Interest Earned/Accrued on Escrow account (4)	Amount received from Escrow account towards Mine closure (5)	Admissible Mine closure expense (6)
1	228.00	27.12.2020			228.00
2	161.00	27.03.2021			161.00
3	307.00	28.03.2022			307.00
4	260.00	26.03.2023			260.00
5	61.00	26.03.2024			61.00

B. Deposit after the date of Commercial operation - when mine closure is in scope of Mine Developer & Operator (MDO)

Production Unit No. (1)	Amount of Deposit in Escrow account (2)	Date of Deposit in Escrow account (3)	Remaining unit or weighted average rate of Interest of <Bank loan (4)	Interest Earned/Accrued on Escrow account (5)	Amount received from Escrow account towards Mine closure (6)	Adjustment to be made in Input price as a part of Mine closure expense (7)
1	228.00	27.12.2020	28.45	64.86		-228.00
2	161.00	27.03.2021	31.31	50.40		-161.00
3	307.00	28.03.2022	36.25	111.29		-307.00
4	260.00	26.03.2023	100.00	71.41		-71.41
5	61.00	26.03.2024	100.44	61.25		-0.25

SARJAMDA
DMG
Dist and Dept of Author
Sarjamda Dist. Pamur
M No - 22808
9 Dec 2 Cr
Coal Controller
GSTN - [illegible]

Annexure - L

एनटीपीसी
NTPC
A Maharatna Company

एन टी पी सी लिमिटेड
(भारत सरकार का उपक्रम)

N T P C Limited
पीबीए, सीबीए, एवं केडी कोल माइनिंग प्रोजेक्ट
PB, CB & KD Coal Mining Projects

Ref: 1040/ PB / GD/ 2019-20 /

Date: 24-12-20

To
The Coal Controller,
O/o of the Coal Controller,
1, Council House Street,
Kolkata - 700 001.

Email: coalcontrolcb@nic.in
Fax: 033-22482459

Sub: Annual Declaration of grade of Coal for Pakri Barwadih Coal Mining Project of M/s NTPC Ltd. Hazaribagh for the F.Y 2019-20.

Dear Sir,

In reference to the above subject, we are hereby submitting the application for declaration of annual grade of coal with requisite plans and data for the F.Y 2019-20 for Pakri Barwadih Coal Mining Project of M/s NTPC Ltd, Hazaribagh.

It is requested to consider our coal grade declaration application for overall composite grade at dispatch point on the basis of analytical results of coal as given below:

1. The Coal Grade of Western Quarry for the F.Y. 2019-20 is G-9 and
2. The Coal Grade of Eastern Quarry for the F.Y. 2019-20 is G-9.

Thanking You,

Encl: A/a

Yours Faithfully

A.K.Gupta
Director (Commercial),
Nominated Owner.

A. K. GUPTA
Director (Commercial) &
Nominated Owner,
NTPC

CC: The OSD, Coal Controller's Organization, CMPDII, Complex, Kanke Road, Ranchi

पाकरी बरवाडीह, चट्टी बरियातु एवं केरेडारी कोल माइनिंग प्रोजेक्ट, सिकरी साईट कार्यालय, पी.ओ.-बड़कागांव, जिला - हजारीबाग - 825311
Pakri Barwadih, Chatti Bariatu & Keredari Coal Mining Projects, Sikri Site Office, P.O. Barkagaon, Dist. Hazaribag - 825311
Registered Office: NTPC Bhawan, Scope Complex, 7 Institutional Area, Lodhi Road, New Delhi - 110003

एनटीपीसी
NTPC
A Maharatna Company

एन टी पी सी लिमिटेड
(भारत सरकार का उद्यम)
N T P C Limited
पीएबीए, सीएबीए, एवं डीडी कोल माइनिंग प्रोजेक्ट
PB, CB & KD Coal Mining Projects

Ref: 1040/ PB / GD/ 2020-21 /

Date: 03/01/2020

To
The Coal Controller,
O/o of the Coal Controller,
1, Council House Street,
Kolkata - 700 001

Email: coalcont-wb@nic.in
Fax: 033-22482469

Sub: Annual Declaration of grade of Coal for Pakri Barwadih Coal Mining Project of M/s NTPC Ltd, Hazaribagh for the F.Y 2020-21.

Dear Sir,

In reference to the above subject, we are hereby submitting the application for declaration of annual grade of coal with requisite plans and data for the F.Y 2020-21 for Pakri Barwadih Coal Mining Project of M/s NTPC Ltd, Hazaribagh.

It is requested to consider our coal grade declaration application for overall composite grade at dispatch point on the basis of analytical results of coal as given below.

1. The Coal Grade of Western Quarry for the F.Y. 2020-21 is G-8 and
2. The Coal Grade of Eastern Quarry for the F.Y. 2020-21 is G-9.

Thanking You,

Encl: A/a

Yours Faithfully

A.K. Gupta
Director (Commercial),
Nominated Owner.

CC: The OSD, Coal Controller's Organization, CMPDIL Complex, Kanke Road, Ranchi.

एनटीपीसी
NTPC
A Navratna Company

एन टी पी सी लिमिटेड
(भारत सरकार का उपक्रम)

N T P C Limited
पीएसीए, सीएबीए, एवं बादम कोल माईनिंग प्रोजेक्ट
PB, CB & Badam Coal Mining Projects

Ref: 1040/PB/GD/ 2021-22/

Date: 24.12.2020

To
The Coal Controller,
O/o of the Coal Controller,
1, Council House Street,
Kolkata - 700 001

Email: coalcont-sb@nic.in
Fax: 033-22482459

Sub: Annual Declaration of grade of Coal for Pakri Barwadih Coal Mining Project of M/s NTPC Ltd, Hazaribagh for the F.Y 2021-22.

Dear Sir,

In reference to the above subject, we are hereby submitting the application for declaration of annual grade of coal with requisite plans and data for the F.Y 2021-22 for Pakri Barwadih Coal Mining Project of M/s NTPC Ltd, Hazaribagh.

It is requested to consider our coal grade declaration application for overall composite grade at dispatch point on the basis of analytical results of coal as given below:

1. The Coal Grade of Western Quarry for the F.Y. 2021-22 is **G-9** and
2. The Coal Grade of Eastern Quarry for the F.Y. 2021-22 is **G-9.**

Thanking You,

Encl: A/a

Yours Faithfully

Chandan Kumar Mondol
Director (Commercial),
Nominated Owner

C. K. MONDOL
Director (Commercial) &
Nominated Owner
NTPC Limited

CC: The OSD, Coal Controller's Organization, CMPDIL Complex, Kanke Road, Ranchi

एनटीपीसी
NTPC
A Maharatna Company

एन टी पी सी लिमिटेड
(भारत सरकार का उद्यम)
N T P C Limited
पी.बी., सी.बी., एवं बदम कोल माईनिंग प्रोजेक्ट
PB, CB & Badam Coal Mining Projects

Ref: 1040/PB/GD/ 2022-23/

Date: 10/01/2023

To
The Coal Controller,
O/o of the Coal Controller,
1, Council House Street,
Kolkata - 700 001.

Email: coalcont-wb@nic.in
Fax: 033-22482459

Sub: Annual Declaration of grade of Coal for Pakri Barwadih Coal Mining Project of M/s NTPC Ltd, Hazaribagh for the F.Y 2022-23.

Dear Sir,

In reference to the above subject, we are hereby submitting the application for declaration of annual grade of coal with requisite plans and data for the F.Y 2022-23 for Pakri Barwadih Coal Mining Project of M/s NTPC Ltd, Hazaribagh.

It is requested to consider our coal grade declaration application for overall composite grade at dispatch point on the basis of analytical results of coal as given below:

1. The Coal Grade of Western Quarry for the F.Y. 2022-23 is **G-9.**

Thanking You,

Encl: A/a

Yours Faithfully

Chandan Kumar Mondol
Director (Commercial),
Nominated Owner.

CC: The OSD, Coal Controller's Organization, CMPDIL Complex, Kanke Road, Ranchi.

एनटीपीसी
NTPC

एन टी पी सी लिमिटेड
(भारत सरकार का उद्यम)
NTPC Limited
A Govt. of India Enterprise
पकरी बरवाडीह / PAKRI BARWADIH

Ref: 1040/PBCMP/Mining/CCO/14

Date: 07.01.2024

To

The Coal Controller,
Coal Controller Organisation,
Scope Minar 5th Floor,
Core – II Laxmi Nagar, Delhi,
110092

Sub: Declaration of Composite Grade of coal from Pakri Barwadih Coal Mining Project of NTPC Limited for the F.Y. 2023-24

Ref: Your letter ref: Tech/AnnualGrade/NTPC/2023-24/356233 dated. 15.12.2023

Dear Sir,

With reference to the subject and your letter above, we hereby declare the composite grade of coal for Pakri Barwadih Coal Mining Project of NTPC Limited for the FY 2023-24 as below:

1. Coal grade (composite) for Western Quarry of Pakri Barwadih Coal Mining Project for FY 2023-24 is G-9.
2. The ratio of mix of seams along with the grade shall be maintained for the year 2023-24 as per certificate (s) enclosed.

Thanking You.

Yours faithfully,

(SHIVAM SRIVASTAVA)
Director (Fuel)
Nominated Owner
SHIVAM SRIVASTAVA
Director (Fuel) &
Nominated Owner of Coal Mining Projects
NTPC Limited

Enclosure: As above.

Copy to: The OSD, Coal Controller's Orgaoization, Ranchi

Reconciliation of capital/closing claimed vide u/s books of accounts

Name of the Promoter: VERI Ltd
Name of the Integrated Mega Pulp Renewable

(Amount in Rs. Lakh)

S. No.	Particulars	As on 31.03.2019	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1	Closing Gross Block as per ITACT	2,74,689.24	2,93,032.78	2,91,221.10	3,12,426.11	4,34,810.78	4,38,222.72
	Add: (-) Adjustment / Leasehold Land		13,478.78	13,478.78	13,478.78	13,478.78	13,478.78
	Add: (-) Adjustment / Leasehold Building		52.72	52.72	52.72	52.72	52.72
	Add: (-) Adjustment/ FFE	281.54	-281.54	-281.54	-281.54	-281.54	-281.54
2	Add: (-) Adjustment due Revaluation (+/-)	16,777.01	18,243.50	18,243.50	18,243.50	18,243.50	18,243.50
3	Closing Gross Block as per ITACT	2,91,614.85	3,24,626.98	3,04,663.75	4,58,376.85	4,85,369.19	4,89,316.68
4	Closing Gross Block as per ITACT		3,70,087.78	4,03,677.78	4,24,128.90	4,57,424.71	4,74,810.79
5	Add/Less: Adjustment relevant to Accounts	-	-	-	-	-	+103.68
6	Closing Gross Block as per ITACT		3,24,810.92	3,52,630.96	3,66,881.12	4,03,379.63	4,19,208.17
7	Total Additions as per books (6) = 2 + 4 + 5	2,91,614.85	98,008.94	44,749.87	1,32,495.78	74,989.87	54,857.56
8	Less: Additions pertaining to other Mega Units/ Non-Mega Business	-					
8.1	Claim Raised	38,581.01	8,714.97	42,487.01	-	-	-
8.2	Cancelled	77,017.35	12,005.19	100.94	22.29	-	-
8.3	Cost Sharing (If)	0.11		0.11	-	-	-
8.4	Others					917.27	2,251.63
9	Net Additions pertaining to current Mega	1,85,228.89	82,718.65	2,161.81	1,32,516.51	74,072.60	52,605.93
10	Less: Investments (other than eligible) not claimed	-	102.72	-	-	-	102.72
11	Net Additional Capital Expenditure Claimed (on accrual basis) (1-10-8.4)	1,85,228.89	82,820.92	22,850.27	1,32,516.51	74,072.60	52,503.21
12	Less: Unutilized gst Additions	34,078.67	37,429.02	1,299.98	19,071.13	1,256.00	10,141.73
13	Add: Discharge of earlier Barred Additions	-	21,160.16	8,941.56	21,430.77	17,307.71	14,833.37
14	Net Additional Capital Expenditure Claimed (on cash basis)	1,51,150.22	66,551.06	29,491.85	1,34,876.15	90,124.31	57,194.84

VERI Ltd. Director/PAYYAR DEV JAMTA
Director
Gaurav Rastogi
SAILABALA DHAL
Sailabala Dhal, Partner
M No. - 339529
S Dhal & Co.
Chartered Accountants

Audited Financial Statements as on 31.03.2020



एनटीपीसी NTPC
A Maharatna Company

PAKRI BARWADIH COAL MINE

BALANCE SHEET

(Amount in ₹)

	As at	Note	31.03.2020	31.03.2019
001	**ASSETS**		**0.00**	**0.00**
002			**0.00**	**0.00**
003	**Non-Current Assets**		**0.00**	**0.00**
004	Property, plant and equipment	2	31,737,786,161.33	17,448,248,599.40
005	Capital-Work-in-Progress	3	17,965,803,921.41	22,558,090,635.84
006	Intangible Assets	4	21,777.03	182,775.93
007	Intangible Assets under Development	5	558,911,074.70	304,485,510.00
008	Investments in Subsidiaries and Joint Ventures	6	0.00	0.00
009	**Financial Assets**		**0.00**	**0.00**
010	i) Investments	7	0.00	0.00
011	ii) Trade receivables	8	0.00	0.00
012	iii) Loans	9	39,080,383.37	36,359,145.57
013	iv) Other financial assets	10	269,525,630.00	193,334,854.00
014	Other non-current assets	11	2,651,596,914.13	2,628,292,669.33
015	**Total non-current assets**		**53,222,704,881.97**	**43,167,914,390.07**
016			**0.00**	**0.00**
017	**Current Assets**		**0.00**	**0.00**
018	Inventories	12	223,146,927.02	277,316,506.34
019	**Financial assets**		**0.00**	**0.00**
020	i) Investments	13	0.00	0.00
021	ii) Trade receivables	14	783,355,093.53	0.00
022	iii) Cash and cash equivalents	15	1,577,126.89	928,131.07
023	iv) Bank balances other than cash and cash equivalents	16	0.00	0.00
024	v) Loans	17	21,666,116.19	18,875,114.97
025	vi) Other financial assets	18	246,963,727.94	3,534,729.57
026			0.00	0.00
027	Other Current Assets	19	466,867,630.38	253,431,613.73
028			0.00	0.00
029			**0.00**	**0.00**
030	**Total Current Assets**		**1,743,888,621.95**	**554,086,195.68**
031	Regulatory deferral account debit balances	20	0.00	0.00
032	**TOTAL ASSETS**		**54,966,393,503.92**	**43,722,000,585.75**
034	**EQUITY AND LIABILITIES**		**0.00**	**0.00**
035	**Equity**		**0.00**	**0.00**
036	Equity Share capital	21	0.00	0.00
037	Other equity	22	876,302,345.37	-80,686,515.88
040	**Total equity**		**876,302,345.37**	**-80,686,515.88**
041			0.00	0.00
042	**Liabilities**		**0.00**	**0.00**
043	**Non-Current Liabilities**		**0.00**	**0.00**
044	**Financial liabilities**		**0.00**	**0.00**
045	i) Borrowings	23	2,316,632,832.98	0.00

Locked: 17.06.2020 - 13:27:55
Run on: 17.06.2020 - 13:32:31 Version: 0

Ramesh Chandra Debnath

822

PRASHANT KASHYAP

PAKRI BARWADIH COAL MINE

BALANCE SHEET

(Amount in ₹)

	As at	Note	31.03.2020	31.03.2019
046	ii) Trade payables		0.00	0.00
047	- Total outstanding dues of micro and small enterprises	24	0.00	0.00
048	- Total outstanding dues of creditors other than micro and small enterprises	24	322,972.78	2,268,377.91
049	iii) Other financial liabilities	25	0.00	257,620.00
050	Provisions	26	0.00	0.00
051	Deferred Tax Liabilities (net)	27	0.00	0.00
052	Other non-current liabilities	28	0.00	0.00
053			0.00	0.00
054	Total non-current liabilities		2,318,555,805.76	2,525,997.91
055			0.00	0.00
056	Current Liabilities		0.00	0.00
057	Financial liabilities		0.00	0.00
058	i) Borrowings	29	0.00	0.00
059	ii) Trade Payables		0.00	0.00
060	- Total outstanding dues of micro and small enterprises	30	19,401,232.50	6,265,614.04
061	- Total outstanding dues of creditors other than micro and small enterprises	30	1,408,593,685.41	1,847,687,550.62
062	iii) Other financial liabilities	31	4,629,032,153.53	5,127,348,206.31
063	Other current liabilities	32	311,515,989.70	362,196,575.00
064	Provisions	33	9,040,887,268.47	7,102,046,145.76
065	Current tax liabilities (net)	34	0.00	0.00
066			0.00	0.00
067	Sub Total		15,409,430,421.01	14,446,463,093.73
068			0.00	0.00
069	Deferred Revenue	35	0.00	0.00
070	Regulatory deferral account credit balances	36	0.00	0.00
071	Inter Unit Accounts		30,363,704,931.78	29,360,988,009.00
072			0.00	0.00
073	TOTAL EQUITY AND LIABILITIES		54,966,393,503.92	43,722,880,585.75
074	Significant Accounting Policies as per Note 1	1	0.00	0.00
075			0.00	0.00
076	The accompanying notes 1 to 44 form an integral part of these financial statements		0.00	0.00
077			0.00	0.00
078			0.00	0.00

(Auditor Initial & Stamp)

(Head of Finance)

(Head of Unit)

Lockout: 17.05.2020 - 13:27:56

Run on: 17.05.2020 - 13:32:31 Version: 0

PAKRI BARWADIH COAL MINE

STATEMENT OF PROFIT AND LOSS

(Amount in ₹)

	For the Year ended	Note	31.03.2020	31.03.2019
001	Revenue		0.00	0.00
002	Revenue from operations	37	17,257,296,381.03	0.00
003	Other income	39	110,637,024.13	287,122,045.63
005	**Total Revenue**		17,367,933,905.16	287,122,045.63
007	**Expenses**		0.00	0.00
008	Fuel excluding cost of captive coal	38A	15,795,398,847.94	0.00
009	Employee benefits expense	38	302,608,972.95	3,378,735.82
010	Electricity Purchased		0.00	0.00
011	Finance costs	40	1,094,875,556.63	0.00
012	Depreciation, amortization and impairment expense	41	346,267,210.82	0.00
013			0.00	0.00
014	Other expenses	42	552,970,818.17	19,504,480.94
015	CC expenses charge to revenue		314,232,117.00	0.00
016	Less: Unit expenses transferred to CC		0.00	0.00
017	**Total expenses**		16,397,349,524.11	22,883,222.76
020	**Profit before exceptional items & tax**		970,584,381.05	184,240,822.87
021	Exceptional items		0.00	0.00
024	**Profit before tax**		970,584,381.05	184,240,822.87
027	**Tax expense:**		0.00	0.00
028	Current tax		0.00	0.00
029	Deferred tax		0.00	0.00
030			0.00	0.00
031	**Total Tax expense**		0.00	0.00
032	**Profit for the period before regulatory deferral account balances**		970,584,381.05	184,240,822.87
033	**Movement in regulatory deferral account balances**		0.00	0.00
034	Regulatory deferral account - deferred		0.00	0.00
035	Others		0.00	0.00
036	Tax impact on Regulatory deferral account balances		0.00	0.00
037	**Movement in Regulatory deferral account balances (Net of Tax)**		0.00	0.00
039	**Profit for the period/ year**		970,584,381.05	184,240,822.87
040	Other comprehensive income		0.00	0.00
041	**(A) Items that will not be reclassified to profit or loss**		0.00	0.00
042	- Net gain/(losses) on fair value of equity instruments through other comprehensive income		0.00	0.00
043	Income tax on above that will not be reclassified to profit or loss		0.00	0.00
044	- Net actuarial gain/(losses) on defined benefit plans		7,595,519.80	0.00
045	Income tax on above that will not be		0.00	0.00

Locked: 17.05.2020 - 13:27:53
Then on: 17.05.2020 - 13:34:20 Version: 0

PRASHANT KASHYAP

PAKRI BARWADIH COAL MINE

STATEMENT OF PROFIT AND LOSS

(Amount in ₹)

	For the Year ended	Note	31.03.2020	31.03.2019
	reclassified to profit or loss			
048			0.00	0.00
049	**Other comprehensive income for the year, net of income tax**		**-7,595,519.80**	**0.00**
050			0.00	0.00
051	**Total Comprehensive Income for the year**		**962,988,861.25**	**184,240,922.87**
052			0.00	0.00
056	**Earnings per equity share:**		**0.00**	**0.00**
057	Basic & Diluted		0.00	0.00
058	Significant Accounting Policies		0.00	0.00
059	Expenditure during construction period (Net)/Dev. of coal mines (net) 43 H3A		0.00	0.00
070	The accompanying notes 1 to 44 form an integral part of these financial statements.		0.00	0.00

(Auditor Initial & Stamp)

Ramesh Chandra Debnath

(Head of Finance)

(Head of Unit)

PAWAN DEV JAMTA

Locked: 17.05.2020 - 13:27:53

Run on: 17.05.2020 - 13:34:29 Version: 0

Note forming part of Balance Sheet
Note 2 : Property, Plant And Equipment
Business Area :1040

(Amount in Rupees)

Asset Class	Opening Gross Block As At 01.04.2019	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2020	Opening Depreciation As At 01.04.2019	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2020	Net Block As At 31.03.2020	Net Block As At 31.03.2019
1 TANGIBLE ASSETS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 Land : (including development expenses)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 Freehold	3066405998.00	680026.00	0.00	3066086024.00	0.00	0.00	0.00	0.00	3066086024.00	3066405998.00
4 Right of Use	14720026811.48	980993788.00	15299258504.89	401762094.59	697803906.80	35821948.77	(700923930.69)	32702326.89	373059767.70	14022222902.68
5 Submergence	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6 CBA Land	0.00	495500461.00	18180228058.89	18675728519.89	0.00	388325431.80	709923930.69	1098249362.54	17577479157.35	0.00
7 Roads,bridges, culverts & helipads	90823297.11	0.00	453004617.61	543827914.72	11808644.09	18261784.28	0.00	30148828.37	513679086.35	78956453.02
8 Building :	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9 Freehold	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 Male plant	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11 Others	203660765.13	594183282.22	3484809.80	800358657.24	50722658.01	49690675.50	0.00	100613333.51	799896223.89	152138107.11
12 Right of Use	0.00	30414108.00	(24588247.00)	5825861.00	0.00	3057765.35	(1366013.72)	2291741.63	3534119.37	0.00
13 Temporary erection	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14 Water Supply, drainage & sewerage system	11044287.29	5645491.16	0.00	17289778.45	1760415.60	1898874.37	0.00	3659289.98	13630488.46	9283871.69
15 Hydraulic works, barrages, dams, tunnels and power channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16 MGR track and signalling system	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17 Railway sliding	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18 Earth dam reservoir	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19 Plant and machinery(including associated civil works)	31725810.47	11443441.08	0.00	43169051.55	6479039.21	4194249.39	0.00	10673588.60	32495463.08	25246271.26
Divided Asset										

Dy. Chief Engineer (Civil) / PAWAN DEV JANTA
SE Reserve (Retired)
Deputy General Manager
(CE (P) SE (P) SE (C) Retired)
EDC, Ahmedabad

Note forming part of Balance Sheet
Note 2 : Property, Plant And Equipment
Business Area :1040

(Amount in Rupees)

Asset Class	Opening Gross Block As At 01.04.2019	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2020	Opening Depreciation As At 01.04.2019	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2020	Net Block As At 31.03.2020	Net Block As At 31.03.2019
20 Plant and machinery(including associated civil works) -Right of use Asset	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21 Furniture and fixtures	20352039.92	11174794.00	(1799924.57)	29729909.35	7726918.23	2729550.00	(431546.21)	10024928.02	19704981.33	12625121.69
22 Assets under 5 Km Scheme	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23 Vehicles - Owned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24 Vehicles - Leased	614119.00	0.00	(614119.00)	0.00	447795.11	38382.44	(486177.55)	0.00	0.00	166323.89
25 Office equipment	21411450.26	4250907.00	(1358494.59)	24303868.67	11754601.93	4158322.54	(687505.11)	15225419.36	9078449.31	9656854.33
26 EDP, WP machines and satcom equipment	25537471.02	5886709.00	(5725782.57)	25698397.45	18676544.99	5121064.71	(3067201.09)	17730408.62	7967988.83	6860926.03
27 Construction equipments	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28 Electrical Installations	43591038.33	834337474.63	(275954.26)	877652518.90	12984548.64	37423590.75	(159152.46)	50249086.93	827403431.97	30606489.69
29 Communication equipments	9381534.02	957910.05	(282726.00)	10065818.07	1836623.73	927716.77	(8952.99)	2755287.51	7310530.56	7545010.29
30 Hospital equipments	512150.34	0.00	0.00	512150.34	44824.51	37503.92	0.00	82328.43	429821.91	467325.83
31 Laboratory and workshop equipments	2977525.96	0.00	0.00	2977525.96	510581.96	285608.50	0.00	796190.46	2181335.50	2466944.00
32 Capital expenditure on assets not owned by the Company	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33 Assets of Government	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34 Less: Grants from Government	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

832

Report Date : 17.05.2020 13:31:17 Version : 0 - Status Locked (Date : 17.05.2020)

2

Note forming part of Balance Sheet
Note 2 : Property, Plant And Equipment
Business Area :1040

(Amount in Rupees)

Asset Class	Opening Gross Block As At 01.04.2019	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2020	Opening Depreciation As At 01.04.2019	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2020	Net Block As At 31.03.2020	Net Block As At 31.03.2019
35 Less: Recoverable from GOI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36 Assets for ash utilisation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37 (Less): -Adjusted from fly ash utilisation reserve fund	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38 Site Restoration Cost	0.00	1824300000.00	0.00	1824300000.00	0.00	37230612.24	0.00	37230612.24	1787069387.76	0.00
39 Mining Properties	0.00	7070316235.80	0.00	7070316235.80	0.00	353515811.79	0.00	353515811.79	6716800424.01	0.00
Grand Total (Tangible)	18267864104.29	11930053728.17	3306796393.52	33504714225.98	819615504.69	953530088.88	(8206548.12)	1766948044.65	31737766181.33	17448248599.40
Grand Total Prev Year (Tangible)	16424197857.95	1600008819.46	237657720.88	18267864104.29	461634283.77	360608418.11	(2887196.99)	819615504.89	17448248599.40	15962563574.18

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Note forming part of Balance Sheet
Note 2 : Property, Plant And Equipment
Business Area :1040

(Amount in Rupees)

Details of Adjustments of Gross Block and Depreciation/Amortization				
Particulars	**Gross Block**		**Depreciation/Amortization**	
	Tangible As At: 31.03.2020	**Tangible As At: 31.03.2019**	**Tangible As At: 31.03.2020**	**Tangible As At: 31.03.2019**
Disposal of assets	(1000641.09)	(3166692.70)	(885146.12)	(3077434.66)
Retirement of assets	(133489.87)	0.00	(133489.87)	0.00
Cost adjustments	3341457763.51	240309124.67	0.00	0.00
Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Depreciation on construction equipment capitalised as EDC	0.00	0.00	0.00	0.00
Prior Period Depreciation due to Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Special Depreciation (As per New Policy)	0.00	0.00	0.00	0.00
Transfer in /out because of Inter Unit transfers	(33527239.03)	515294.91	(5187913.13)	190237.67
Others	0.00	0.00	0.00	0.00
TOTAL	**3306796393.52**	**237657726.88**	**(6206549.12)**	**(2887196.99)**

Note:- Additions during the year includes capital expenditure towards CSR (in Rs.) : 0.00



Note forming part of Balance Sheet
Note-4 Non Current Assets- Intangible Assets
Business Area :1040

(Amount in Rupees)

Asset Class	Opening Gross Block As At 01.04.2019	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2020	Opening Depreciation As At 01.04.2019	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2020	Net Block As At 31.03.2020	Net Block As At 31.03.2019
INTANGIBLE ASSETS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 Right of Use- Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 -Others	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 -Software	2564119.84	0.00	0.00	2564119.84	2381343.91	160998.90	0.00	2542342.81	21777.03	182775.93
Grand Total (Intangible)	2564119.84	0.00	0.00	2564119.84	2381343.91	160998.90	0.00	2542342.81	21777.03	182775.93
Grand Total Prev Year (Intangible)	2564119.84	0.00	0.00	2564119.84	1993887.97	387455.94	0.00	2381343.91	182775.93	570231.87



Note forming part of Balance Sheet
Note-4 Non Current Assets- Intangible Assets
Business Area :1040

(Amount in Rupees)

Details of Adjustments of Gross Block and Depreciation/Amortization				
Particulars	**Gross Block**		**Depreciation/Amortization**	
	InTangible As At: 31.03.2020	**InTangible As At: 31.03.2019**	**InTangible As At: 31.03.2020**	**InTangible As At: 31.03.2019**
Disposal of assets	0.00	0.00	0.00	0.00
Retirement of assets	0.00	0.00	0.00	0.00
Cost adjustments	0.00	0.00	0.00	0.00
Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Depreciation on construction equipment capitalised as EDC	0.00	0.00	0.00	0.00
Prior Period Depreciation due to Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Special Depreciation (As per New Policy)	0.00	0.00	0.00	0.00
Transfer in /out because of Inter Unit transfers	0.00	0.00	0.00	0.00
Others	0.00	0.00	0.00	0.00
TOTAL	**0.00**	**0.00**	**0.00**	**0.00**

Note - Additions during the year includes capital expenditure towards CSR (in Rs.) : 0.00

Note forming part of Balance Sheet
Note 3: Capital-Work-in-Progress
Business Area: PAKRI BARWADIH COAL MINE

(Amount in Rupees)

Sl No	Asset Class	As At 01.04.2019	Addition	Deduction/ Adjustment	Capitalized	As At 31.03.2020
	1	2	3	4	5	6
1	CAPITAL WORK-IN-PROGRESS					
2	Development of land	1397325.00	2716770.29			4114095.29
3	Roads, bridges, culverts & helipads	107856907.00	2321870989.78	(453004817.61)	40749.00	1978682530.17
4	Piling and foundation					
5	Buildings :					
6	Main plant					
7	Others	206040889.90	475590108.89	(1457918.90)	054142533.22	26030529.66
8	Temporary erection					
9	Water supply, drainage and sewerage system		5845491.19		5845491.19	
10	Hydraulic works, barrages, dams, tunnels and power channel					
11	MGR track and signalling system					
12	Railway siding					
13	Earth dam reservoir					
14	Plant and equipment	5852563104.40	2684549680.11	74191319.45	5606546.06	8605695663.88
15	Furniture and fixtures					
16	Vehicles					
17	Office equipment					
18	EDP/WP machines & satcom equipment					
19	Construction equipments					
20	Electrical installations	1326776400.43	590719674.07		834238066.83	1082257907.67
21	Communication equipment		294929.62			294929.62
22	Hospital equipments					
23	Laboratory and workshop equipments					
24	Assets under 5Km Scheme of the GOI					
25	Capital expenditure on assets not owned by the company		40422885.81	(40422885.81)		
26	Expenditure towards development of coal mines	15005569507.73	(8820330028.73)			6185239479.00
27	Survey Investigation Consultancy & Supervision Cha					
28	Difference in exchange on foreign currency loans					

PAWAN DEV JAMTA
Deputy General Manager (Cal)
EOC, A-8A, Sector-1

Note forming part of Balance Sheet
Note 3: Capital-Work-in-Progress
Business Area: PAKRI BARWADIH COAL MINE

(Amount in Rupees)

Sl No	Asset Class	As At 01.04.2019	Addition	Deduction/ Adjustment	Capitalized	As At 31.03.2020
	1	2	3	4	5	6
29	Expenditure towards diversion of forest land					
30	Pre-commissioning expenses (net)					
31	ExpPeridAlloca-oth ex attribut Project		56878127.98			56878127.98
32	Expenditure During Construction Period (net)*					
33	LESS : Allocated to related works					
34	LESS : Provision for Unservicable works					
35	**Construction stores (At Cost)**					
36	Steel					
37	Cement					
38	Others	58886521.39	31462312.81	(6331662.06)		84017172.14
39	**Sub-total**	**58886521.39**	**31462312.81**	**(6331662.06)**		**84017172.14**
40	LESS : Provision for shortages					
41	**Sub-total**	**58886521.39**	**31462312.81**	**(6331662.06)**		**84017172.14**
42	**Total CWIP**	**22558090635.84**	**(2610179152.18)**	**(427025764.93)**	**1499675386.32**	**18021210332.41**
43						
44						
45	**PREVIOUS YEAR TOTAL**	**20276818144.36**	**14376592218.12**	**(11968781634.16)**	**99771443.08**	**22558090635.84**

Note:- Additions during the year includes capital expenditure towards CSR (in Rs.) : 0.00

Note forming part of Balance Sheet
Note 5: Intangible Assets under Development
Business Area: PAKRI BARWADIH COAL MINE

(Amount in Rupees)

Sl No	Asset Class	As At 01.04.2019	Addition	Deduction/ Adjustment	Capitalized	As At 31.03.2020
	1	2	3	4	5	6
1	INTANGIBLE ASSETS UNDER DEVELOPMENT					
2	Software					
3	Right to use Others					
4	Exploration and Evaluation Expenditure - Coal Mini	304405810.00	51728993.38			356134803.38
5	Exploratory wells-in-progress					
6	Less: Provision for exploratory wells-in-progress					
7	Total	304405810.00	51728993.38			356134803.38
8	PREVIOUS YEAR TOTAL#					

Note:- Additions during the year includes capital expenditure towards CSR (in Rs.) : 0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 6 TO THE FS-NCA-INVESTMENTS IN SUBSIDIARIES & JOINT VENTURES (Amount in ₹)

	As at	No. of shares	Face value	31.03.2020	31.03.2019
001	**NON CURRENT INVESTMENTS-Investments in subsidiaries and joint ventures**			**0.00**	**0.00**
012	**Equity Instruments - Unquoted-(fully paid up unless otherwise stated, at cost)**			**0.00**	**0.00**
013	**Subsidiary Companies**			**0.00**	**0.00**
014	Patratu Vidyut Utpadan Nigam Ltd.			0.00	0.00
015	NTPC Electric Supply Company Ltd			0.00	0.00
016	NTPC Vidyut Vyapar Nigam Ltd.			0.00	0.00
017	Nabinagar Power Generating Company Ltd.			0.00	0.00
018	Kanti Bijlee Utpadan Nigam Ltd.			0.00	0.00
019	Bhartiya Rail Bijlee Company Ltd.			0.00	0.00
020	NTPC Mining Ltd (NML)			0.00	0.00
021	THDC India Ltd.			0.00	0.00
022	NEEPCO LTD.			0.00	0.00
023				0.00	0.00
024				0.00	0.00
025				0.00	0.00
026				0.00	0.00
027				0.00	0.00
028				0.00	0.00
029				0.00	0.00
030	**Sub Total**			**0.00**	**0.00**
055	**Joint Venture Companies**			**0.00**	**0.00**
056	Utility Powertech Ltd.			0.00	0.00
057	NTPC GE Power Services Pvt.Ltd.			0.00	0.00
058	NTPC-SAIL Power Company Ltd.			0.00	0.00
059	NTPC-Tamil Nadu Energy Company Ltd.			0.00	0.00
060	Ratnagiri Gas & Power Private Ltd.			0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 6 TO THE FS-NCA-INVESTMENTS IN SUBSIDIARIES & JOINT VENTURES (Amount in ₹)

	As at	No. of shares	Face value	31.03.2020	31.03.2019
051	Aravali Power Company Private Ltd.			0.00	0.00
052				0.00	0.00
053	NTPC BHEL Power Projects Private Ltd.			0.00	0.00
054	Meja Urja Nigam Private Limited			0.00	0.00
055	BF-NTPC Energy Systems Ltd.			0.00	0.00
056				0.00	0.00
057	Nabinagar Power Generating Company Ltd.			0.00	0.00
058	Transformer and Electrical Kerala Ltd.			0.00	0.00
059	National High Power Test Laboratory Private Ltd.			0.00	0.00
070				0.00	0.00
071	CIL NTPC Urja Private Ltd.			0.00	0.00
072	Anushakti Vidhyut Nigam Ltd.			0.00	0.00
073	Energy Efficiency Services Ltd.			0.00	0.00
074				0.00	0.00
075	Trincomalee Power Company Ltd.			0.00	0.00
076	Bangladesh-India Friendship Power Company (Pvt.) Ltd.			0.00	0.00
077	Hindustan Urvarak & Rasayan Limited			0.00	0.00
078	Konkan LNG Pvt. Ltd.			0.00	0.00
079				0.00	0.00
081	**Sub Total**			**0.00**	**0.00**
109	Aggregate amount of impairment in the value of investments			0.00	0.00
110				0.00	0.00
111				0.00	0.00
134	Total			0.00	0.00
135	Details of investments			0.00	0.00
136	Aggregate amount of Unquoted Investments			0.00	0.00
141				0.00	0.00

NOTE NO. 6 TO THE FS-NCA-INVESTMENTS IN SUBSIDIARIES & JOINT VENTURES (Amount in ₹)

	As at	No. of shares	Face value	31.03.2020	31.03.2019
142				0.00	0.00
143				0.00	0.00
144				0.00	0.00
145				0.00	0.00
153	Valuation of Investments as per Note 1			0.00	0.00
154				0.00	0.00
202				0.00	0.00
233				0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 7 TO THE FS-NCA-INVESTMENTS **(Amount in ₹)**

	As at	No. of shares	Face value	31.03.2020	31.03.2019
001	Non-current financial assets (investments)			0.00	0.00
006	**Long Term - Trade**			**0.00**	**0.00**
007	**Equity Instruments (fully paid up-unless otherwise stated)**			**0.00**	**0.00**
008	**Quoted**			**0.00**	**0.00**
009	**Joint Venture Companies**			**0.00**	**0.00**
010	PTC India Ltd.			0.00	0.00
070	International Coal Ventures Private Ltd.			0.00	0.00
075	BF-NTPC Energy Systems Ltd.			0.00	0.00
095				0.00	0.00
110	Cooperative Societies			0.00	0.00
111	**Sub Total**			**0.00**	**0.00**
112	Aggregate amount of impairment in the value of investments			0.00	0.00
115	**Total**			**0.00**	**0.00**
120				0.00	0.00
146	NTPC Employees Consumers and Thrift Co-operative Society Ltd. Korba			0.00	0.00
147	NTPC Employees Consumers and Thrift Cooperative Society Ltd. RSTPP			0.00	0.00
148	NTPC Employees Consumers Cooperative Society Ltd. Farakka			0.00	0.00
149	NTPC Employees Consumers Cooperative Society Ltd. Vindhyachal			0.00	0.00
150	NTPC Employees Consumers Cooperative Society Ltd. Anta			0.00	0.00
151	NTPC Employees Consumers Cooperative Society Ltd. Kawas			0.00	0.00
152	NTPC Employees Consumers Cooperative Society Ltd. Kaniha			0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 8 TO THE FS-NCA-TRADE RECEIVABLES

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	Non-current financial assets - Trade receivables	0.00	0.00
002	Unsecured, considered good	0.00	0.00
003	With significant increase in Credit Risk	0.00	0.00
004	Credit impaired	0.00	0.00
005		0.00	0.00
006	**Total**	**0.00**	**0.00**



PAKRI BARWADIH COAL MINE

NOTE NO. 9 TO THE FS-NCA-LOANS

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**Loans (Non Current)**	**0.00**	**0.00**
004	Related Parties	0.00	0.00
005	Secured	0.00	0.00
006	Un-Secured	0.00	0.00
007	With significant increase in Credit Risk	0.00	0.00
008	Credit impaired	0.00	0.00
009		0.00	0.00
010	Employees(including accrued interest)	0.00	0.00
011	Secured	20,548,139.06	20,324,361.61
012	Unsecured	35,484,176.48	30,835,377.89
013	With significant increase in Credit Risk	0.00	0.00
014	Credit impaired	0.00	0.00
015	Less : Employee Loans Discounting	0.00	0.00
016	Secured	7,530,787.53	7,587,249.05
017	Unsecured	9,421,144.54	8,213,344.68
018	Loan to State Government in settlement of dues from customers (Unsecured)	0.00	0.00
019	Others	0.00	0.00
020	Secured	0.00	0.00
021	Unsecured	0.00	0.00
022	With significant increase in Credit Risk	0.00	0.00
023	Credit impaired	0.00	0.00
024	Less: Allowance for credit impaired loans	0.00	0.00
025	**Sub Total**	**39,080,383.37**	**35,359,145.57**
026		0.00	0.00
027	**Total**	**39,080,383.37**	**35,359,145.57**
028		0.00	0.00
029		0.00	0.00
030	**Due from Directors and Officers of the Company**	**0.00**	**0.00**
031	Directors	0.00	0.00
032	Officers	0.00	0.00
033		**0.00**	**0.00**
034	**Loans to related parties include:**	**0.00**	**0.00**
035	i)Key management personel	0.00	0.00
036	ii)Subsidiary companies	0.00	0.00
037	iii)Joint Venture companies	0.00	0.00
038	iv)Others	0.00	0.00
039		**0.00**	**0.00**
054	Other loans represent loans given to	0.00	0.00
055	a) APIIC	0.00	0.00
060		0.00	0.00
061	RPD	0.00	0.00
062	i)Key management personel	0.00	0.00
063	ii)Subsidiary companies	0.00	0.00
064	iii)Joint Venture companies	0.00	0.00
065	iv)Others	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 9 TO THE FS-NCA-LOANS

(Amount in ₹)

	As at	31.03.2020	31.03.2019
068	Total	0.00	0.00



PAKRI BARWADIH COAL MINE

NOTE NO. 10 TO THE FS-NCA-OTHER FINANCIAL ASSETS

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**Other Financial Assets (non current)**	**0.00**	**0.00**
002		0.00	0.00
003	**Share application money pending allotment in (Subsidiary Companies) :**	**0.00**	**0.00**
004	NTPC Electric Supply Company Ltd.	0.00	0.00
005	NTPC Vidyut Vyapar Nigam Ltd.	0.00	0.00
006	Nabinagar Power Generating Company Ltd.	0.00	0.00
007	Kanti Bijlee Utpadan Nigam Ltd.	0.00	0.00
008	Bhartiya Rail Bijlee Company Ltd.	0.00	0.00
009	Patratu Vidyut Utpadan Nigam Ltd.	0.00	0.00
010	NTPC Mining Limited	0.00	0.00
011	THDC Ltd.	0.00	0.00
012	NEEPCO Ltd.	0.00	0.00
013		0.00	0.00
014	**Total**	**0.00**	**0.00**
015	**Share application money pending allotment (Joint Venture)**	**0.00**	**0.00**
016	Utility Powertech Ltd.	0.00	0.00
017	NTPC GE Power Services Pvt.Ltd.	0.00	0.00
018	NTPC-SAIL Power Company Ltd.	0.00	0.00
019	NTPC-Tamil Nadu Energy Company Ltd.	0.00	0.00
020	Ratnagiri Gas & Power Private Ltd.	0.00	0.00
021	Aravali Power Company Private Ltd.	0.00	0.00
022		0.00	0.00
023	NTPC BHEL Power Projects Private Ltd.	0.00	0.00
024	Meja Urja Nigam Private Limited	0.00	0.00
025	BF-NTPC Energy Systems Ltd.	0.00	0.00
026	Anushakti Vidhyut Nigam Ltd.	0.00	0.00
027	Nabinagar Power Generating Company Ltd.	0.00	0.00
028	Energy Efficiency Services Ltd.	0.00	0.00
029	National High Power Test Labortory Private Ltd.	0.00	0.00
030		0.00	0.00
031	CIL NTPC Urja Private Ltd.	0.00	0.00
032	Trincomalee Power Company Ltd.	0.00	0.00
033	Hindustan Urvarak & Rasayan Limited	0.00	0.00
034	Bangladesh-India Friendship Power Company Private Ltd.	0.00	0.00
035	**Sub Total**	**0.00**	**0.00**
036		0.00	0.00
037	Claims Recoverable	0.00	0.00
038	Finance Lease Recoverable	0.00	0.00
039	Mine Closure Deposit	269,525,630.00	192,334,854.00
040		0.00	0.00
041	**Total**	**269,525,630.00**	**192,334,854.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 11 TO THE FS-NCA-OTHER NON-CURRENT ASSETS

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**Other Non-current Assets**	**0.00**	**0.00**
002		**0.00**	**0.00**
003	**CAPITAL ADVANCES**	**0.00**	**0.00**
004	Secured	0.00	0.00
005	Unsecured	0.00	0.00
006	Covered by Bank Guarantee	863,174,997.69	533,611,959.09
007	Others	1,772,880,547.96	2,070,702,037.56
008	Considered doubtful	0.00	0.00
009	Less: Allowance for bad & doubtful advances	0.00	0.00
010	**Sub-Total**	**2,636,055,545.65**	**2,604,313,996.65**
011		0.00	0.00
012	Advances other than capital advances	0.00	0.00
013	Security deposits	32,950.00	10,989,835.00
019	Advances to Related parties	0.00	0.00
022	**Advances to Contractors & Suppliers**	**0.00**	**0.00**
023	Secured	0.00	0.00
024	Unsecured	0.00	0.00
025	Considered Doubtful	0.00	0.00
026	Less: Allowance for bad & doubtful advances	0.00	0.00
027	**Sub Total**	**32,950.00**	**10,989,835.00**
039	Advance tax & tax deducted at source	2,146,560.00	0.00
040	Less:- Provision for current tax	0.00	0.00
041		0.00	0.00
042	**Sub Total**	**2,146,560.00**	**0.00**
043	Deferred Payroll Expenses (Secured)	6,142,121.15	6,365,536.49
044	Deferred Payroll Expenses (Unsecured)	7,218,717.33	6,623,501.19
045	**Sub Total**	**13,360,838.48**	**12,989,037.68**
046	Deferred Foreign Currency Fluctuation Asset	0.00	0.00
048	**Total**	**2,651,596,914.13**	**2,628,292,869.33**
049		0.00	0.00
050		0.00	0.00
051	Advances include amount due from the following Private Companies in which Directors of the Company are also Directors in such Companies	0.00	0.00
063		0.00	0.00
064	NTPC GE Power Services Pvt Ltd.	0.00	0.00
065		0.00	0.00
066	Ratnagiri Gas & Power Private Ltd.	0.00	0.00
067	Aravali Power Company Private Ltd.	0.00	0.00
068	NTPC-SCCL Global Ventures Private Ltd.	0.00	0.00
069	NTPC BHEL Power Projects Private Ltd.	0.00	0.00
070	Meja Urja Nigam Private Limited	0.00	0.00
071	Nabinagar Power Generating Company Ltd.	0.00	0.00
072	National High Power Test Laboratory Private Ltd.	0.00	0.00
074	CIL NTPC Urja Private Ltd.	0.00	0.00
076		0.00	0.00
077	**Related Party (Adv)**	**0.00**	**0.00**

Locked: 17.05.2020 - 13:27:54

Run on: 17.05.2020 - 13:31:04 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 11 TO THE FS-NCA-OTHER NON-CURRENT ASSETS (Amount in ₹)

	As at	31.03.2020	31.03.2019
078	Key Management personel	0.00	0.00
079	Subsidiary companies	0.00	0.00
080	Joint Venture companies	0.00	0.00
081	Contractors	0.00	0.00
082	Others	0.00	0.00
084		0.00	0.00
085	**Total**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 12 TO THE FS-CA-INVENTORIES

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**INVENTORIES**	**0.00**	**0.00**
002		**0.00**	**0.00**
003	Coal	221,523,606.05	295,835,416.14
004	Fuel oil	0.00	0.00
005	Naphtha	0.00	0.00
006	Stores and spares	150,687.22	0.00
007	Chemicals & consumables	211,771.00	0.00
008	Loose tools	0.00	0.00
009	Steel Scrap	0.00	0.00
010	Others*	1,260,962.75	0.00
011	**Sub Total**	**223,146,927.02**	**295,835,416.14**
012	Less: Provision for shortages	0.00	18,518,809.80
013	Less: Provision for obsolete/ unservicable/dimunition in value of surplus inventory	0.00	0.00
014		0.00	0.00
015	**Total**	**223,146,927.02**	**277,316,606.34**
016	**Inventories include material in transit**	**0.00**	**0.00**
017	Coal	0.00	0.00
018	Fuel oil	0.00	0.00
019	Naphtha	0.00	0.00
020	Stores and spares	0.00	0.00
021	Chemicals & consumables	0.00	0.00
022	Loose tools	0.00	0.00
023	Others	0.00	0.00
024		**0.00**	**0.00**
025	Inventory items other than steel scrap have been valued considering Note 1. Steel scrap has been valued at estimated realisable value.	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 13 TO THE FS-CA-INVESTMENTS

(Amount in ₹)

	As at	No. of shares	Face value	31.03.2020	31.03.2019
001	**CURRENT INVESTMENTS**			**0.00**	**0.00**
002	**(Valuation as per Note 1)**			**0.00**	**0.00**
003				0.00	0.00
033	Investment in Mutual Funds (Details as under)			0.00	0.00
034	SBI Magnum Insta Cash Fund-DDR			0.00	0.00
035	SBI Premier Liquid Fund Super-IP-DDR			0.00	0.00
036	SBI-SHF Ultra Short Term Fund-IP-DDR			0.00	0.00
037	UTI Money Market-IP-Direct-Growth			0.00	0.00
038	IDBI-Liquid plan- Direct-Growth			0.00	0.00
039	Canara Robeco Liquid Fund Super-IP-DDR			0.00	0.00
040	Canara Robeco Treasury Advantage Fund Super-IP-DDR			0.00	0.00
041	IDBI Liquid Fund-DDR			0.00	0.00
042	SBI Premier Liquid fund-Direct DDR (Ash Fund)			0.00	0.00
043	UTI Liquid CashPlan - IP - DDR (Ash Funds)			0.00	0.00
044	IDBI Liquid Fund - DDR - (Ash Funds)			0.00	0.00
045				0.00	0.00
046	**Sub Total**			**0.00**	**0.00**
047				**0.00**	**0.00**
052	**Unquoted Investments**			**0.00**	**0.00**
054				0.00	0.00
066	**TOTAL**			**0.00**	**0.00**
067				0.00	0.00



Locked: 17.05.2020 - 13:27:54

Run on: 17.05.2020 - 13:31:07 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 14 TO THE FS-CA-TRADE RECEIVABLES (Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**TRADE RECEIVABLES (current)***	**0.00**	**0.00**
002		0.00	0.00
003	Secured,Considered Good	0.00	0.00
004	Unsecured , considered good	783,355,093.53	0.00
005	With significant increase in Credit Risk	0.00	0.00
006	Credit impaired	0.00	0.00
007	**Sub-Total**	**783,355,093.53**	**0.00**
008	**Total**	**783,355,093.53**	**0.00**
009	Less: Allowance for credit impaired receivables	0.00	0.00
010	**Total**	**783,355,093.53**	**0.00**
011		**0.00**	**0.00**
013	* After adjustment for Unbilled Revenue	0.00	0.00
014	Long-term trade receivables	0.00	0.00
015		0.00	0.00
016		**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 15 TO THE FS-CA-CASH AND CASH EQUIVALENTS (Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**CASH & BANK BALANCES**	**0.00**	**0.00**
002	**Cash & Cash Equivalents**	**0.00**	**0.00**
003	Balances with Banks	1,577,126.89	928,131.07
004	Cheques & Drafts on hand	0.00	0.00
005	Cash on hand	0.00	0.00
006	Others (stamps in hand)	0.00	0.00
007	Bank deposits with original maturity upto three months	0.00	0.00
008	Balances with RBI	0.00	0.00
009		0.00	0.00
010	**Total**	**1,577,126.89**	**928,131.07**

PAKRI BARWADIH COAL MINE

NOTE NO. 16 TO THE FS-CA-BANK BALANCES OTHER THAN CASH AND CASH EQUIVALENTS (Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**Other Bank Balances**	**0.00**	**0.00**
002	Deposits with original maturity of more than three months but not more than twelve months	0.00	0.00
003	Earmarked balances with banks*	0.00	0.00
004	**SubTotal**	**0.00**	**0.00**
005	Interest accrued on deposits	0.00	0.00
006		0.00	0.00
007	**Total**	**0.00**	**0.00**
008		0.00	0.00
009	**Earmarked balances with banks consist of :**	**0.00**	**0.00**
010	Unpaid dividend account balance	0.00	0.00
011	Towards public deposit repayment reserve	0.00	0.00
012	Towards redemption of bonds due for repayment within one year	0.00	0.00
013	Security with Government/other authorities	0.00	0.00
014	Unpaid refund/interest account balance - Tax free bonds/ Bonus Debentures	0.00	0.00
015	Earmarked for RGGVY/DDUGJY/SAUBHAGYA Fund	0.00	0.00
016	Earmarked for Flyash Utilisation Reserve Fund	0.00	0.00
017	Deposits with original maturity upto three months as per court orders	0.00	0.00
018	Payment Security Scheme of MNRE NSM (NTPC)	0.00	0.00
019	Payment Security Scheme of MNRE NSM (NVVN)	0.00	0.00
020	Enforcement Directorate of Solar Plant(NVVN)	0.00	0.00
021	Bank guarantee Fund of MNRE (NVVN)	0.00	0.00
022	Others	0.00	0.00
023		0.00	0.00
024	**Total**	**0.00**	**0.00**
025		0.00	0.00
026	Bank deposits with original maturity of less than three months- other than earmarked	0.00	0.00
027	Bank deposits with original maturity of more than three months but not more than twelve months- other than earmarked	0.00	0.00
028	Earmarked bank balances (current account)	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 17 TO THE F5-CA-LOANS

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**Current financial assets - Loans**	**0.00**	**0.00**
002	**Loans (current)-including interest accrued**	**0.00**	**0.00**
004	**Related Parties**	**0.00**	**0.00**
005	Secured	0.00	0.00
006	Un-Secured	0.00	0.00
007	With significant increase in Credit Risk	0.00	0.00
008	Credit impaired	0.00	0.00
009		**0.00**	**0.00**
010	**Employees**	**0.00**	**0.00**
011	Secured	3,134,785.71	3,148,219.00
012	Unsecured	18,633,330.48	15,726,895.97
013	With significant increase in Credit Risk	0.00	0.00
014	Credit impaired	0.00	0.00
015	Less : Employee Loans Discounting	0.00	0.00
016	**Loan to State Government in settlement of dues from customers (Unsecured)**	**0.00**	**0.00**
017		0.00	0.00
018	**Others**	**0.00**	**0.00**
019	Secured	0.00	0.00
020	Unsecured	0.00	0.00
021	With significant increase in Credit Risk	0.00	0.00
022	Credit impaired	0.00	0.00
023		**0.00**	**0.00**
024	Less: Allowance for credit impaired loans	0.00	0.00
025	**Total (Loans)**	**21,658,116.19**	**18,875,114.97**
026		**0.00**	**0.00**
027	**Due from Directors and Officers of the Company**	**0.00**	**0.00**
028	Directors	0.00	0.00
029	Officers	0.00	0.00
030		**0.00**	**0.00**
031	**Loans to related parties include:**	**0.00**	**0.00**
032	i)Key management personel	0.00	0.00
033	ii)Subsidiary companies	0.00	0.00
034	KBUNL	0.00	0.00
035	PVUNL	0.00	0.00
036	NVVN	0.00	0.00
037	iii)Joint Venture companies	0.00	0.00
038	iv)others	0.00	0.00
039		0.00	0.00
059	RPD	0.00	0.00
060	i)Key management personel	0.00	0.00
061	ii)Subsidiary companies	0.00	0.00
062	iii)Joint Venture companies	0.00	0.00
063	iv)Others	0.00	0.00
064		0.00	0.00
065	**Total**	**0.00**	**0.00**

Locked: 17.05.2020 - 13:27:55

Run on: 17.05.2020 - 13:31:12 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 18 TO THE FS-CA-OTHER FINANCIAL ASSETS

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**Other Financial Assets (current)**	**0.00**	**0.00**
002		0.00	0.00
003	**ADVANCES**	**0.00**	**0.00**
004		**0.00**	**0.00**
005	**Related Parties**	**0.00**	**0.00**
006	Secured	0.00	0.00
007	Un-Secured	-70,844.06	-29,995.43
008	Considered doubtful	0.00	0.00
009		**0.00**	**0.00**
010	**Employees**	**0.00**	**0.00**
012	Unsecured	2,554,572.00	3,564,725.00
013	Considered Doubtful	0.00	0.00
014		**0.00**	**0.00**
020	**Others**	**0.00**	**0.00**
021	Secured	0.00	0.00
022	Unsecured	0.00	0.00
023	Considered Doubtful	0.00	0.00
024		**0.00**	**0.00**
025	Less: Allowance for bad & doubtful advances	0.00	0.00
026		**0.00**	**0.00**
033	**Total (Advances)**	**2,483,727.94**	**3,534,729.57**
044		**0.00**	**0.00**
045	**Claims Recoverable**	**0.00**	**0.00**
046	Secured	0.00	0.00
047	Unsecured, considered good	0.00	0.00
048	Considered Doubtful	0.00	0.00
049	Less:- Allowance for doubtful claims	0.00	0.00
050	Others-Claims Recoverable	0.00	0.00
051		**0.00**	**0.00**
052	Unbilled Revenue	0.00	0.00
053	Hedging cost recoverable from beneficiaries	0.00	0.00
054	Derivative MTM Asset	0.00	0.00
055	Finance Lease Receivable	0.00	0.00
056	Mine Closure Deposit	0.00	0.00
057	Others*	0.00	0.00
058	Receivable from MCP Escrow A/c	244,500,000.00	0.00
059	**Total**	**246,983,727.94**	**3,534,729.57**
060		0.00	0.00
062	* Other include amount recoverable from contractors and other parties towards hire charges, rent/electricity etc.	0.00	0.00
063		0.00	0.00
067		**0.00**	**0.00**
068	**Advances to related parties include:**	**0.00**	**0.00**
069	i)Key management personel	0.00	0.00
070	ii)Subsidiary companies	0.00	0.00
071	iii)Joint Venture companies	0.00	0.00

Locked: 17.05.2020 - 13:27:55
Run on: 17.05.2020 - 13:31:14 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 18 TO THE FS-CA-OTHER FINANCIAL ASSETS **(Amount in ₹)**

	As at	31.03.2020	31.03.2019
072	iv)Contractors	0.00	0.00
073	v)Others	0.00	0.00
074		**0.00**	**0.00**
075	Advances include amount due from the following Private Companies in which Directors of the Company are also Directors in such Companies	0.00	0.00
076		**0.00**	**0.00**
077		0.00	0.00
078	NTPC GE Power Services Pvt Ltd.	0.00	0.00
079	Ratnagiri Gas & Power Private Ltd.	0.00	0.00
080	Aravali Power Company Private Ltd.	0.00	0.00
081	NTPC-SCCL Global Ventures Private Ltd.	0.00	0.00
082	NTPC BHEL Power Projects Private Ltd.	0.00	0.00
083	Meja Urja Nigam Private Limited	0.00	0.00
084	Nabinagar Power Generating Company Ltd.	0.00	0.00
085	National High Power Test Labortory Private Ltd.	0.00	0.00
086	International Coal Ventures Private Ltd.	0.00	0.00
087	CIL NTPC Urja Private Ltd.	0.00	0.00
089	Bangladesh-India Friendship Power Co. Pvt.Ltd	0.00	0.00
090		**0.00**	**0.00**
091	Related Party (Adv)- Employee	0.00	0.00
092	Related Party (Adv)- Subsidiaries	0.00	0.00
093	Related Party (Adv)- Joint Ventures	0.00	0.00
094	Related Party (Adv)- Contractors	0.00	0.00
095	Related Party (Adv)- Others	-70,844.06	-29,995.43
096	**Total**	**-70,844.06**	**-29,995.43**

PAKRI BARWADIH COAL MINE

NOTE NO. 19 TO THE FS-CA-OTHER CURRENT ASSETS

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**OTHER CURRENT ASSETS**	**0.00**	**0.00**
002	Security Deposits (Unsecured)	0.00	0.00
003	Deposit with Customs, port trust & others*	65,635,288.00	48,946,884.00
004	**ADVANCES**	**0.00**	**0.00**
005		**0.00**	**0.00**
006	**Related Parties**	**0.00**	**0.00**
007	Secured	0.00	0.00
008	Un-Secured	0.00	0.00
009	Considered doubtful	0.00	0.00
010		**0.00**	**0.00**
011	**Employees(including imprest)**	**0.00**	**0.00**
012	Secured	0.00	0.00
013	Unsecured	1,072,541.00	313,188.00
014	Considered Doubtful	0.00	0.00
015		**0.00**	**0.00**
016	**Contractors & Suppliers**	**0.00**	**0.00**
017	Secured	0.00	0.00
018	Unsecured	393,430,156.00	193,680,295.39
019	Considered Doubtful	0.00	0.00
020		0.00	0.00
021	**Others****	**0.00**	**0.00**
022	Secured	0.00	0.00
023	Unsecured	1,703,120.00	555,360.00
024	Considered Doubtful	0.00	0.00
025		**0.00**	**0.00**
026	Less: Allowance for bad & doubtful advances	0.00	0.00
027	Deferred Payroll Expenses (Secured)	668,222.76	670,716.39
028	Deferred Payroll Expenses (Unsecured)	1,569,144.53	1,492,086.95
029	**Sub-total**	**2,237,367.29**	**2,162,803.34**
030	**Interest accrued on :**	**0.00**	**0.00**
031	Advances to contractors	1,602,923.00	1,602,923.00
032		**0.00**	**0.00**
033	**Claims Recoverable**	**0.00**	**0.00**
034	Secured	0.00	0.00
035	Unsecured, considered good	0.00	5,858,160.00
036	Considered Doubtful	0.00	0.00
037	Less:- Allowance for doubtful claims	0.00	0.00
038		**0.00**	**0.00**
039	Deferred premium on forward exchange contract/ Option Assets	0.00	0.00
041	Assets Held for Disposal	0.00	0.00
042	Others	1,076,237.00	0.00
043		0.00	0.00
044	**Total (Other Current Assets)**	**466,957,630.38**	**253,431,612.73**
045	**Include Prepaid Expenses	0.00	0.00
046	*Includes sales tax/Entry tax/VAT deposited under protest with Sales Tax Authorities	0.00	0.00

Locked: 17.05.2020 - 13:27:55

Run on: 17.05.2020 - 13:31:15 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 19 TO THE FS-CA-OTHER CURRENT ASSETS (Amount in ₹)

	As at	31.03.2020	31.03.2019
047	*Includes deposited with courts	0.00	0.00
048	*Includes deposited with LIC for annuity payments	30,706,666.00	48,299,903.00
049	* Includes deposits with WRD / against BG in r/o finance lease	0.00	0.00
050	Other include amount recoverable from contractors and other parties towards hire charges, rent/electricity etc.	0.00	0.00
052	**Advances to related parties include:**	**0.00**	**0.00**
053	i)Key management personel	0.00	0.00
054	ii)Subsidiary companies	0.00	0.00
055	iii)Joint Venture companies	0.00	0.00
056	Contractors	0.00	0.00
057	Others	0.00	0.00
058		0.00	0.00
059	Advances include amount due from the following Private Companies in which Directors of the Company are also Directors in such Companies	0.00	0.00
060		**0.00**	**0.00**
061		0.00	0.00
062	Related Party (Adv)- Employee	0.00	0.00
063	Related Party (Adv)- Subsidiaries	0.00	0.00
064	Related Party (Adv)- Joint Venture	0.00	0.00
065	Related Party (Adv)- Contractors	0.00	0.00
066	Related Party (Adv)- Others	0.00	0.00
067	Total	**0.00**	**0.00**
068		0.00	0.00



PAKRI BARWADIH COAL MINE

NOTE NO. 20 TO THE FS--REGULATORY DEFERRAL ACCOUNT DEBIT BALANCES (Amount in ₹)

	As at	31.03.2020	31.03.2019
001	On account of Exchange Differences	0.00	0.00
002	On account of employee benefit exp	0.00	0.00
003	Regulatory deferred account - deferred	0.00	0.00
004	Deferred asset for ash transportation	0.00	0.00
005		0.00	0.00
006	**Total**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 21 TO THE FS-EQUITY-EQUITY SHARE CAPITAL

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**SHARE CAPITAL**	**0.00**	**0.00**
002	**Equity Share Capital**	**0.00**	**0.00**
003	**Authorised**	**0.00**	**0.00**
004	10,000,000,000 equity shares of Rs.10/- each (Previous year 10,000,000,000 eq shares of Rs.10/- each)	0.00	0.00
005	**Issued,Subscribed and fully Paid-up**	**0.00**	**0.00**
006	9,894,557,280 equity shares of Rs.10/- (Pv. Year 9,894,557,280 equity shares of Rs.10/- each)	0.00	0.00
007		**0.00**	**0.00**
008	**Total**	**0.00**	**0.00**
009	During FY 2018-19, the company has issued 1,649,092,880 equity shares of Rs.10/- each as fully paid bonus shares	0.00	0.00
010	The holders of the equity shares are entitled to receive dividends as declared from time to time, and are entitled to one vote per share at meetings of the company.	0.00	0.00
011	Details of shareholders holding more than 5% shares in the company	0.00	0.00
012	- President of India	0.00	0.00
013	No. of Shares	0.00	0.00
014	% of holding	0.00	0.00
015	- Life Insurance Corporation of India/ICICI Prudential Mutual Fund	0.00	0.00
016	No. of Shares	0.00	0.00
017	% of holding	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 22 TO THE FS-EQUITY-OTHER EQUITY

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	RESERVE AND SURPLUS	0.00	0.00
002		0.00	0.00
003	**Capital Reserve**	0.00	0.00
004	As per last financial statements	0.00	0.00
006	Add : Grants received during the year	0.00	0.00
007	Add: Transfer from Surplus	0.00	0.00
008	Less: Write back during the year/period	0.00	0.00
009	Less: Adjustments during the year/period	0.00	0.00
010	**Sub-Total**	0.00	0.00
011	**Securities Premium Account**	0.00	0.00
012	As per last financial statements	0.00	0.00
013	Add: Additions during the year/period	0.00	0.00
014	Less: Adjustments during the year/period	0.00	0.00
015	**Sub-Total**	0.00	0.00
016	**Bonds Redemption Reserve**	0.00	0.00
017	As per last financial statements	0.00	0.00
018	Add: Transfer from Surplus	0.00	0.00
019	Less: Transfer to surplus on redemption	0.00	0.00
020	Less: Adjustments during the year/ period	0.00	0.00
021	**Sub-Total**	0.00	0.00
022	**Share Application money Allotment**	0.00	0.00
023	As per last financial statements	0.00	0.00
024	Add: Addition during the year	0.00	0.00
025	Less: Utilised for allotment during the year	0.00	0.00
026	Less: Adjustments during the year/ period	0.00	0.00
027	**Sub-Total**	0.00	0.00
028	**Fly-ash utilisation reserve Fund**	0.00	0.00
029	As per last financial statements	0.00	0.00
030	Transfered to CC	0.00	0.00
031	Add:Transfer from revenue from operations	0.00	0.00
032	Add:Transfer from other income	0.00	0.00
033	Less: Utilised during the year	0.00	0.00
034	Tangible assets	0.00	0.00
035	Employee benefit expenses	0.00	0.00
036	Generation,admn. and other expenses	0.00	0.00
037	Tax Expenses	0.00	0.00
038	**Sub-Total**	0.00	0.00
039	**Corporate social responsibility (CSR) reserve**	0.00	0.00
040	As per last financial statements	0.00	0.00
041	Add : Transfer from surplus	0.00	0.00
042	Less: Write back during the year	0.00	0.00
043	**Sub-Total**	0.00	0.00
044	**General Reserve**	0.00	0.00
045	As per last financial statements	0.00	0.00
046	Add: Transfer from Surplus	0.00	0.00
047	Less: Transfer to Surplus	0.00	0.00

पवन देव जमरा/PAWAN DEV JAMTA

LockId: 17.05.2020 - 13:27:54
Run on: 17.05.2020 - 13:31:20 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 22 TO THE FS-EQUITY-OTHER EQUITY

(Amount in ₹)

	As at	31.03.2020	31.03.2019
048	Less: Write back during the year /period	0.00	0.00
049	Less: Adjustments during the year /period	0.00	0.00
050	**Sub-Total**	**0.00**	**0.00**
051		**0.00**	**0.00**
052	**Retained earnings**	**0.00**	**0.00**
053	As per last financial statements	-86,051,086.50	-270,291,909.37
054	Add(Less):-Changes in accounting policy / prior period errors	0.00	0.00
055	Add(Less):-Profit (Loss) after tax for the year from Statement of Profit & Loss	970,584,381.05	184,240,822.87
056		0.00	0.00
057	Add: Write back from Bond Redemption Reserve	0.00	0.00
058	Add: Write back from Capital Reserve	0.00	0.00
059	Add: Write back from Foreign Project Reserve	0.00	0.00
060	Add: Write back from CSR Reserve	0.00	0.00
061	Add: Write back from General Reserve	0.00	0.00
062	Less: Transfer to Bonds Redemption Reserve	0.00	0.00
063	Less: Transfer to Foreign Project Reserve	0.00	0.00
064	Less:Transfer to Capital Reserve	0.00	0.00
065	Less:Transfer to CSR Reserve	0.00	0.00
066	Less:Transfer to General Reserve	0.00	0.00
067	Less:Interim Dividend Paid	0.00	0.00
068	Less:Tax on Interim Dividend Paid	0.00	0.00
069	Less:Final Dividend Paid	0.00	0.00
070	Less:Tax on Final Dividend Paid	0.00	0.00
071	Less: Issue of bonus debenture	0.00	0.00
072	Less: Tax on issue of bonus debenture	0.00	0.00
073	**Sub-Total**	**884,533,294.55**	**-86,051,086.50**
074		0.00	0.00
075	**Remeasurement of defined benefit plans**	**0.00**	**0.00**
076	As per last financial statements	-635,429.38	-635,429.38
077	Add/(Less):- Actuarial Gains/loss through OCI	-7,595,519.80	0.00
078	**Sub-Total**	**-8,230,949.18**	**-635,429.38**
080		0.00	0.00
081	**FVTOCI Reserve**	**0.00**	**0.00**
082	As per last financial statements	0.00	0.00
083	Add(Less):-Net gain/loss of equity instruments through OCI	0.00	0.00
084	**Sub-Total**	**0.00**	**0.00**
085		**0.00**	**0.00**
086	**Total Other equity**	**876,302,345.37**	**-86,686,515.88**

NOTE NO. 23 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**LONG TERM BORROWINGS**	**0.00**	**0.00**
002	**Bonds**	**0.00**	**0.00**
003	**Secured**	**0.00**	**0.00**
004	7.37 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2035 (Fifty Sixth Issue - Public Issue - Series 3A).	0.00	0.00
005	7.62 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2035 (Fifty Sixth Issue - Public Issue - Series 3 B).	0.00	0.00
006	8.61% Tax free secured non-cumulative non-convertible redeemable bonds of ₹ 10,00,000/- each redeemable at par in full on 4th March 2034 (Fifty First Issue C - Private Placement)	0.00	0.00
007	8.66% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2033 (Fiftieth Issue - Public Issue - Series 3A)	0.00	0.00
008	8.91% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2033 (Fiftieth Issue - Public Issue - Series 3B)	0.00	0.00
009	7.37% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 14th December 2031 (Sixty Sixth Issue - Private Placement)	0.00	0.00
010	7.49% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 7th November 2031 (Sixty Fourth Issue - Private Placement)	0.00	0.00
011	7.28 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2030 (Fifty Sixth Issue - Public Issue - Series	0.00	0.00

	As at	31.03.2020	31.03.2019
	2A)		
012	7.53 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2030 (Fifty Sixth Issue - Public Issue - Series 2 B).	0.00	0.00
013	7.93% Secured non-cumulative non-convertible redeemable taxable bonds of ` 10,00,000/- each redeemable at par in full on 03 May 2022 (68th Issue - Private Placement)	0.00	0.00
014	8.63% Tax free secured non-cumulative non-convertible redeemable bonds of ₹ 10,00,000/- each redeemable at par in full on 4th March 2029 (Fifty First Issue B - Private Placement)	0.00	0.00
015	8.30% Secured non-cumulative non-convertible redeemable taxable bonds of Rs 10,00,000/- each redeemable at par in full on 15 January 2029 (Sixty Seventh Issue - Private Placement)	0.00	0.00
016	8.48% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2028 (Fiftieth Issue - Public Issue - Series 2A)	0.00	0.00
017	8.73% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2028 (Fiftieth Issue - Public Issue - Series 2B)	0.00	0.00
018	7.47% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 16th September 2026 (Sixty Third Issue - Private Placement)	0.00	0.00
019	7.58% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 23rd August 2026 (Sixty Second Issue - Private Placement)	0.00	0.00

PAWAN DEV JAMTA

	As at	31.03.2020	31.03.2019
020	8.05% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 5th May 2026 (Sixtieth Issue - Private Placement)	0.00	0.00
021	8.19% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 15th December 2025 (Fifty Seventh Issue - Private Placement)	0.00	0.00
022	7.11 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2025 (Fifty Sixth Issue - Public Issue - Series 1A).	0.00	0.00
023	7.36 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2025 (Fifty Sixth Issue - Public Issue - Series 1 B).	0.00	0.00
024	7.15% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of Rs. 10,00,000/- each redeemable at par in full on 21st August 2025 (Fifty Fifth Issue - Private Placement)	0.00	0.00
025	9.17% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 22nd September 2024 (53rd Issue - private placement).	0.00	0.00
026	9.34% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 24th March 2024 (Fifty Second Issue - private placement)	0.00	0.00
027	8.19% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 10,00,000/- each redeemable at par in full on 4th March 2024 (Fifty First Issue A - Private Placement)	0.00	0.00

(Amount in ₹)

	As at	31.03.2020	31.03.2019
028	8.41% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2023 (Fiftieth Issue - Public Issue - Series 1A)	0.00	0.00
029	8.66% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2023 (Fiftieth Issue - Public Issue - Series 1B)	0.00	0.00
030	9.25% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each with five equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 11th year and in annual installments thereafter upto the end of 15th year respectively commencing from 4th May 2023 and ending on 4th May 2027 (Forty fourth issue - private placement)VII	0.00	0.00
031	8.48% Secured non-cumulative non-nonvertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 1st May 2023 (Seventeenth issue - private placement)I	0.00	0.00
032	8.80% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4th April 2023 (Forty ninth issue -private placement	0.00	0.00
033	8.49% Secured non-cumulative non-convertible redeemable taxable fully paid-up bonus debentures of Rs. 12.50 each redeemable at par in three annual installments of Rs. 2.50, Rs. 5.00 and Rs. 5.00 at the end of 8th year, 9th year and 10th year on 25th March 2023, 25th March 2024 and 25th March 2025 respectively (Fifty Fourth Issue -Bonus Debentures)X - (refer Note 5 d)	0.00	0.00
034	8.73% Secured non-cumulative non-convertible redeemable taxable bonds of	0.00	0.00

Locked: 17.05.2020 - 13:27:54
Run on: 17.05.2020 - 13:31:22 Version: 0
867
Page 4 of 13

	As at	31.03.2020	31.03.2019
	₹ 10,00,000/- each redeemable at par in full on 07th March 2023 (Forty eighth issue - private placement)		
035	9.00% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each with five equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 11th year and in annual installments thereafter upto the end of 15th year respectively commencing from 25th January 2023 and ending on 25th January 2027 (Forty second issue- private placement)III	0.00	0.00
036	8.84% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4th October 2022 (Forty seventh issue- private placement)VII	0.00	0.00
037	7.32% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 17 July 2029 (Sixty Ninth Issue - Private Placement)	0.00	0.00
038	6.72% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 24th November 2021 (Sixty Fifth Issue - Private Placement)	0.00	0.00
039	8.10% Secured Non-Cumulative Non-Convertible Redeemable Taxable Bonds of Rs. 30,00,000/- each redeemable at par in three equal separately transferable redeemable principal parts (STRPP) at the end of 5th year, 10th year & 15th year on 27th May 2021, 27th May 2026 and 27th May 2031 respectively (Sixty First Issue- Private Placement)	0.00	0.00
040	8.33% Secured non-cumulative non-convertible redeemable taxable bonds of Rs.10,00,000/- each redeemable at par in full on 24th February 2021	0.00	0.00

	As at	31.03.2020	31.03.2019
	(Fifty Ninth Issue - Private Placement).		
042	8.93% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 19th january 2021 Thirty seventh issue - private placement)III	0.00	0.00
043	8.18% Secured non-cumulative non-convertible redeemable taxable bonds of Rs.10,00,000/- each redeemable at par in full on 31st December 2020 (Fifty Eight Issue - Private Placement)	0.00	0.00
044	8.73 % Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 31st March 2020 (Thirty third issue- private placement)III	0.00	0.00
045	8.78 % Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 9th March 2020 (Thirty first issue- private placement)III	0.00	0.00
046	11.25% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in five equal annual installments commencing from 6th Nov 2019 and ending on 6th Nov 2023 (Twenty seventh issue - private placement)III	0.00	0.00
047	7.89% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 5th May 2019 (Thirtieth issue - private placement)III	0.00	0.00
048	8.65% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4th February 2019 (Twenty ninth issue - private placement)III	0.00	0.00
049	7.50% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full	0.00	0.00

	As at	31.03.2020	31.03.2019
	on 12th January 2019 (Nineteenth issue - private placement)II		
050	11% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 21st November 2018 (Twenty eighth issue - private placement)III	0.00	0.00
051	9.3473% Secured non-cumulative non-convertible redeemable taxable bonds of ₹15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 20th July 2018 and ending on 20th July 2032 (Forty sixth issue - private placement)VII	0.00	0.00
052	9.4376% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 16th May 2018 and ending on 16th May 2032 (Forty fifth issue - private placement)VII	0.00	0.00
053	8.00% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 10th April 2018 (Sixteenth issue -private placement)I	0.00	0.00
054	9.2573% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 2nd March 2018 and ending on 2nd March 2032 (Forty third issue - private placement)III	0.00	0.00
055	9.6713% Secured non-cumulative non-convertible redeemable taxable bonds	0.00	0.00

	As at	31.03.2020	31.03.2019
	of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 23rd December 2017 and ending on 23rd December 2031 (Forty first issue - private placement)III		
056	9.558% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 29th July 2017 and ending on 29th July 2031(Fourtieth issue-private placement)III	0.00	0.00
057	9.3896% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 9th June 2017 and ending on 9th June 2031(Thirty ninth issue-private placement)III	0.00	0.00
058	9.17% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 22nd March 2017 and ending on 22nd March 2031(Thirty eighth issue-private placement)III	0.00	0.00
059	8.8086% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th	0.00	0.00

PANKAJ DEV JAMTA

	As at	31.03.2020	31.03.2019
	year and in annual installments thereafter upto the end of 20th year respectively commencing from 15th December 2016 and ending on 15th December 2030 (Thirty sixth issue - private placement)III		
060	8.785% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 15th September 2016 and ending on 15th September 2030 (Thirty fifth issue - private placement)III	0.00	0.00
061	8.71% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 10th June 2016 and ending on 10th June 2030 (Thirty fourth issue - private placement)III	0.00	0.00
062	8.8493% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 25th March 2016 and ending on 25th March 2030 (Thirty second issue - private placement)III	0.00	0.00
063	9.37% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 70,00,000/- each with fourteen separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 4th June 2012 and ending on 4th December 2018 (Twenty fifth issue -	0.00	0.00

	As at	31.03.2020	31.03.2019
	private placement)III		
065	9.06% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 70,00,000/- each with fourteen separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 4th June 2012 and ending on 4th December 2018 (Twenty sixth issue - private placement)III	0.00	0.00
066	8.6077% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 9th September 2011 and ending on 9th March 2021 (Twenty fourth issue - private placement)IV	0.00	0.00
067	8.3796% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 5th August 2011 and ending on 5th February 2021 (Twenty third issue - private placement)IV	0.00	0.00
068	8.1771% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 2nd July 2011 and ending on 2nd January 2021 (Twenty second issue - private placement)IV	0.00	0.00
069	7.7125% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 2nd August 2010 and ending on 2nd February 2020 (Twenty first issue - private placement)IV	0.00	0.00
070	7.552% Secured non-cumulative non-convertible redeemable taxable bonds	0.00	0.00

	As at	31.03.2020	31.03.2019
	of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 23rd September 2009 and ending on 23rd March 2019 (Twentieth issue - private placement)VI		
071	9.55% Secured non-cumulative non-convertible taxable redeemable bonds of ₹ 10,00,000/- each with ten equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of the 6th year and in annual installments thereafter upto the end of 15th year respectively from 30th April 2002 (Thirteenth issue - Part B - private placement)VIII	0.00	0.00
072	9.55% Secured non-cumulative non-convertible taxable redeemable bonds of ₹ 10,00,000/- each redeemable at par in ten equal annual installments commencing from the end of 6th year and upto the end of 15th year respectively from 18th April 2002 (Thirteenth issue -Part A - private placement)VIII	0.00	0.00
074		0.00	0.00
075		0.00	0.00
081		0.00	0.00
082	**Sub Total**	**0.00**	**0.00**
083	**Foreign Currency Notes-Unsecured**	**0.00**	**0.00**
084	4.50% Fixed Rate Notes Due for repayment on 19th March 2028	0.00	0.00
085	2.75% Fixed rate notes due for repayment on 1st February 2027	0.00	0.00
086	4.25 % Fixed rate notes due for repayment on 26th February 2026	0.00	0.00
087	4.375% Fixed Rate Note due for repayment on 26th November 2024	0.00	0.00
088	4.75 % Fixed Rate Notes due for repayment on 3rd Oct 2022	0.00	0.00
089	7.25 % Fixed green global INR denominated bonds due on 3 May 2022	0.00	0.00
090	7.375 % Fixed green global INR denominated bonds due on 10 August 2021	0.00	0.00
091	5.625% Fixed Rate Notes due for repayment on 14th July 2021	0.00	0.00

	As at	31.03.2020	31.03.2019
092	3.75 % Fixed rate notes due for repayment on 03 April 2024	0.00	0.00
093		0.00	0.00
094	**Sub Total**	**0.00**	**0.00**
095	Long term maturities of Finance Lease Obligations (Secured) IX	0.00	0.00
100	Long term maturities of Finance Lease Obligations (Unsecured) X	2,760,021,518.01	0.00
101	**Term Loans**	**0.00**	**0.00**
102	**From Banks**	**0.00**	**0.00**
103	**Secured**	**0.00**	**0.00**
104	Rupee Loans	0.00	0.00
105	**Unsecured**	**0.00**	**0.00**
106	Foreign Currency Loans	0.00	0.00
107	Rupee Loans	0.00	0.00
108	**From Others**	**0.00**	**0.00**
109	**Secured**	**0.00**	**0.00**
110	Rupee Loans	0.00	0.00
111	Foreign Currency loans (guaranteed by GOI)	0.00	0.00
112	**Unsecured**	**0.00**	**0.00**
113	Foreign Currency loans (guaranteed by GOI)	0.00	0.00
114	Other Foreign currency loans	0.00	0.00
115	Rupee Loans	0.00	0.00
116	**Deposits**	**0.00**	**0.00**
117	**Unsecured**	**0.00**	**0.00**
118	Fixed Deposits	0.00	0.00
119	**Others**	**0.00**	**0.00**
120	**Unsecured**	**0.00**	**0.00**
121	Bonds Application Money Pending Allotment	0.00	0.00
122	**Sub-total**	**0.00**	**0.00**
123	Less:- Interst accrued but not due on borrowings	0.00	0.00
124	Less - Current maturities of long term borrowings	0.00	0.00
125	Bonds-Secured	0.00	0.00
126	5.875% Fixed Rate Notes	0.00	0.00
127	Foreign currency loans from Banks- unsecured	0.00	0.00
128	Rupee loans from banks- Secured	0.00	0.00
129	Rupee loans from banks- unsecured	0.00	0.00
130	Rupee Term loan from Others - Secured	0.00	0.00
131	Foreign currency loans from others- unsecured (Guaranteed by GOI)	0.00	0.00
132	Other foreign currency loans from others- unsecured	0.00	0.00
133	Rupee loans from others- unsecured	0.00	0.00
134	Finance Lease obligations - secured	0.00	0.00
135	Finance Lease obligations - unsecured	433,388,686.03	0.00
136		0.00	0.00
137		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 23 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2020	31.03.2019
200	**Total**	**2,316,632,832.98**	**0.00**



PAKRI BARWADIH COAL MINE

NOTE NO. 24 TO THE FS-NCL-TRADE PAYABLES

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**TRADE PAYABLES(NON CURRENT)**	**0.00**	**0.00**
002	**For Goods and Services**	**0.00**	**0.00**
003	- Micro & Small Enterprises	0.00	0.00
004	- Others	322,972.78	2,268,377.91
005		0.00	0.00
006	**Total**	**322,972.78**	**2,268,377.91**

PAKRI BARWADIH COAL MINE

NOTE NO. 25 TO THE FS-NCL-OTHER FINANCIAL LIABILITIES

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**OTHER FINANCIAL LIABILITIES (NON-CURRENT)**	**0.00**	**0.00**
002	Payable for Capital Expenditure	0.00	0.00
003	- Micro & Small Enterprises	0.00	257,820.00
004	- Others	0.00	0.00
005	Others	0.00	0.00
006	Deposits from contractors and others	0.00	0.00
007		0.00	0.00
008		0.00	0.00
009	**Total**	**0.00**	**257,820.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 26 TO THE FS-NCL-PROVISIONS

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**LONG TERM PROVISIONS**	**0.00**	**0.00**
002	**Provision for Employee Benefits**	**0.00**	**0.00**
003	Opening Balance	0.00	0.00
004	Additions/ (adjustments) during the year	0.00	0.00
005	**Closing Balance**	**0.00**	**0.00**
013		**0.00**	**0.00**
014	**TOTAL**	**0.00**	**0.00**

PAWAN DEV JAMTA
NTPC LIMITED
SOC, A-8A, Sector-24, Noida-201301 (U.P.)

NOTE NO. 27 TO THE FS-NCL-DEFERRED TAX LIABILITIES (NET)

(Amount in ₹)

	As at	Open Balance on 01.04.2019	Addition	Closing Balance on 31.03.2020
001	**DEFERRED TAX LIABILITIES (NET)**			
002	Difference of book depreciation and tax depreciation	0.00	0.00	0.00
003	Less: Deferred tax assets			
004	Provisions & Other disallowances for tax purposes	0.00	0.00	0.00
005	Unabsorbed Depreciation	0.00	0.00	0.00
006	Disallowances u/s 43B of the Income Tax Act, 1961	0.00	0.00	0.00
007	MAT credit entitlement	0.00	0.00	0.00
008		0.00	0.00	0.00
009	**Total**	**0.00**	**0.00**	**0.00**
010		0.00	0.00	0.00
011	**Total**	**0.00**	**0.00**	**0.00**
012	Breakup of deferred tax assets	0.00	0.00	0.00
013	Provision	0.00	0.00	0.00
014	Statutory dues	0.00	0.00	0.00
015	Leave encashment	0.00	0.00	0.00
016	Others	0.00	0.00	0.00
017		0.00	0.00	0.00
018		0.00	0.00	0.00

PAWAN DEV SAMTA

Locked: 17.05.2020 - 13:27:54

Run on: 17.05.2020 - 13:31:28 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 28 TO THE FS-NCL-OTHER NON-CURRENT LIABILITIES (Amount in ₹)

	As at	31.03.2020	31.03.2019
001	Other Non current Liabilities	0.00	0.00
002	Advances from customers and others	0.00	0.00
003	Depcsits from contractors and others	0.00	0.00
004		0.00	0.00
005	**TOTAL**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 29 TO THE FS-CL-BORROWINGS

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**Short Term Borrowings**	**0.00**	**0.00**
002	**Loans repayable on demand**	**0.00**	**0.00**
003	**From Banks**	**0.00**	**0.00**
004	**Secured**	**0.00**	**0.00**
005	Cash Credit	0.00	0.00
006	**Unsecured**	**0.00**	**0.00**
007	Cash Credit	0.00	0.00
008	**Other loans-unsecured**	**0.00**	**0.00**
009	Commecial Papers	0.00	0.00
010	Less: Unamortised discount on Commercial Papers	0.00	0.00
011	**Total**	**0.00**	**0.00**
012		0.00	0.00

PAWAN DEV JAMTA

Deputy General Manager (Coal Mining)

NTPC LIMITED

SOC-A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 30 TO THE FS-CL-TRADE PAYABLES

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**TRADE PAYABLES**	**0.00**	**0.00**
002	For Goods and Services	0.00	0.00
003	- Micro & Small Enterprises	19,401,232.90	6,265,614.04
004	- Others	1,408,593,686.41	1,847,607,550.62
005		0.00	0.00
006	**Total**	**1,427,994,919.31**	**1,853,873,164.66**
007		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 31 TO THE FS-CL-OTHER FINANCIAL LIABILITIES

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**OTHER FINANCIAL LIABILITIES (CURRENT)**	**0.00**	**0.00**
002	**Current maturity of long term borrowings**	**0.00**	**0.00**
003	Bonds-Secured	0.00	0.00
004	Foreign Currency Fixed Rate Notes	0.00	0.00
005	**From Banks**	**0.00**	**0.00**
006	**Secured**	**0.00**	**0.00**
007	Rupee Term Loan	0.00	0.00
008	**Unsecured**	**0.00**	**0.00**
009	Foreign currency loans	0.00	0.00
010	Rupee term loans	0.00	0.00
011	**From Others**	**0.00**	**0.00**
012	**Secured**	**0.00**	**0.00**
013	Rupee Term Loan	0.00	0.00
014	**Unsecured**	**0.00**	**0.00**
015	Foreign currency loans (Guaranteed by Government of India)	0.00	0.00
016	Other foreign currency loans	0.00	0.00
017	Rupee term loans	0.00	0.00
018	Fixed deposits	0.00	0.00
019	Sub Total	0.00	0.00
020	Current maturity of finance lease obligations (secured)	0.00	0.00
021	Current maturity of finance lease obligations (unsecured)	433,388,685.03	0.00
022	Interest accrued but not due on borrowings	0.00	0.00
023	Unpaid Dividends*	0.00	0.00
024	Unpaid matured deposits and interest accrued thereon*	0.00	0.00
025	Unpaid matured bonds and interest accrued thereon*	0.00	0.00
026	Unpaid bond refund money-Tax free bonds *	0.00	0.00
027	Book Overdraft	0.00	0.00
028	Payable to Customers	0.00	0.00
029	Liability under forward exchange contact	0.00	0.00
030	Hedging cost payable to beneficiaries	0.00	0.00
031	Derivative MTM Liability	0.00	0.00
032	**Payable for Capital Expenditure**	**0.00**	**0.00**
033	- Micro & Small Enterprises	35,853,948.11	36,618,439.80
034	- Others	4,151,957,386.99	5,064,282,890.87
035	**Others Payables**	**0.00**	**0.00**
036	Deposits from contractors and others	4,347,725.00	8,675,725.00
037	Gratuity Obligations	0.00	0.00
038	Payable to employees	2,364,832.40	7,442,263.24
039	Payable to holding company	0.00	0.00
040	Retention on A/c BG encashment (Solar)	0.00	0.00
041	Payable to Solar Payment Security Account	0.00	0.00
042	Others **	1,119,774.00	10,348,889.40

PAKRI BARWADIH COAL MINE

NOTE NO. 31 TO THE FS-CL-OTHER FINANCIAL LIABILITIES

(Amount in ₹)

	As at	31.03.2020	31.03.2019
043		0.00	0.00
044	**Total**	**4,629,032,153.53**	**5,127,346,206.31**
045	* Represents the amounts which have not been claimed by the investor/holders of the bonds/fixed deposits. Out of the above, no amount is due for payment to Investor Education and Protection Fund.	0.00	0.00
046	** Include Payable to Hospital, parties for stale cheques and other payable.	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 32 TO THE FS-CL-OTHER CURRENT LIABILITIES (Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**OTHER CURRENT LIABILITIES**	**0.00**	**0.00**
002	Advances from customers and others	0.00	0.00
003	Deferred discount on forward exchange contact	0.00	0.00
004	Tax deducted at source and other statutory dues	311,515,989.70	362,195,575.00
005	Others	0.00	0.00
006	**Total**	**311,515,989.70**	**362,195,575.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 33 TO THE FS-CL-PROVISIONS

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**SHORT TERM PROVISIONS**	**0.00**	**0.00**
002	**Provision for Employee Benefits**	**0.00**	**0.00**
003	Opening balance	0.00	0.00
004	Additions/ (adjustments) during the year	0.00	0.00
005	**Closing Balance**	**0.00**	**0.00**
028	**Provisions for Obligations Incidental to Land Acquisition**	**0.00**	**0.00**
029	Opening balance	5,283,220,382.76	4,597,442,011.15
030	Additions during the year	4,544,536,575.00	1,212,090,136.00
031	Amounts paid during the year	786,812,519.29	526,311,766.39
032	Amounts reversed during the year	168,979.00	0.00
033	**Closing Balance**	**9,040,775,459.47**	**5,283,220,382.76**
035	**Provision for Tariff Adjustment**	**0.00**	**0.00**
036	Opening balance	0.00	0.00
037	Additions during the year	0.00	0.00
038	Amounts adjusted during the year	0.00	0.00
039	Amounts reversed during the year	0.00	0.00
040	**Closing Balance**	**0.00**	**0.00**
042	**Provision for shortage in Fixed Assets Pending Investigation & Others**	**0.00**	**0.00**
043	Opening balance	111,899.00	1,680.55
044	Additions during the year	0.00	111,899.00
045	Amounts adjusted during the year	0.00	0.00
046	Amounts reversed during the year	0.00	1,680.55
047	**Closing Balance**	**111,899.00**	**111,899.00**
048	**Provision for Arbitration**	**0.00**	**0.00**
049	Opening balance	1,818,713,864.00	1,653,053,864.00
050	Additions during the year	273,585,062.00	165,660,000.00
051	Amounts used during the year	2,092,298,926.00	0.00
052	Amounts reversed during the year	0.00	0.00
053	**Closing Balance**	**0.00**	**1,818,713,864.00**
054	**Others**	**0.00**	**0.00**
055	Opening balance	0.00	0.00
056	Additions during the year	0.00	0.00
057	Amounts used during the year	0.00	0.00
058	Amounts reversed during the year	0.00	0.00
059	**Closing Balance**	**0.00**	**0.00**
102		0.00	0.00
103	**Total**	**9,040,887,358.47**	**7,102,046,145.76**

PAWAN DEV JAMTA

PAKRI BARWADIH COAL MINE

NOTE NO. 34 TO THE FS-CL-CURRENT TAX LIABILITIES (NET)

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**Current liabilities - current tax liabilities (net)**	**0.00**	**0.00**
002	Opening balance	0.00	0.00
003	Additions during the year	0.00	0.00
004	Amounts adjusted during the year	0.00	0.00
005	Less: Set off against taxes paid	0.00	0.00
006	**Closing Balance**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 35 TO THE FS--DEFERRED REVENUE

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	**Deferred Revenue**	**0.00**	**0.00**
002	On account of advance against depreciation	0.00	0.00
003	On account of income from foreign currency fluctuation	0.00	0.00
004	Government grants	0.00	0.00
005		0.00	0.00
006	**TOTAL**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 36 TO THE FS--REGULATORY DEFERRAL ACCOUNT CREDIT BALANCES (Amount in ₹)

	As at	31.03.2020	31.03.2019
001	Regulatory deferral account credit balances	0.00	0.00
002	Exchange Differences	0.00	0.00
003		0.00	0.00
004	**Total**	**0.00**	**0.00**



PAKRI BARWADIH COAL MINE

NOTE NO. 37 TO THE FS--REVENUE FROM OPERATIONS

(Amount in ₹)

	For the Year ended	31.03.2020	31.03.2019
001	**REVENUE FROM OPERATIONS**	**0.00**	**0.00**
002	**Sales**	**0.00**	**0.00**
003	Energy Sales (including Electricity Duty)	0.00	0.00
004	Less : Advance against depreciation deferred (net)	0.00	0.00
005	Add: Revenue recognized out of advance against depreciation	0.00	0.00
006	Add : Exchange fluctuation receivable from customers	0.00	0.00
007	Sale of energy through trading	0.00	0.00
008	Commission (NVVN)	0.00	0.00
009	**Sub total**	**0.00**	**0.00**
010	Less: Rebate to customers	0.00	0.00
011	**Energy Sales (Total)**	**0.00**	**0.00**
012	Consultancy, project management and supervision fees	0.00	0.00
013	Lease rentals on assets on Operating lease	0.00	0.00
014	Sale of Captive Coal	17,257,236,381.03	0.00
015	Intra Company Elimination	0.00	0.00
017	**Sub-total**	**17,257,236,381.03**	**0.00**
018	**Total - Sales**	**17,257,236,381.03**	**0.00**
019	Sale of fly ash/ash products	0.00	0.00
020	Less: Transferred to fly ash utilisation reserve fund	0.00	0.00
021	**Sub-total**	**0.00**	**0.00**
022	**Other Operating Income**	**0.00**	**0.00**
023	Interest from customers	0.00	0.00
024	Energy Internally Consumed *	0.00	0.00
025	Interest income on Assets under finance lease	0.00	0.00
026	Recognized from deferred revenue - government grant	0.00	0.00
027	Provision written back- Tariff Adjustment	0.00	0.00
028	Income form Trading of ESCerts	0.00	0.00
029	Income from E-Mobility Business	0.00	0.00
030		0.00	0.00
031	**Total**	**17,257,236,381.03**	**0.00**
040	* Valued at variable cost of generation and corresponding amount included in power charges (Note No. 42)	0.00	0.00
041	Excise duty on sale of flyash,cenospere & ash products	0.00	0.00
042	Energy sales of principal nature (NVVN)	0.00	0.00
043	Energy sales of agency nature (NVVN)	0.00	0.00

PANKAJ DEV JAIJTA

PAKRI BARWADIH COAL MINE

NOTE NO. 38 TO THE FS--OTHER INCOME

(Amount in ₹)

	For the Year ended	31.03.2020	31.03.2019
001	**OTHER INCOME**	**0.00**	**0.00**
002	**Interest from**	**0.00**	**0.00**
004	**Financial assets at amortised cost**	**0.00**	**0.00**
005	Government Securities (8.5% Tax Free Bonds issued by the State Governments)	0.00	0.00
006	Other Bonds	0.00	0.00
007		0.00	0.00
008	Interest from Government of India Securties-Non-Trade	0.00	0.00
009	Less: Amortisation of premium	0.00	0.00
010	**Sub Total**	**0.00**	**0.00**
011	Interest from others	0.00	0.00
012	Loan to State Government in settlement of dues from customers	0.00	0.00
013	Loan to Subsidiary Companies	0.00	0.00
014	Loan to Employees	5,932,364.10	4,948,563.08
015	Deposit with banks	12,837,358.00	0.00
016	Foreign Banks	0.00	0.00
017	Interest from Contractors	72,981,830.00	48,013,827.00
018	Interest from Income Tax Refunds	0.00	0.00
019	Less : Refundable to Customers	0.00	0.00
020	**Sub Total**	**0.00**	**0.00**
021	Deposits with banks-flyash utilisation reserve fund	0.00	0.00
022	Less: transferred to flyash utilisation reserve fund	0.00	0.00
023	**Sub Total**	**0.00**	**0.00**
024	Deposits with banks- DDUGJY funds	0.00	0.00
025	Interest from Contractors- DDUGJY funds	0.00	0.00
026	Transfer to DDUGJY-Advance from customers	0.00	0.00
027	Sub-total	0.00	0.00
030	Others	0.00	12,151,840.00
031		0.00	0.00
032	**Dividend from**	**0.00**	**0.00**
033	**Longterm investments in**	**0.00**	**0.00**
034	Subsidiaries	0.00	0.00
035	Joint Ventures	0.00	0.00
036	Equity Instruments	0.00	0.00
037	**Current investments in**	**0.00**	**0.00**
038	Mutual Funds measured at fairvalue through profit or loss	0.00	0.00
039	Current investments in mutual funds-flyash utilisation reserve fund	0.00	0.00
040	Less: transferred to flyash utilisation reserve fund	0.00	0.00
041	Lease Rent # Ash Brick Plant	0.00	0.00
042	Less: transferred to flyash utilisation reserve fund	0.00	0.00
043	Other non-operating income	0.00	0.00
044	Profit on disposal of PPE	11,200.50	326,482.00
045	Profit on redemption of GOI securities	0.00	0.00

Locked: 17.05.2020 - 13:27:53
Run on: 17.05.2020 - 13:34:22 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 38 TO THE FS--OTHER INCOME

(Amount in ₹)

	For the Year ended	31.03.2020	31.03.2019
046	Net gain on sale of investments	0.00	0.00
047	Surcharge received from customers	0.00	0.00
048	Hire charges for equipment	0.00	0.00
049	Gain on option contract / Discount on F ExchContract	0.00	0.00
050	Provision written back-others	18,518,809.80	201,845,920.55
051	Fair value gains/(losses) on investments in mutual funds at fair value through profit or loss	0.00	0.00
052	Interest from Solar payment security account	0.00	0.00
053	Less : Transferred to SPSA fund	0.00	0.00
054	Interest on "Retention on A/c BG encashment (Solar)"	0.00	0.00
055	Less : Transferred to "Retention on A/c BG encashment (Solar)"	0.00	0.00
056	Miscellaneous Income	681,890.73	1,667,118.02
057	**Total**	**110,763,464.13**	**266,954,830.65**
058	Less:Transferred to Development of Coal Mines-Note 43A	65,930.00	59,832,785.02
059	Less:Transferred to Expenditure during Construction period (net)- Note 43	0.00	0.00
061		0.00	0.00
062	**Total**	**110,697,534.13**	**207,122,045.63**
063		0.00	0.00
064	**Details of Miscellaneous Income**	**0.00**	**0.00**
065	Vehicle Hire Charges	32,000.00	14,753.00
066	Sale of by products & residuals	0.00	0.00
067	Township recoveries(exl. Hospital Recoveries)	285,407.73	76,231.02
068	Depreciation written back	0.00	0.00
069	Sale of Scrap	0.00	0.00
070	Receipt under loss of profit policy	0.00	0.00
071	Receipts under MBD/Fire Policy.	196,193.00	0.00
072	Management development programme.	0.00	0.00
073	Management Fee - Misc (NVVN)	0.00	0.00
074	Others	168,290.00	1,576,134.00
075		0.00	0.00
076	**Total (Miscellaneous Income)**	**681,890.73**	**1,667,118.02**
077		0.00	0.00
078	**Details of Provision written back others**	**0.00**	**0.00**
079	Doubtful debts	0.00	0.00
080	Doubtful Loans, Advances and Claims	0.00	201,844,240.00
081	Doubtful Construction Advances	0.00	0.00
082	Shortage in Construction Stores	0.00	0.00
083	Shortage in Stores	0.00	0.00
084	Obsolescence in Stores	18,518,809.80	0.00
085	Unserviceable capital works	0.00	0.00
086	Other Obligation	0.00	1,680.55
087	Shortage in Fixed Assets	0.00	0.00

Locked: 17.06.2020 - 13:27:53
Run on: 17.06.2020 - 13:34:22 Version: 0

893

PAKRI BARWADIH COAL MINE

NOTE NO. 38 TO THE FS--OTHER INCOME

(Amount in ₹)

	For the Year ended	31.03.2020	31.03.2019
088	Diminution in value of Investment	0.00	0.00



PAKRI BARWADIH COAL MINE

NOTE NO. 38A TO THE FS--FUEL COST

(Amount in ₹)

	For the Year ended	31.03.2020	31.03.2019
001	**FUEL COST**	**0.00**	**0.00**
002	Coal	0.00	0.00
003	Captive	13,786,358,847.94	0.00
004	Other than captive	0.00	0.00
005	Gas	0.00	0.00
006	Naptha	0.00	0.00
007	Oil	0.00	0.00
008	**Total**	**13,786,358,847.94**	**0.00**
009		0.00	0.00
010		0.00	0.00

Locked: 17.05.2020 - 13:27:53
Run on: 17.05.2020 - 13:34:23 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 39 TO THE FS--EMPLOYEE BENEFITS EXPENSE

(Amount in ₹)

	For the Year ended	31.03.2020	31.03.2019
001	**EMPLOYEE BENEFITS EXPENSE**	**0.00**	**0.00**
002	Salaries and wages	515,273,389.88	408,412,662.48
003	Contribution to provident and other funds	45,584,762.20	48,817,641.10
004	Unwinding of deferred payroll expense	3,864,636.57	2,960,025.82
005	Staff welfare expenses	78,437,729.04	57,533,495.19
006	Less : Expenses transferred to Consultancy group	0.00	0.00
007		0.00	0.00
008	**Sub Total**	**643,160,517.69**	**517,723,824.59**
009	Less: Employee benefits expense inventorised	164,002,567.40	0.00
010	Less: Transferred/Allocated to development of coal mines	176,547,527.70	514,347,088.77
011		0.00	0.00
012	Less: Transferred to fly ash utilisation reserve fund	0.00	0.00
013	Less: Transferred to CSR Expenses	0.00	0.00
014	Reimbursements for employees on secondment	1,449.84	0.00
015	Less: Transferred to expenditure during construction period (net)- Note 43	0.00	0.00
016	**TOTAL**	**302,608,972.95**	**3,376,735.82**
017	**Managerial Remuneration paid/ payable to Directors included above (except for Directors fee which is included in Note 42)**	**0.00**	**0.00**
018	Salaries and wages	0.00	0.00
019	Contribution to provident and other funds	0.00	0.00
020	Staff welfare expenses	0.00	0.00
021	Directors fee	0.00	0.00
022		0.00	0.00
023		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 40 TO THE FS--FINANCE COSTS

(Amount in ₹)

	For the Year ended	31.03.2020	31.03.2019
001	**FINANCE COSTS**	**0.00**	**0.00**
002	Finance charges on financial liabilities measured at amortised cost	0.00	0.00
003	Bonds	833,977,541.21	480,048,864.03
004	Government of India Loans	0.00	0.00
005	Foreign currency term loans	0.00	0.00
006	Rupee term loans	1,119,868,241.00	1,279,721,050.00
007	Public deposits	0.00	0.00
008	Foreign currency bonds/notes	0.00	0.00
009	Cash Credit	0.00	0.00
010	Unwinding of discount on account of vendor liabilities	348,784,016.88	533,736.75
011	Commercial Papers	0.00	0.00
012	Others	0.00	0.00
013	**Sub Total**	**2,102,649,799.09**	**1,760,303,650.78**
014	**Other Borrowing Costs**	**0.00**	**0.00**
015	Bonds servicing & public deposit exp.	871,678.68	1,154,049.43
016	Guarantee fee	0.00	0.00
017	Management fee	0.00	0.00
018	Committ charges/exposure premium	0.00	0.00
019	Bond issue expenses	0.00	0.00
020	Legal exp on foreign currency loans	0.00	0.00
021	Foreign currency bonds/notes exp	0.00	0.00
022	Up-front fee	0.00	0.00
023	Insurance premium on foreign currency loans	0.00	0.00
024		0.00	0.00
025	Others	0.00	0.00
026	**Sub Total (Other Borrowing cost)**	**871,678.68**	**1,154,049.43**
027		0.00	0.00
028	**Exchange differences regarded as an adjustment to interest costs**	**0.00**	**0.00**
029	**Sub Total**	**2,103,521,477.77**	**1,761,457,700.21**
030	Less: Transferred to Expenditure during construction period (net) - Note 43	0.00	0.00
031	Less: Transferred to development of coal mines-Note 43A	1,008,645,921.14	1,761,457,700.21
032		0.00	0.00
033	**Total**	**1,094,875,556.63**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 41 TO THE FS--DEPRECIATION, AMORTIZATION AND IMPAIRMENT EXPENSE (Amount in ₹)

	For the Year ended	31.03.2020	31.03.2019
001	**Depreciation, amortization and impairment expense**	**0.00**	**0.00**
002	On property, plant and equipment- Note 2	953,539,088.86	360,668,418.11
003	On intangible assets- Note 4	160,998.90	587,455.94
004	Sub-total	953,700,087.76	361,255,874.05
005	Less	0.00	0.00
006	Inventorised	543,754,953.72	0.00
007	Transferred to Expenditure during Construction Period (net)- Note 43	0.00	0.00
008	Transferred/Allocated to development of coal mines	63,687,923.24	361,255,874.05
009	Adjustment with deferred revenue from deferred foreign currency fluctuation	0.00	0.00
010	**Total**	**346,257,210.82**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 42 TO THE FS--OTHER EXPENSE

(Amount in ₹)

	For the Year ended	31.03.2020	31.03.2019
001	**OTHER EXPENSES**	**0.00**	**0.00**
002	Power charges	26,266,856.00	4,869,732.90
003	Less: Recovered from contractors & employees	5,331,848.98	885,207.92
004	**Sub-Total(Power Charges)**	**20,937,007.02**	**3,984,524.98**
005	Water charges	0.00	0.00
006	Stores consumed	0.00	0.00
007	Rent	3,085,408.00	8,524,093.00
008	Less:Recoveries	0.00	0.00
009	**Sub-Total (Rent)**	**3,085,408.00**	**8,524,093.00**
010	Cost of extraction of Captive coal	12,852,112,746.30	7,943,255,109.64
011	**Repairs & maintenance**	**0.00**	**0.00**
012	Buildings	10,181,265.54	6,441,903.49
013	Plant & machinery	0.00	0.00
014	Power stations	3,107,259.75	0.00
015	Construction equipment	14,624,035.54	5,539,060.76
016	Others	17,044,679.41	10,509,050.37
017	**Sub-total (Repairs & maintenance)**	**44,957,240.24**	**22,490,014.62**
019	Load Dispatch Center Charges	0.00	0.00
021	Insurance	738,210.00	332,391.00
022	Interest to beneficiaries	0.00	0.00
023	Rates and taxes	10,984,910.03	4,126,320.77
024	Water cess & environment protection cess	2,369,900.00	0.00
025	Training & recruitment expenses	2,338,710.88	438,600.00
026	Less: Receipts	0.00	0.00
027	**Sub-total (Training and recruitment expenses)**	**2,338,710.88**	**438,600.00**
028	Communication expenses	12,759,400.18	9,290,586.40
029	Inland Travel	32,389,301.79	28,550,132.28
030	Foreign Travel	1,775,864.00	211,905.00
031	Tender expenses	0.00	454,852.00
032	Less: Receipt from sale of tenders	203,188.00	85,233.00
033	**Sub-total (Tender expenses)**	**-203,188.00**	**369,619.00**
034	Payment to auditors	0.00	0.00
035	Audit fee	0.00	0.00
036	Tax audit fee	0.00	0.00
037	Other services	0.00	0.00
038	Reimbursement of expenses	0.00	0.00
039	**Sub-total (Payment to Auditors)**	**0.00**	**0.00**
040	Advertisement and publicity	3,894,387.13	6,498,593.38
041	Electricity duty	0.00	0.00
042	Security expenses	225,529,700.00	182,031,356.19
043	Entertainment expenses	5,610,368.30	3,959,755.70
044	Expenses for guest house	7,013,702.34	9,101,416.28
045	Less:Recoveries	49,000.00	41,917.00
046	**Sub-Total (Guest house expenses)**	**6,964,702.34**	**9,059,499.28**
047	Education expenses	0.00	0.00
048	Donations	0.00	0.00

Locked: 17.05.2020 - 13:27:53
Run on: 17.05.2020 - 13:34:25 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 42 TO THE FS--OTHER EXPENSE (Amount in ₹)

	For the Year ended	31.03.2020	31.03.2019
050	Ash utilisation & marketing expenses	0.00	0.00
051	Directors sitting fee	0.00	0.00
053	Professional charges and consultancy fees	94,679,289.73	60,092,679.57
054	Legal expenses	4,015,396.00	3,443,119.00
055	EDP hire and other charges	3,838,646.02	3,434,890.26
056	Printing and stationery	1,211,348.21	2,137,758.55
057	Oil & gas exploration expenses	0.00	0.00
059	Hiring of vehicles	58,036,186.15	53,652,072.76
061	Reimbursement of L.C.charges on sales realisation	0.00	0.00
062		0.00	0.00
063	Cost of Hedging	0.00	0.00
064	Derivatives MTM loss/gain (Net)	0.00	0.00
065	Net loss/(gain) in foreign currency transactions & translations	0.00	0.00
066	Transport Vehicle running expenses	140,816.79	0.00
067	Horticulture Expenses	1,836,266.57	2,397,770.47
068	Hire charges- helicopter/aircraft	0.00	0.00
069	Hire charges of construction equipment	52,467,114.75	65,070,307.30
070	Demurrage Charges	0.00	0.00
072		0.00	0.00
073	Miscellaneous expenses	22,826,710.04	6,661,073.15
074	Loss on disposal/write-off of PPE	91,015.47	13,918.14
075	**Sub-Total**	**13,465,418,469.94**	**8,419,256,090.72**
076	Less: Other expenses inventorised	13,078,641,326.82	0.00
077	Less: Transferred/Allocated to development of coal mines	-62,656,203.05	8,418,382,312.58
078	Less: Transferred to fly ash utilisation reserve fund	0.00	0.00
079	Less: Hedging cost Net recoverable/payable from/to beneficiaries	0.00	0.00
080		0.00	0.00
081	Less: Transferred to CSR Expenses	0.00	0.00
082	Less:Transferred to Expenditure during Construction period(net)-Note 43	0.00	0.00
083	**Net (Generation, Administration and Other expenses)**	**449,433,366.17**	**873,778.14**
084	Corporate Social Responsibility Expenses	0.00	0.00
085	Less: Grants-in-aid	0.00	0.00
086	**Sub-total (Corporate Social Responsibility Expenses)**	**0.00**	**0.00**
087	**Provisions**	**0.00**	**0.00**
088	Doubtful Debts	0.00	0.00
089	Doubtful loans, advances and claims	0.00	0.00
090	Doubtful Construction Advances	0.00	0.00
091	Shortage in stores	0.00	18,516,809.80
092	Obsolete/Dimunition in the value of surplus stores	0.00	0.00
093	Shortage in construction stores	0.00	0.00
094	Dimunition in value of long term investments	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 42 TO THE FS--OTHER EXPENSE

(Amount in ₹)

	For the Year ended	31.03.2020	31.03.2019
095	Shortage in Fixed assets	0.00	111,899.00
096	Unfinished minimum work progress from oil & gas exploration	0.00	0.00
097	Unserviceable capital works	0.00	0.00
098	Tariff Adjustment	0.00	0.00
099	Others	0.00	0.00
100	(i) Provision for arbitration cases	103,543,452.00	0.00
101	(ii) Other provisions	0.00	0.00
102	**Total (Provisions)**	**103,543,452.00**	**18,530,706.80**
103		0.00	0.00
104	**Total**	**552,976,818.17**	**19,504,486.94**
105		0.00	0.00
106	**Breakup of miscellaneous expenses.**	**0.00**	**0.00**
109	Hire charges of office equipment	51,000.00	0.00
111	Operating expenses of construction equipment	0.00	0.00
112	Operating expenses of D.G. sets	163,728.00	0.00
113	Furnishing expenses	139,552.00	0.00
114	Subscription to trade and other associations	0.00	0.00
116	Visa and entry permit charges	0.00	0.00
117	Tree plantation exp.-NTPC Land	0.00	0.00
118	Research & development expenses	0.00	0.00
119	Less : Grants received for Research & develoment expenses	0.00	0.00
120	Sub-total (Research & development expenses)	0.00	0.00
121	Bank charges	16,916.68	37,723.50
122	Business Development Expenditure	0.00	0.00
123	Surcharge (NVVN)	0.00	0.00
124	Power Trading Expenses	0.00	0.00
125	Brokerage & commission	0.00	16,620.00
129	Books and periodicals	19,674.00	29,758.00
130	Claims/advances written off	0.00	0.00
131	Stores written off	0.00	0.00
132	Survey &Investigation expenses written off	0.00	0.00
133	Others	22,437,839.36	5,901,061.65
134	**Total**	**22,829,710.04**	**5,901,073.15**
135		0.00	0.00
136		0.00	0.00
137		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 43 TO THE FS--EXPENDITURE DURING CONSTRUCTION PERIOD (NET)

(Amount in ₹)

	For the Year ended	31.03.2020	31.03.2019
001	**EXPENDITURE DURING CONSTRUCTION PERIOD (NET)**	**0.00**	**0.00**
002	A. Employee benefits expense	0.00	0.00
003	Salaries and wages	0.00	0.00
004	Contribution to provident and other funds	0.00	0.00
005	Unwinding of deffered payroll expenses	0.00	0.00
006	Staff welfare expenses	0.00	0.00
007	**Total (A)**	**0.00**	**0.00**
008	**B. Finance Costs**	**0.00**	**0.00**
009	Finance charges on financial liabilities measured at amortised cost	0.00	0.00
010	Bonds	0.00	0.00
011	Foreign currency term loans	0.00	0.00
012	Rupee term loans	0.00	0.00
013	Foreign currency bonds/notes	0.00	0.00
014	Unwinding of discount on account of vendor liabilities	0.00	0.00
015	Others	0.00	0.00
016		0.00	0.00
017	Other Borrowings Costs	0.00	0.00
018	Guarantee Commission	0.00	0.00
019	Management Fees/Arrangers Fees	0.00	0.00
020	Commitment charges/Exposure Premium	0.00	0.00
021	Legal Expenses on foreign currency loans	0.00	0.00
022	Foreign currency bonds/notes expenses	0.00	0.00
023	Foreign Credit Insurance Premium	0.00	0.00
024	Upfront Fee	0.00	0.00
025	Exchange Differences	0.00	0.00
026	Others	0.00	0.00
027	Exchange differences regarded as adjustment to interest cost	0.00	0.00
028	**Total (B)**	**0.00**	**0.00**
029		0.00	0.00
030	C. Depreciation and amortisation	0.00	0.00
031	**D. Generation , administration and other expenses**	**0.00**	**0.00**
032	Power charges	0.00	0.00
033	Less: Recovered from contractors & employees	0.00	0.00
034	**Sub-total(Net power charges)**	**0.00**	**0.00**
035	Water charges	0.00	0.00
036	Rent	0.00	0.00
037	Repairs & maintenance	0.00	0.00
038	Buildings	0.00	0.00
039	Construction equipment	0.00	0.00
040	Others	0.00	0.00
041		0.00	0.00
042	Insurance	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 43 TO THE FS--EXPENDITURE DURING CONSTRUCTION PERIOD (NET) (Amount in ₹)

	For the Year ended	31.03.2020	31.03.2019
043	Rates and taxes	0.00	0.00
044	Communication expenses	0.00	0.00
045	Travelling expenses	0.00	0.00
046	Tender expenses	0.00	0.00
047	Less: Income from sale of tenders	0.00	0.00
048	**Sub-total (Net tender expenses)**	**0.00**	**0.00**
049	Advertisement and publicity	0.00	0.00
050	Security expenses	0.00	0.00
051	Entertainment expenses	0.00	0.00
052	Guest house expenses	0.00	0.00
053	Less: Receipt from guest house	0.00	0.00
054	**Sub-total (Net Guest House Expenses)**	**0.00**	**0.00**
055	Education expenses	0.00	0.00
056	Brokerage & Commission	0.00	0.00
057	Books and periodicals	0.00	0.00
058	Community development expenses	0.00	0.00
059	Professional charges and consultancy fee	0.00	0.00
060	Legal expenses	0.00	0.00
061	EDP Hire and other charges	0.00	0.00
062	Printing and stationery	0.00	0.00
063	Miscellaneous expenses	0.00	0.00
064	**Total (D)**	**0.00**	**0.00**
065	**Total (A+B+C+D)**	**0.00**	**0.00**
066	**E. Less: Other Income**	**0.00**	**0.00**
067	Interest from	0.00	0.00
068	Indian banks	0.00	0.00
069	Foreign banks	0.00	0.00
070	Others	0.00	0.00
071	Contractors	0.00	0.00
072	Hire charges	0.00	0.00
073	Sale of scrap	0.00	0.00
074	Exchange Differences	0.00	0.00
075	Miscellaneous income	0.00	0.00
076	**TOTAL (E)**	**0.00**	**0.00**
077	F. Net actuarial gain/loss OCI	0.00	0.00
078		0.00	0.00
079	**GRAND TOTAL (A+B+C+D-E+F)**	**0.00**	**0.00**
080		0.00	0.00
081	*** Balance carried to Capital Work-in-progress - (Note 3)**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 43A TO THE FS--EDC- COAL MINING

(Amount in ₹)

	For the Year ended	31.03.2020	31.03.2019
001	**EDC- Coal Mining**	**0.00**	**0.00**
002	A. Employee benefits expense	0.00	0.00
003	Salaries and wages	139,397,194.57	408,412,662.48
004	Contribution to provident and other funds	12,401,501.66	48,817,641.10
005	Unwinding of deffered payroll expenses	0.00	0.00
006	Staff welfare expenses	24,778,831.47	57,116,785.19
007	**Total (A)**	**176,547,527.70**	**514,347,088.77**
008	**B. Finance Costs**	**0.00**	**0.00**
009	Finance charges on financial liabilities measured at amortised cost	0.00	0.00
010	Bonds	346,933,838.17	480,006,004.94
011	Foreign currency term loans	0.00	0.00
012	Rupee term loans	582,298,930.01	1,279,721,050.00
013	Foreign currency bonds/notes	0.00	0.00
014	Unwinding of discount on account of vendor liabilities	78,911,380.03	533,736.75
015	Others	0.00	0.00
016		0.00	0.00
017	Other Borrowings Costs	0.00	0.00
018	Guarantee Commission	0.00	0.00
019	Management Fees/Arrangers Fees	0.00	0.00
020	Commitment charges/Exposure Premium	0.00	0.00
021	Legal Expenses on foreign currency loans	0.00	0.00
022	Foreign currency bonds/notes expenses	0.00	0.00
023	Foreign Credit Insurance Premium	0.00	0.00
024	Upfront Fee	0.00	0.00
025	Exchange Differences	0.00	0.00
026	Others	501,772.93	1,206,908.52
027	Exchange differences regarded as adjustment to interest cost	0.00	0.00
028	**Total (B)**	**1,008,645,921.14**	**1,761,467,700.21**
029		0.00	0.00
030	C. Depreciation and amortisation	63,667,923.24	361,255,874.05
031	**D. Generation , administration and other expenses**	**0.00**	**0.00**
032	Power charges	5,268,602.15	4,869,732.90
033	Less: Recovered from contractors & employees	26,279.83	885,207.92
034	**Sub-total(Net power charges)**	**5,242,322.32**	**3,984,524.98**
035	Water charges	0.00	0.00
036	Rent	683,271.11	8,524,093.00
037	Repairs & maintenance	0.00	0.00
038	Buildings	3,910,751.41	8,441,903.49
039	Construction equipment	0.00	5,526,060.76
040	Others	1,976,190.79	10,609,050.37
041	Cost of Captive Coal	-182,373,465.26	7,949,255,109.64
042	Insurance	231,390.77	332,391.00
043	Rates and taxes	5,648,949.71	4,126,320.77

PAKRI BARWADIH COAL MINE

NOTE NO. 43A TO THE FS--EDC- COAL MINING

(Amount in ₹)

	For the Year ended	31.03.2020	31.03.2019
044	Communication expenses	4,034,708.42	9,290,586.40
045	Travelling expenses	10,186,431.76	28,762,037.28
046	Tender expenses	0.00	454,852.00
047	Less: Income from sale of tenders	94,279.23	85,233.00
048	**Sub-total (Net tender expenses)**	**-94,279.23**	**369,619.00**
049	Advertisement and publicity	845,945.54	6,498,593.36
050	Security expenses	33,698,529.88	182,031,356.19
051	Entertainment expenses	1,448,116.34	3,959,755.76
052	Guest house expenses	2,497,385.25	9,101,416.28
053	Less: Receipt from guest house	22,736.01	41,917.00
054	**Sub-total (Net Guest House Expenses)**	**2,474,649.24**	**9,059,499.28**
055	Education expenses	0.00	0.00
056	Brokerage & Commission	0.00	16,520.00
057	Books and periodicals	4,397.80	25,768.00
058	Community development expenses	0.00	0.00
059	Professional charges and consultancy fee	27,694,980.30	59,671,419.57
060	Legal expenses	0.00	3,443,119.00
061	EDP Hire and other charges	577,118.13	3,434,890.28
062	Printing and stationery	259,998.78	2,137,758.55
063	Miscellaneous expenses	21,093,797.16	126,968,935.70
064	**Total (D)**	**-62,656,203.05**	**8,418,382,212.58**
065	**Total (A+B+C+D)**	**1,186,225,169.03**	**11,055,452,975.61**
066	**E. Less: Other Income**	**0.00**	**0.00**
067	Interest from	0.00	0.00
068	Indian banks	0.00	0.00
069	Foreign banks	0.00	0.00
070	Others	0.00	10,151,840.00
071	Contractors	0.00	46,013,827.00
072	Hire charges	0.00	0.00
073	Sale of scrap	0.00	0.00
074	Exchange Differences	0.00	0.00
075	Miscellaneous income	65,930.00	1,667,116.02
076	**TOTAL (E)**	**65,930.00**	**59,832,785.02**
077	F. Net actuarial gain/loss OCI	2,614,712.72	-604,700.79
078		0.00	0.00
079	**GRAND TOTAL (A+B+C+D-E+F)**	**1,188,773,951.75**	**10,995,015,489.80**
080		0.00	0.00
081	*** Balance carried to Capital Work-in-progress - (Note 3)**	**1,188,773,951.75**	**10,995,015,489.80**

PAKRI BARWADIH COAL MINE

NOTE NO. 44-A TO THE FINANCIAL STATEMENTS

(Amount in ₹)

	As at	31.03.2020	31.03.2019
001	Balance sheet	0.00	0.00
002	Freehold land for which conveyancing of the title is awaiting completion of legal formalities	0.00	0.00
003	(a) area (in acres)	531.13	530.85
004	(b) value (in rs)	2,929,043,870.00	2,928,414,492.00
005	Right-of-use land for which execution of lease deed is awaiting completion of legal formalities	0.00	0.00
006	(a) area (in acres)	0.00	0.00
007	(b) value (in rs)	0.00	0.00
008	Right-of-use land acquired on perpetual lease and accordingly not amortised	0.00	0.00
009	(a) area (in acres)	0.00	0.00
010	(b) value (in rs.)	0.00	0.00
011	Land in physical possesession of the company which has not been shown in the books pending settlement of price (in acres)	0.00	0.00
012	Deposit with government authorities towards land in possession of the company included in cost of land which is subject to adjus	0.00	0.00
013	Land not in possession of the company	0.00	0.00
014	(a) area (in acres)	0.00	0.00
015	(b) value (in rs)	0.00	0.00
016	Right-of-use buildings pending completion of legal fomalities - value (in rs.)	0.00	0.00
017	Estimated amount of contracts remaining to be executed on capital account and not provided for	0.00	0.00
018	Property, plant & equipment	10,871,513,885.31	4,817,201,444.31
019	Intangible assets	0.00	0.00
020	Details of precommissioning expenditure	0.00	0.00
021	(a) precommissioning expenses	0.00	0.00
022	(b) precommissioning income	0.00	0.00
023	(c) net precommissioning expenditure	0.00	0.00
024	Impact due to change in Accounting policy:-	0.00	0.00
025	(a) Increase in profit/Decrease in depreciation for the year due to change in depreciation on RE assets (Competitive bidding)	0.00	0.00
026	(b) Decrease in profit due to the adjustment in grants recognized consequent to change in policy	0.00	0.00
027		0.00	0.00
028		0.00	0.00
029		0.00	0.00
030		0.00	0.00
031	Exchange rate variation taken to revenue during the year (with -ve sign, if favourable)	0.00	0.00
045	Exchange rate variation capitalised during the year (with -ve sign, if favourable)	0.00	0.00
050	Finance lease	0.00	0.00
051	A) obligations towards minimum lease payments	0.00	0.00
052	Not later than one year	229,249,238.60	0.00

NOTE NO. 44-A TO THE FINANCIAL STATEMENTS

(Amount in ₹)

	As at	31.03.2020	31.03.2019
053	Later than one year and not later than five years	612,347,342.00	0.00
054	Later than five years	7,901,572,856.00	0.00
055	**Total**	**8,443,169,433.00**	**0.00**
056	B) present value of (a) above	0.00	0.00
057	Not later than one year	125,813,411.40	0.00
058	Later than one year and not later than five years	426,935,270.56	0.00
059	Later than five years	2,197,272,826.04	0.00
060	**Total**	**2,750,021,508.00**	**0.00**
061	C) finance charges	5,693,147,925.00	0.00
062	Operating leases	0.00	0.00
063	A) rent	0.00	0.00
064	Company lease accomodation - executives	825,196.69	1,366,288.60
065	Company lease accomodation - directors	0.00	0.00
066	Others	3,085,408.00	8,524,093.00
067	**Total**	**3,910,604.69**	**9,890,381.85**
068	B) (i) receipts from sub-lease of office buildings	0.00	0.00
069	(ii) receipts from sub-lease of helicopter	0.00	0.00
070	Borrowing cost capitalised during the year	1,008,549,736.73	1,761,467,700.21
071	Revenue grants recognized during the year	0.00	0.00
072	Revenue expenditure on research and development	0.00	0.00
073	Capital expenditure on research and development	0.00	0.00
074		0.00	0.00
075	Expenditure on sustainibility development - capital	0.00	0.00
076	Expenditure on car- capital	0.00	0.00
077	Csr amount spent during the year, yet to be paid in cash	0.00	0.00
078	Constn/acquisition of any asset	0.00	0.00
079	On purpose other than above	0.00	0.00
080		0.00	0.00
081		0.00	0.00
082	Disclosure under msmed act 2006	0.00	0.00
083	(i) (a) the principal amount remaining unpaid as at year end	55,255,181.01	27,315,192.30
084	(i) (b) interest due there on remaining unpaid as at Year end	0.00	0.00
085	(ii) the amount of interest paid by the buyer in terms of section 16, along with the amounts of the payment made to the supplier	0.00	0.00
086	(iii) the amount of interest due and payable for the period of delay in making payment(which has been paid but beyond the appoin	0.00	0.00
087	(iv) the amount of interest accrued and remaining unpaid at the end of the year; and	0.00	0.00
088	(v) the amount of further interest remaining due and payable even in the succeeding years, until such date when the interest due	0.00	0.00
111		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 44-A TO THE FINANCIAL STATEMENTS

(Amount in ₹)

	As at	31.03.2020	31.03.2019
112	Amount of inventories recognized as an expense (including fuel)	8,384,407.43	5,871,314.75
113	Amount of inventories capitalised as overhauling assets out of 112 above	0.00	0.00
114	Amount capitalised as edc out of 112 above	476,012.00	5,871,314.75
134		0.00	0.00
135	Contingent liabilities	0.00	0.00
136	A. Claims against the company not acknowledged as debts in respect of :	0.00	0.00
137	(i)Capital works	4,230,473,675.00	8,126,732,863.00
138	(ii)Land compensation cases	0.00	0.00
139	(iii)Others by state authorities towards:-	0.00	0.00
140	(a) Water royalty / water charges / nala tax	0.00	0.00
141	(b) Diversion of land / building permission fees	0.00	0.00
142	(c) Other demands by state authorities	0.00	0.00
143	(iv) Others by fuel companies	0.00	0.00
144	(a) Disputes related to grade slippage-third party sampling	0.00	0.00
145	(b) Surface transportation charges on coal	0.00	0.00
146	(c) Take or pay claim - Gas stations	0.00	0.00
147	(d) Other claims by fuel companies not acknowledged as debt	0.00	0.00
149	B.Disputed tax demands	0.00	0.00
150	(i) Income tax	0.00	0.00
151	(ii) Excise duty	0.00	0.00
152	(iii) Sales tax	0.00	0.00
153	(iv) Service tax	0.00	0.00
154	(v) Entry tax	0.00	0.00
155	C. Others	0.00	0.00
156	**Total**	**4,230,473,675.00**	**8,126,732,863.00**
157	D. Possible reimbursement on account of contingent liabilities	0.00	0.00
158	(i) Capital works	0.00	0.00
159	(ii)Land compensation cases	0.00	0.00
160	(iii)Others (by state authorities)	0.00	0.00
161		0.00	0.00
162	(iv) Others by fuel companies	0.00	0.00
163	(v) Disputed income tax demand	0.00	0.00
164	(vi) Disputed tax demands -others	0.00	0.00
165	(vii) Others	0.00	0.00
167	**Total**	**0.00**	**0.00**
168	E.AMOUNT PAID UNDER PROTEST/ADJUSTED BY AUTHORITIES - TAX CASES	0.00	0.00
169		0.00	0.00
170	F.CONTINGENT ASSETS	0.00	0.00
171		0.00	0.00
172		0.00	0.00
173		0.00	0.00

Locked: 17.05.2020 - 13:27:55

Run on: 17.05.2020 - 13:31:47 Version: 0

PAKRI BARWADIH COAL MINE
NOTE NO. 44-A TO THE FINANCIAL STATEMENTS

(Amount in ₹)

	As at	31.03.2020	31.03.2019
175	Previous year figures have been regrouped/rearranged wherever necessary.	0.00	0.00

Locked: 17.05.2020 - 13:27:55
Run on: 17.05.2020 - 13:31:47 Version: 0

Page 4 of 4

Audited Financial Statements as on 31.03.2021

PAKRI BARWADIH COAL MINE

BALANCE SHEET

(Amount in ₹)

	As at	Note	31.03.2021	31.03.2020
001	**ASSETS**		**0.00**	**0.00**
002			**0.00**	**0.00**
003	**Non-Current Assets**		**0.00**	**0.00**
004	Property, plant and equipment	2	25,217,578,033.60	31,737,766,181.33
005	Capital Work-in-Progress	3	16,629,642,182.86	17,965,603,021.41
006	Intangible Assets	4	1,362,131.34	21,777.03
007	Intangible Assets under Development	5	500,999,749.19	506,911,074.79
008	**Financial Assets**		**0.00**	**0.00**
009	i) Investments in Subsidiaries and Joint Ventures	6	0.00	0.00
010	ii) Investments	7	0.00	0.00
011	iii) Trade receivables	8	0.00	0.00
012	iv) Loans	9	31,304,007.54	39,080,360.37
013	v) Other financial assets	10	62,500,000.00	53,905,126.00
014	Other non-current assets	11	1,249,569,356.01	2,700,495,914.13
015	**Total non-current assets**		**42,786,319,449.53**	**53,053,884,377.97**
016			**0.00**	**0.00**
017	**Current Assets**		**0.00**	**0.00**
018	Inventories	12	746,319,962.01	223,148,927.02
019	**Financial assets**		**0.00**	**0.00**
020	i) Investments	13	0.00	0.00
021	ii) Trade receivables	14	343,434,967.07	783,355,093.53
022	iii) Cash and cash equivalents	15	575,431,620.57	1,577,126.84
023	iv) Bank balances other than cash and cash equivalents	16	0.00	0.00
024	v) Loans	17	17,453,256.01	21,888,116.18
025	vi) Other financial assets	18	291,649,853.61	218,104,231.94
026	Current Tax Assets (net)		0.00	0.00
027			0.00	0.00
028	Other Current Assets	19	3,317,091,801.39	682,597,630.56
029			**0.00**	**0.00**
030	**Total Current Assets**		**5,291,381,552.86**	**1,910,409,125.96**
031	Regulatory deferral account debit balances	20	0.00	0.00
032	**TOTAL ASSETS**		**48,077,701,002.39**	**54,964,293,503.93**
034	**EQUITY AND LIABILITIES**		**0.00**	**0.00**
035	**Equity**		**0.00**	**0.00**
036	Equity Share capital	21	0.00	0.00
037	Other equity	22	892,558,358.19	576,302,345.37
040	**Total equity**		**892,558,358.19**	**576,302,345.37**
041			0.00	0.00
042	**Liabilities**		**0.00**	**0.00**
043	**Non-Current Liabilities**		**0.00**	**0.00**
044	**Financial liabilities**		**0.00**	**0.00**
045	i) Borrowings	23	1,720,042,806.01	2,639,074,795.01

Nagendra Kumar Jha

Locked: 15.05.2021 - 00:15:54
Run on: 15.05.2021 - 00:21:25 Version: 0

एनटीपीसी NTPC
A Maharatna Company

PAKRI BARWADIH COAL MINE

BALANCE SHEET (Amount in ₹)

	As at	Note	31.03.2021	31.03.2020
046	**ii) Trade payables**		**0.00**	**0.00**
047	- Total outstanding dues of micro and small enterprises	34	0.00	0.00
048	- Total outstanding dues of creditors other than micro and small enterprises	34	3,641.00	322,972.78
049	iii) Other financial liabilities	35	0.00	0.00
050	Provisions	26	0.00	0.00
051	Deferred Tax Liabilities (net)	27	0.00	0.00
052	Other non-current liabilities	28	0.00	0.00
053			**0.00**	**0.00**
054	**Total non-current liabilities**		**1,720,049,447.07**	**2,639,397,775.79**
055			**0.00**	**0.00**
056	**Current Liabilities**		**0.00**	**0.00**
057	**Financial liabilities**		**0.00**	**0.00**
058	i) Borrowings	29	0.00	0.00
059	**ii) Trade Payables**		**0.00**	**0.00**
060	- Total outstanding dues of micro and small enterprises	30	3,709,114.15	10,401,232.90
061	- Total outstanding dues of creditors other than micro and small enterprises	30	1,890,391,210.88	1,408,593,866.41
062	iii) Other financial liabilities	31	5,693,085,736.74	4,326,590,186.60
063	Other current liabilities	32	781,332,463.76	317,515,969.70
064	Provisions	33	5,898,912,548.33	9,040,867,356.47
065	Current tax liabilities (net)	34	0.00	0.00
066			**0.00**	**0.00**
067	**Sub Total**		**14,267,431,073.88**	**15,096,968,855.98**
068			**0.00**	**0.00**
069	Deferred Revenue	35	0.00	0.00
070	Regulatory deferral account credit balances	36	0.00	0.00
071	Inter Unit Accounts		31,197,685,123.24	36,993,704,931.76
072			**0.00**	**0.00**
073	**TOTAL EQUITY AND LIABILITIES**		**48,077,701,002.38**	**54,968,393,503.62**
074	Significant Accounting Policies as per Note 1	1	0.00	0.00
075			**0.00**	**0.00**
076	The accompanying notes 1 to 44 form an integral part of these financial statements.		0.00	0.00
077			0.00	0.00
078			**0.00**	**0.00**

(Auditor Initial & Stamp)

(Head of Finance)

(Head of Unit)

Locked: 15.05.2021 - 00:15:54
Run on: 15.05.2021 - 00:21:25 Version: 0

812

PAKRI BARWADIH COAL MINE

STATEMENT OF PROFIT AND LOSS

(Amount in ₹)

	For the Year ended	Note	31.03.2021	31.03.2020
001	**Revenue**		0.00	0.00
002	Revenue from operations	37	12,943,066,642.36	17,257,206,381.02
003	Other income	38	35,582,186.01	110,697,524.13
005	**Total Revenue**		12,978,648,828.37	17,367,903,905.16
007	**Expenses**		0.00	0.00
008	Fuel including cost of captive coal	38A	10,844,334,706.36	13,788,599,647.94
009	Employee benefits expense	39	343,311,615.04	300,696,972.95
010	Electricity purchased for trading		0.00	0.00
011	Finance costs	40	788,417,324.19	1,094,875,558.63
012	Depreciation and amortization expenses	41	118,781,053.00	346,237,210.62
013			0.00	0.00
014	Other expenses	42	436,464,903.63	562,976,818.17
015	OC expenses charge to revenue		346,680,905.42	314,232,117.60
016	Less: Unit expenses transferred to OC		0.00	0.00
017	**Total expenses**		12,557,910,508.20	16,397,349,524.11
020	**Profit before exceptional items & tax**		20,738,320.17	970,554,381.05
021	Exceptional items		0.00	0.00
024	**Profit before tax**		20,738,320.17	970,554,381.05
027	**Tax expense:**		0.00	0.00
028	Current tax		0.00	0.00
029	Deferred tax		0.00	0.00
030			0.00	0.00
031	**Total Tax expense**		0.00	0.00
032	**Profit for the period before regulatory deferral account balances**		20,738,320.17	970,554,381.05
033	**Movement in regulatory deferral account balances**		0.00	0.00
034	Regulatory deferral account - deferred		0.00	0.00
035	Others		0.00	0.00
036	Tax impact on Regulatory deferral account balances		0.00	0.00
037	**Movement in Regulatory deferrall account balances (Net of Tax)**		0.00	0.00
038	**Profit for the period/ year**		20,738,320.17	970,554,381.05
039	**Other comprehensive income**		0.00	0.00
040	**(A) Items that will not be reclassified to profit or loss**		0.00	0.00
041	- Net gains/(losses) on fair value of equity instruments through other comprehensive income		0.00	0.00
042	Income tax on above that will not be reclassified to profit or loss		0.00	0.00
043	- Net actuarial gains/(losses) on defined benefit plans		-4,482,307.35	-7,595,579.80
044	Income tax on above that will not be reclassified to profit or loss		0.00	0.00

Rajendra Kumar 10193

Locked: 15.05.2021 - 00:15:42

Run on: 15.05.2021 - 00:16:48 Version: 0

एनटीपीसी
NTPC
A Maharatna Company

PAKRI BARWADIH COAL MINE

STATEMENT OF PROFIT AND LOSS

(Amount in ₹)

	For the Year ended	Note	31.03.2021	31.03.2020
048			0.00	0.00
049	**Other comprehensive income for the year, net of income tax**		**-4,482,307.35**	**-7,595,519.80**
050			0.00	0.00
051	**Total Comprehensive Income for the year**		**16,256,012.82**	**962,988,861.25**
055			0.00	0.00
056	**Earnings per equity share:**		**0.00**	**0.00**
057	Basic & Diluted		0.00	0.00
058	Significant Accounting Policies		0.00	0.00
059	Expenditure during construction period (Net)/Dev. of coal mines (net) 43 /43A		0.00	0.00
070	The accompanying notes 1 to 44 form an integral part of these financial statements.		0.00	0.00

Rajendra
Rahul
Mohit

(Auditor Initial & Stamp) (Head of Finance) (Head of Unit)

पवन देव जनता/PAWAN DEV JANTA

PAKRI BARWADIH COAL MINE

OTHER COMPREHENSIVE INCOME

(Amount in ₹)

	For the Year ended	31.03.2021	31.03.2020
001		0.00	0.00
002	**Other comprehensive income**	**0.00**	**0.00**
003	**(A) Items that will not be reclassified to profit or loss**	**0.00**	**0.00**
004	- Net gains/(losses) on fair value of equity instruments through other comprehensive income	0.00	0.00
005	Income tax on above that will not be reclassified to profit or loss	0.00	0.00
006	- Net actuarial gains/(losses) on defined benefit plans	-4,482,307.35	-7,595,519.80
007	Income tax on above that will not be reclassified to profit or loss	0.00	0.00
008		0.00	0.00
009	(B) Items that will be reclassified to profit or loss	0.00	0.00
010	Income tax relating to above items that will be reclassified to profit or loss	0.00	0.00
011		0.00	0.00
012	**Other comprehensive income for the year, net of income tax**	**-4,482,307.35**	**-7,595,519.80**
013		0.00	0.00
014	**Total comprehensive income for the year (A+B)**	**-4,482,307.35**	**-7,595,519.80**

Note forming part of Balance Sheet
Note 2 : Property, Plant And Equipment
Business Area :1040

(Amount in Rupees)

Asset Class	Opening Gross Block As At 01.04.2020	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2021	Opening Depreciation As At 01.04.2020	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2021	Net Block As At 31.03.2021	Net Block As At 31.03.2020
1 TANGIBLE ASSETS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 Land : (including development expenses)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 Freehold	3086986024.00	0.00	(311052099.00)	2775933925.00	0.00	0.00	0.00	0.00	2775933925.00	3086986024.00
4 Right of Use	405792094.69	0.00	(92718187.00)	343043927.69	32702326.88	13468293.41	(5963420.05)	41057200.24	301956727.35	373059767.70
5 Submergence	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6 Right of use - Coal Bearing Area Land	18075768519.89	1075425827.00	(6290364572.59)	13460849674.30	1099248962.54	413800410.60	(116080876.35)	1396968696.79	12063880977.51	17576826557.35
7 Roads,bridges, culverts & helipads	543827914.72	0.00	0.00	543827914.72	30148628.37	71498753.27	0.00	101647381.04	442180533.08	513679286.35
8 Building :	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9 Freehold	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 Main plant	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11 Others	850508557.24	8669980.00	(19969680.23)	849208857.01	100613333.31	72381292.87	(5152076.37)	167812549.81	681396307.20	769895223.93
12 Right of Use	5825861.00	0.00	0.00	5825861.00	2291741.63	2152560.77	0.00	4444302.40	1381558.60	3534119.37
13 Temporary erection	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14 Water Supply, drainage & sewerage system	17289778.45	0.00	0.00	17289778.45	3659390.06	2614069.90	0.00	6273459.95	11016318.50	13630388.40
15 Hydraulic works, barrages, dams, tunnels and power channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16 MGR track and signalling system	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17 Railway siding	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18 Earth dam reservoir	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19 Plant and machinery(including associated civil works) Owned Assets	40169051.55	896892.00	(18970.00)	44046973.55	10673588.50	5203695.28	0.00	15877283.78	28169689.77	32495463.05

Note forming part of Balance Sheet
Note 2 : Property, Plant And Equipment
Business Area :1040

(Amount in Rupees)

Asset Class	Opening Gross Block As At 01.04.2020	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2021	Opening Depreciation As At 01.04.2020	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2021	Net Block As At 31.03.2021	Net Block As At 31.03.2020
20 Plant and machinery(including associated civil works) -Right of use Asset	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21 Furniture and fixtures	29729809.35	10440423.00	(3056120.00)	37114212.35	10024928.02	3905010.82	(221884.23)	13712053.41	23402146.94	19704881.33
22 Assets under S Km Scheme	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23 Vehicles including speedboats / helicopter-Owned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24 Vehicles including speedboats / helicopter - Leased	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 Office equipment	24302868.87	9996435.47	(313609.00)	33985695.14	15325416.36	5074042.43	(25863.16)	20274499.63	13714195.51	9078449.31
26 EDP, WP machines and satcom equipment	35696397.45	5928916.28	(1052169.44)	30563144.28	17730408.82	6371133.20	(299800.24)	23752975.58	7810168.71	7967988.63
27 Construction equipments	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28 Electrical installations	877652518.90	0.00	0.00	877652518.90	50249066.83	83409120.09	0.00	133658207.02	743994311.88	827403451.97
29 Communication equipments	10066518.07	73750.00	429000.00	10566568.07	2765267.51	854913.41	0.00	3410200.92	7156367.15	7310530.86
30 Hospital equipments	512150.34	172452.00	0.00	684602.34	82228.43	38660.29	0.00	120913.89	563688.65	429921.91
31 Laboratory and workshop equipments	2977525.96	0.00	0.00	2977525.96	796160.46	286808.48	0.00	1081798.94	1895727.02	2181335.50
32 Capital expenditure on assets not owned by the Company	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33 Assets of Government	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

(Dr. Dr. Deputy General Manager (Commercial) EDC, A&A, Sector-24, NOIDA

Note forming part of Balance Sheet
Note 2 : Property, Plant And Equipment
Business Area :1040

(Amount in Rupees)

Asset Class	Opening Gross Block As At 01.04.2020	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2021	Opening Depreciation As At 01.04.2020	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2021	Net Block As At 31.03.2021	Net Block As At 31.03.2020
34 Less:Grants from Government	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35 Less: Recoverable from GOI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36 Assets for ash utilisation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37 (Less):-Adjusted from fly ash utilisation reserve fund	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38 Site Restoration Cost	1824300000.00	0.00	0.00	1824300000.00	37230612.24	37230612.25	0.00	74461224.49	1749838775.51	1787069387.76
39 Mining Properties	7070316235.80	0.00	0.00	7070316235.80	353515811.79	353515811.79	0.00	767031623.58	6363284612.22	6716800424.01
Grand Total (Tangible)	33504714225.98	1111604675.75	(6680126487.26)	27929192414.47	1769948044.65	1070528822.93	(125862458.41)	2710614380.57	25217578033.60	31737766181.33
Grand Total Prev Year (Tangible)	18267884194.28	11930053728.17	3306786393.62	33504714225.98	819615504.89	953539088.88	(6205549.12)	1769948044.65	31737766181.33	17448248599.40

818



Report Date : 15.05.2021 00:19:29 Version : 0 - Status Locked (Date : 15.05.2021)

5

Note forming part of Balance Sheet
Note 2 : Property, Plant And Equipment
Business Area :1040

(Amount in Rupees)

Details of Adjustments of Gross Block and Depreciation/Amortization				
Particulars	Gross Block		Depreciation/Amortization	
	Tangible As At: 31.03.2021	Tangible As At: 31.03.2020	Tangible As At: 31.03.2021	Tangible As At: 31.03.2020
Disposal of assets	(123876.44)	(1000641.09)	(123876.44)	(885146.12)
Retirement of assets	0.00	(133489.87)	0.00	(133489.87)
Cost adjustments	1471326952.00	3341457783.51	0.00	0.00
Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Depreciation on construction equipment capitalised as EDC	0.00	0.00	0.00	0.00
Prior Period Depreciation due to Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Special Depreciation (As per New Policy)	0.00	0.00	0.00	0.00
Transfer in /out because of Inter Unit transfers	(8159329562.82)	(33527239.03)	(126738609.97)	(5187913.13)
Others	0.00	0.00	0.00	0.00
TOTAL	**(6688126487.26)**	**3306796393.52**	**(126862486.41)**	**(6206549.12)**

Note - Additions during the year includes capital expenditure towards CSR (in Rs.) : 0.00



Note forming part of Balance Sheet
Note 3: Capital-Work-in-Progress
Business Area: PAKRI BARWADIH COAL MINE

(Amount in Rupees)

Sl No	Asset Class	As At 01.04.2020	Addition	Deduction/ Adjustment	Capitalized	As At 31.03.2021
	1	2	3	4	5	6
1	CAPITAL WORK-IN-PROGRESS					
2	Development of land	4114095.29	9862343.30			13977438.59
3	Roads, bridges, culverts & helipads	1976682530.17	345826055.56			2322508585.73
4	Piling and foundation					
5	Buildings :					
6	Main plant					
7	Others	26030526.88	60352451.24	(1769615.00)		84613362.90
8	Temporary erection					
9	Water supply, drainage and sewerage system			1769615.00		1769615.00
10	Hydraulic works, barrages, dams, funnels and power channel					
11	MGR track and signalling system					
12	Railway siding					
13	Earth dam reservoir					
14	Plant and equipment	8606695563.88	703106594.33	104794.00		9309906942.21
15	Furniture and fixtures					
16	Vehicles					
17	Office equipment					
18	EDP/WP machines & satcom equipment					
19	Construction equipments					
20	Electrical installations	1082257907.67	68925952.95			1151183860.62
21	Communication equipment	294029.62	19455.63			313385.25
22	Hospital equipments					
23	Laboratory and workshop equipments					
24	Assets under Skim Scheme of the GOI					
25	Capital expenditure on assets not owned by the company		6998633.16			6998633.16
26	Expenditure towards development of coal mines	6185239479.00	(3538956099.84)			2646283379.16
27	Survey Investigation Consultancy & Supervision Chg					
28	Difference in exchange on foreign currency loans					

Note forming part of Balance Sheet
Note 3: Capital-Work-in-Progress
Business Area: PAKRI BARWADIH COAL MINE

(Amount in Rupees)

Sl No	Asset Class	As At 01.04.2020	Addition	Deduction/ Adjustment	Capitalized	As At 31.03.2021
	1	2	3	4	5	6
29	Expenditure towards diversion of forest land					
30	Pre-commissioning expenses (net)					
31	ExpPendMeca-oth ex attribut Project	1471716.98	2797947.00			4209663.98
32	Expenditure During Construction Period (net)*					
33	LESS : Allocated to related works					
34	LESS : Provision for Unservicable works					
35	**Construction stores (At Cost)**					
36	Steel					
37	Cement					
38	Others	84017172.14	4499917.24	157868.76		88674958.14
39	**Sub-total**	**84017172.14**	**4499917.24**	**157868.76**		**88674958.14**
40	LESS : Provision for shortages					
41	**Sub-total**	**84017172.14**	**4499917.24**	**157868.76**		**88674958.14**
42	**Total CWIP**	**17965803921.41**	**(2336568748.41)**	**262652.76**		**15629499624.76**
43						
44						
45	**PREVIOUS YEAR TOTAL**	**22558090635.64**	**(2697047875.99)**	**(420694102.07)**	**1499575386.32**	**17965803921.41**

Note:- Additions during the year includes capital expenditure towards CSR (in Rs.) : 0.00



पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वि.ए.)
Dep. of General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Note forming part of Balance Sheet
Note-4 Non Current Assets- Intangible Assets
Business Area :1040

(Amount in Rupees)

Asset Class	Opening Gross Block As At 01.04.2020	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2021	Opening Depreciation As At 01.04.2020	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2021	Net Block As At 31.03.2021	Net Block As At 31.03.2020
INTANGIBLE ASSETS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 Right to Use- Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 -Others	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 -Softwars	2564119.84	2601426.00	0.00	5165545.84	2542342.81	661071.69	0.00	3203414.50	1962131.34	21777.03
Grand Total (Intangible)	2564119.84	2601426.00	0.00	5165545.84	2542342.81	661071.69	0.00	3203414.50	1962131.34	21777.03
Grand Total Prev Year (Intangible)	2564119.84	0.00	0.00	2564119.84	2381343.91	160998.90	0.00	2542342.81	21777.03	182775.93

Note forming part of Balance Sheet
Note-4 Non Current Assets- Intangible Assets
Business Area :1040

(Amount in Rupees)

Details of Adjustments of Gross Block and Depreciation/Amortization				
Particulars	Gross Block		Depreciation/Amortization	
	InTangible As At: 31.03.2021	InTangible As At: 31.03.2020	InTangible As At: 31.03.2021	InTangible As At: 31.03.2020
Disposal of assets	0.00	0.00	0.00	0.00
Retirement of assets	0.00	0.00	0.00	0.00
Cost adjustments	0.00	0.00	0.00	0.00
Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Depreciation on construction equipment capitalised as EDC	0.00	0.00	0.00	0.00
Prior Period Depreciation due to Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Special Depreciation (As per New Policy)	0.00	0.00	0.00	0.00
Transfer in /out because of Inter Unit transfers	0.00	0.00	0.00	0.00
Others	0.00	0.00	0.00	0.00
TOTAL	**0.00**	**0.00**	**0.00**	**0.00**

Note :- Additions during the year includes capital expenditure towards CSR (in Rs.) : 0.00



Note forming part of Balance Sheet
Note 5: Intangible Assets under Development
Business Area: PAKRI BARWADIH COAL MINE

(Amount in Rupees)

Sl No	Asset Class	As At 01.04.2020	Addition	Deduction/ Adjustment	Capitalized	As At 31.03.2021
	1	2	3	4	5	6
1	INTANGIBLE ASSETS UNDER DEVELOPMENT					
2	Software					
3	Right to use Others					
4	Exploration and Evaluation Expenditure - Coal Mine	558911074.70	52392.00			558963466.70
5	Exploratory wells-in-progress					
6	Less: Provision for exploratory wells-in-progress					
7	Total	558911074.70	52392.00			558963466.70
8	PREVIOUS YEAR TOTAL-I					

Note:- Additions during the year includes capital expenditure towards CSR (in Rs.) : 0.00

Report Date : 15.06.2021 00:30:16 Version : 0 - Status Locked (Date :) 024 1

PAKRI BARWADIH COAL MINE

NOTE NO. 6 TO THE FS-NCA-INVESTMENTS IN SUBSIDIARIES & JOINT VENTURES (Amount in ₹)

	As at	No. of shares	Face value	31.03.2021	31.03.2020
001	**NON CURRENT INVESTMENTS-Investments in subsidiaries and joint ventures**			**0.00**	**0.00**
012	**Equity Instruments - Unquoted-(fully paid up unless otherwise stated, at cost)**			**0.00**	**0.00**
013	**Subsidiary Companies**			**0.00**	**0.00**
014	Patratu Vidyut Utpadan Nigam Ltd.			0.00	0.00
015	NTPC Electric Supply Company Ltd.			0.00	0.00
016	NTPC Vidyut Vyapar Nigam Ltd.			0.00	0.00
017	Nabinagar Power Generating Company Ltd.			0.00	0.00
018	Kanti Bijlee Utpadan Nigam Ltd.			0.00	0.00
019	Bharatiya Rail Bijlee Company Ltd.			0.00	0.00
020	NTPC Mining Ltd (NML)			0.00	0.00
021	THDC India Ltd.			0.00	0.00
022	NEEPCO LTD.			0.00	0.00
023	NTPC EDMC Waste Solutions Pvt Ltd			0.00	0.00
024	NTPC Renewables Energy Ltd			0.00	0.00
025	Ratnagiri Gas & Power Pvt. Limited (RGPPL)			0.00	0.00
026				0.00	0.00
027				0.00	0.00
028				0.00	0.00
029				0.00	0.00
030	**Sub Total**			**0.00**	**0.00**
055	**Joint Venture Companies**			**0.00**	**0.00**
056	Utility Powertech Ltd.			0.00	0.00
057	NTPC GE Power Services Pvt Ltd.			0.00	0.00
058	NTPC-SAIL Power Company Ltd.			0.00	0.00
059	NTPC-Tamil Nadu Energy Company Ltd.			0.00	0.00

NOTE NO. 6 TO THE FS-NCA-INVESTMENTS IN SUBSIDIARIES & JOINT VENTURES (Amount in ₹)

	As at	No. of shares	Face value	31.03.2021	31.03.2020
050	Ratnagiri Gas & Power Pvt. Limited (RGPPL)			0.00	0.00
051	Aravali Power Company Private Ltd.			0.00	0.00
052				0.00	0.00
053	NTPC BHEL Power Projects Private Ltd.			0.00	0.00
054	Meja Urja Nigam Private Limited			0.00	0.00
055	BF-NTPC Energy Systems Ltd.			0.00	0.00
056				0.00	0.00
057	Nabinagar Power Generating Company Ltd.			0.00	0.00
058	Transformer and Electrical Kerala Ltd.			0.00	0.00
059	National High Power Test Labortory Private Ltd.			0.00	0.00
070				0.00	0.00
071	CIL NTPC Urja Private Ltd.			0.00	0.00
072	Anushakti Vidhyut Nigam Ltd.			0.00	0.00
073	Energy Efficiency Services Ltd.			0.00	0.00
074				0.00	0.00
075	Trincomalee Power Company Ltd.			0.00	0.00
076	Bangladesh-India Foendship Power Company (Pvt.) Ltd.			0.00	0.00
077	Hindustan Urvarak & Rasayan Limited			0.00	0.00
078	Konkan LNG Ltd			0.00	0.00
079				0.00	0.00
081	**Sub Total**			**0.00**	**0.00**
109	Aggregate amount of impairment in the value of investments			0.00	0.00
110	Total (net of impairment) of JV			0.00	0.00
111	Gross Total of Investments			0.00	0.00
134	**Total**			**0.00**	**0.00**
135	Details of Investments			0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 6 TO THE FS-NCA-INVESTMENTS IN SUBSIDIARIES & JOINT VENTURES (Amount in ₹)

	As at	No. of shares	Face value	31.03.2021	31.03.2020
136	Aggregate amount of Unquoted Investments			0.00	0.00
141				0.00	0.00
142				0.00	0.00
143				0.00	0.00
144				0.00	0.00
145				0.00	0.00
153	Valuation of Investments as per Note 1			0.00	0.00
154				0.00	0.00
202				0.00	0.00
233				0.00	0.00

पवन देव जमता/PAWAN DEV JAMTA
[illegible]
[illegible] NTPC LIMITED
EGC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 7 TO THE FS-NCA-INVESTMENTS **(Amount in ₹)**

	As at	No. of shares	Face value	31.03.2021	31.03.2020
001	Non-current financial assets (investments)			0.00	0.00
006	**Long Term - Trade**			**0.00**	**0.00**
007	**Equity Instruments (fully paid up-unless otherwise stated)**			**0.00**	**0.00**
008	**Quoted**			**0.00**	**0.00**
009	**Joint Venture Companies**			**0.00**	**0.00**
010	PTC India Ltd.			0.00	0.00
070	International Coal Ventures Private Ltd			0.00	0.00
075	BF-NTPC Energy Systems Ltd.			0.00	0.00
099				0.00	0.00
110	Cooperative Societies			0.00	0.00
111	**Sub Total**			**0.00**	**0.00**
112	Aggregate amount of impairment in the value of investments			0.00	0.00
115	**Total**			**0.00**	**0.00**
120				0.00	0.00
146	NTPC Employees Consumers and Thrift Co-operative Society Ltd. Korba			0.00	0.00
147	NTPC Employees Consumers and Thrift Cooperative Society Ltd. RSTPP			0.00	0.00
148	NTPC Employees Consumers Cooperative Society Ltd. Farakka			0.00	0.00
149	NTPC Employees Consumers Cooperative Society Ltd. Vindhyachal			0.00	0.00
150	NTPC Employees Consumers Cooperative Society Ltd. Anta			0.00	0.00
151	NTPC Employees Consumers Cooperative Society Ltd. Kawas			0.00	0.00
152	NTPC Employees Consumers Cooperative Society Ltd. Kanika			0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 8 TO THE FS-NCA-TRADE RECEIVABLES

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	Non-current financial assets - Trade receivables	0.00	0.00
002	Unsecured, considered good	0.00	0.00
003	Credit impaired	0.00	0.00
004		0.00	0.00
005		0.00	0.00
006	**Total**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 9 TO THE FS-NCA-LOANS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**Loans (Non Current)**	**0.00**	**0.00**
004	Related Parties	0.00	0.00
005	Secured	0.00	0.00
006	Un-Secured	0.00	0.00
007	With significant increase in Credit Risk	0.00	0.00
008	Credit impaired	0.00	0.00
009		0.00	0.00
010	Employees(including accrued interest)	0.00	0.00
011	Secured	23,969,782.38	20,648,139.06
012	Unsecured	20,263,219.42	35,484,176.48
013	With significant increase in Credit Risk	0.00	0.00
014	Credit impaired	0.00	0.00
015	Less : Employee Loans Discounting	0.00	0.00
016	Secured	8,377,954.48	7,530,787.53
017	Unsecured	4,570,949.77	9,421,144.64
018	Loan to State Government in settlement of dues from customers (Unsecured)	0.00	0.00
019	Others	0.00	0.00
020	Secured	0.00	0.00
021	Unsecured	0.00	0.00
022	With significant increase in Credit Risk	0.00	0.00
023	Credit impaired	0.00	0.00
024	Less: Allowance for credit impaired loans	0.00	0.00
025	**Sub Total**	**31,304,097.54**	**39,080,363.27**
026		0.00	0.00
027	**Total**	**31,304,097.54**	**39,080,363.27**
028		0.00	0.00
029		0.00	0.00
030	**Due from Directors and Officers of the Company**	**0.00**	**0.00**
031	Directors	0.00	0.00
032	Officers	0.00	0.00
033		**0.00**	**0.00**
034	**Loans to related parties include:**	**0.00**	**0.00**
035	i)Key management personel	0.00	0.00
036	ii)Subsidiary companies	0.00	0.00
037	iii)Joint Venture companies	0.00	0.00
038	iv)Others	0.00	0.00
039		**0.00**	**0.00**
054	Other loans represent loans given to	0.00	0.00
059	a) APIIC	0.00	0.00
060		0.00	0.00
061	RPD	0.00	0.00
062	i)Key management personel	0.00	0.00
063	ii)Subsidiary companies	0.00	0.00
064	iii)Joint Venture companies	0.00	0.00
065	iv)Others	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 9 TO THE FS-NCA-LOANS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
066	Total	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 10 TO THE FS-NCA-OTHER FINANCIAL ASSETS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**Other Financial Assets (non current)**	**0.00**	**0.00**
002		0.00	0.00
003	**Share application money pending allotment in (Subsidiary Companies) :**	**0.00**	**0.00**
004	NTPC Electric Supply Company Ltd.	0.00	0.00
005	NTPC Vidyut Vyapar Nigam Ltd.	0.00	0.00
006	Nabinagar Power Generating Company Ltd.	0.00	0.00
007	Kanti Bijlee Utpadan Nigam Ltd.	0.00	0.00
008	Bharitya Rail Bijlee Company Ltd.	0.00	0.00
009	Patratu Vidyut Utpadan Nigam Ltd.	0.00	0.00
010	NTPC Mining Limited	0.00	0.00
011	THDC Ltd.	0.00	0.00
012	NEEPCO Ltd.	0.00	0.00
013		0.00	0.00
014	**Total**	**0.00**	**0.00**
015	**Share application money pending allotment (Joint Venture)**	**0.00**	**0.00**
016	Utility Powertech Ltd.	0.00	0.00
017	NTPC GE Power Services Pvt.Ltd.	0.00	0.00
018	NTPC-SAIL Power Company Ltd.	0.00	0.00
019	NTPC-Tamil Nadu Energy Company Ltd.	0.00	0.00
020	Ratnagiri Gas & Power Private Ltd.	0.00	0.00
021	Aravali Power Company Private Ltd.	0.00	0.00
022		0.00	0.00
023	NTPC BHEL Power Projects Private Ltd.	0.00	0.00
024	Meja Urja Nigam Private Limited	0.00	0.00
025	BF-NTPC Energy Systems Ltd.	0.00	0.00
026	Anushakti Vidhyut Nigam Ltd.	0.00	0.00
027	Nabinagar Power Generating Company Ltd.	0.00	0.00
028	Energy Efficiency Services Ltd.	0.00	0.00
029	National High Power Test Labortory Private Ltd.	0.00	0.00
030		0.00	0.00
031	CIL NTPC Urja Private Ltd.	0.00	0.00
032	Trincomalee Power Company Ltd.	0.00	0.00
033	Hindustan Urvarak & Rasayan Limited	0.00	0.00
034	Bangladesh-India Friendship Power Company Private Ltd.	0.00	0.00
035	**Sub Total**	**0.00**	**0.00**
036		0.00	0.00
037	Claims Recoverable	0.00	0.00
038	Finance Lease Recoverable	0.00	0.00
039	Mine Closure Deposit	62,500,000.00	53,905,126.00
041	**Total**	**62,500,000.00**	**53,905,126.00**

Locked: 15.05.2021 - 00:15:49
Run on: 15.05.2021 - 00:19:03 Version: 0

932

PAKRI BARWADIH COAL MINE

NOTE NO. 11 TO THE FS-NCA-OTHER NON-CURRENT ASSETS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**Other Non-current Assets**	**0.00**	**0.00**
002		**0.00**	**0.00**
003	**CAPITAL ADVANCES**	**0.00**	**0.00**
004	Secured	0.00	0.00
005	Unsecured	0.00	0.00
006	Covered by Bank Guarantee	195,293,123.00	863,174,997.69
007	Others	979,146,226.85	1,772,880,547.96
008	Considered doubtful	0.00	0.00
009	Less: Allowance for bad & doubtful advances	0.00	0.00
010	**Sub-Total**	**1,174,439,349.85**	**2,636,055,545.65**
011		0.00	0.00
012	Advances other than capital advances	0.00	0.00
013	Security deposits	32,950.00	32,950.00
019	Advances to Related parties	0.00	0.00
022	**Advances to Contractors & Suppliers**	**0.00**	**0.00**
023	Secured	0.00	0.00
024	Unsecured	0.00	0.00
025	Considered Doubtful	0.00	0.00
026	Less: Allowance for bad & doubtful advances	0.00	0.00
027	**Sub Total**	**32,950.00**	**32,950.00**
028	Receivable from MCP Escrow A/c	62,700,000.00	48,900,000.00
039	Advance tax & tax deducted at source	2,230,751.27	2,146,580.00
040	Less:- Provision for current tax	0.00	0.00
041		0.00	0.00
042	**Sub Total**	**64,930,751.27**	**51,046,580.00**
043	Deferred Payroll Expenses (Secured)	6,703,933.03	6,142,121.15
044	Deferred Payroll Expenses (Unsecured)	3,286,270.86	7,218,717.33
045	**Sub Total**	**9,990,203.89**	**13,360,838.48**
046	Deferred Foreign Currency Fluctuation Asset	0.00	0.00
048	**Total**	**1,249,393,255.01**	**2,700,495,914.13**
049		0.00	0.00
050		0.00	0.00
061	Advances include amount due from the following Private Companies in which Directors of the Company are also Directors in such Companies	0.00	0.00
063		0.00	0.00
064	NTPC GE Power Services Pvt.Ltd	0.00	0.00
065		0.00	0.00
066	Ratnagiri Gas & Power Private Ltd.	0.00	0.00
067	Aravali Power Company Private Ltd.	0.00	0.00
068	NTPC-SCCL Global Ventures Private Ltd.	0.00	0.00
069	NTPC BHEL Power Projects Private Ltd.	0.00	0.00
070	Meja Urja Nigam Private Limited	0.00	0.00
071	Nabinagar Power Generating Company Ltd.	0.00	0.00
072	National High Power Test Laboratory Private Ltd.	0.00	0.00
074	CIL NTPC Urja Private Ltd.	0.00	0.00
076		0.00	0.00

Locked: 15.05.2021 - 00:15:49

Run on: 15.05.2021 - 00:19:05 Version: 0

933

PAKRI BARWADIH COAL MINE

NOTE NO. 11 TO THE FS-NCA-OTHER NON-CURRENT ASSETS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
077	**Related Party (Adv)**	**0.00**	**0.00**
078	Key Management personel	0.00	0.00
079	Subsidiary companies	0.00	0.00
080	Joint Venture companies	0.00	0.00
081	Contractors	0.00	0.00
082	Others	0.00	0.00
084		0.00	0.00
085	**Total**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 12 TO THE FS-CA-INVENTORIES

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**INVENTORIES**	**0.00**	**0.00**
002		**0.00**	**0.00**
003	Coal	744,019,733.15	221,523,506.05
004	Fuel oil	0.00	0.00
005	Naphtha	0.00	0.00
006	Stores and spares	1,229,433.84	150,687.22
007	Chemicals & consumables	214,007.67	211,771.00
008	Loose tools	0.00	0.00
009	Steel Scrap	0.00	0.00
010	Others*	856,807.75	1,260,962.75
011	**Sub Total**	**746,319,982.21**	**223,146,927.02**
012	Less: Provision for shortages	0.00	0.00
013	Less: Provision for obsolete/ unservicable/dimunition in value of surplus inventory	0.00	0.00
014		0.00	0.00
015	**Total**	**746,319,982.21**	**223,146,927.02**
016	**Inventories include material in transit**	**0.00**	**0.00**
017	Coal	0.00	0.00
018	Fuel oil	0.00	0.00
019	Naphtha	0.00	0.00
020	Stores and spares	0.00	0.00
021	Chemicals & consumables	0.00	0.00
022	Loose tools	0.00	0.00
023	Others	0.00	0.00
024		**0.00**	**0.00**
025	Inventory items other than steel scrap have been valued considering Note 1.	0.00	0.00



PAKRI BARWADIH COAL MINE

NOTE NO. 13 TO THE FS-CA-INVESTMENTS

(Amount in ₹)

	As at	No. of shares	Face value	31.03.2021	31.03.2020
001	**CURRENT INVESTMENTS**			**0.00**	**0.00**
002	**(Valuation as per Note 1)**			**0.00**	**0.00**
003				0.00	0.00
033	Investment in Mutual Funds (Details as under)			0.00	0.00
034	SBI-Magnum Insta Cash Fund-DDR			0.00	0.00
035	SBI Premier Liquid Fund Super-IP-DDR			0.00	0.00
036	SBI-SHF Ultra Short Term Fund-IP-DDR			0.00	0.00
037	UTI Money Market-IP-Direct-Growth			0.00	0.00
038	IDBI-Liquid plan- Direct-Growth			0.00	0.00
039	Canara Robeco Liquid Fund Super-IP-DDR			0.00	0.00
040	Canara Robeco Treasury Advantage Fund Super-IP-DDR			0.00	0.00
041	IDBI Liquid Fund-DDR			0.00	0.00
042	SBI Premier Liquid fund-Direct DDR (Ash Fund)			0.00	0.00
043	UTI Liquid CashPlan - IP - DDR (Ash Funds)			0.00	0.00
044	IDBI Liquid Fund - DDR - (Ash Funds)			0.00	0.00
045	Baroda Liquid Fund - Direct - Growth			0.00	0.00
046	**Sub Total**			**0.00**	**0.00**
047				**0.00**	**0.00**
052	**Unquoted investments**			**0.00**	**0.00**
054				0.00	0.00
060	**TOTAL**			**0.00**	**0.00**
067				0.00	0.00

Locked: 15.05.2021 - 00:15:50
Run on: 15.05.2021 - 00:19:10 Version: 0

936

PAKRI BARWADIH COAL MINE

NOTE NO. 14 TO THE FS-CA-TRADE RECEIVABLES

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**TRADE RECEIVABLES (current)***	**0.00**	**0.00**
002		0.00	0.00
003	Secured,Considered Good	0.00	0.00
004	Unsecured ; considered good	343,434,967.07	783,355,093.53
005	Credit impaired	0.00	0.00
006	**Sub-Total**	**343,434,967.07**	**783,355,093.53**
007	**Total**	**343,434,967.07**	**783,355,093.53**
008	Less: Allowance for credit impaired receivables	0.00	0.00
009	**Total**	**343,434,967.07**	**783,355,093.53**
010	Less: Discom Clearing	0.00	0.00
012	**Grand Total**	**343,434,967.07**	**783,355,093.53**
013	* After adjustment for Unbilled Revenue	0.00	0.00
014	Long-term trade receivables	0.00	0.00
015	TCS Clearing	0.00	0.00
016	Discom Clearing	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 15 TO THE FS-CA-CASH AND CASH EQUIVALENTS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**CASH & BANK BALANCES**	**0.00**	**0.00**
002	**Cash & Cash Equivalents**	**0.00**	**0.00**
003	Balances with Banks	575,431,620.57	1,577,126.89
004	Cheques & Drafts on hand	0.00	0.00
005	Cash on hand	0.00	0.00
006	Others (stamps in hand)	0.00	0.00
007	Bank deposits with original maturity upto three months	0.00	0.00
008	Balances with RBI	0.00	0.00
009		0.00	0.00
010	**Total**	**575,431,620.57**	**1,577,126.89**

PAKRI BARWADIH COAL MINE

NOTE NO. 16 TO THE FS-CA-BANK BALANCES OTHER THAN CASH AND CASH EQUIVALENTS (Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**Other Bank Balances**	**0.00**	**0.00**
002	Deposits with original maturity of more than three months but not more than twelve months	0.00	0.00
003	Earmarked balances with banks*	0.00	0.00
004	**SubTotal**	**0.00**	**0.00**
005	Interest accrued on deposits	0.00	0.00
006		0.00	0.00
007	**Total**	**0.00**	**0.00**
008		0.00	0.00
009	**Earmarked balances with banks consist of :**	**0.00**	**0.00**
010	Unpaid dividend account balance	0.00	0.00
011	Towards public deposit repayment reserve	0.00	0.00
012	Towards redemption of bonds due for repayment within one year	0.00	0.00
013	Security with Government/other authorities	0.00	0.00
014	Unpaid refund/interest account balance - Tax free bonds/ Bonus Debentures	0.00	0.00
015	Earmarked for RGGVY/DDUGJY/SAUBHAGYA Fund	0.00	0.00
016	Earmarked for Flyash Utilisation Reserve Fund	0.00	0.00
017	Deposits with original maturity upto three months as per court orders	0.00	0.00
018	Payment Security Scheme of MNRE NSM (NTPC)	0.00	0.00
019	Payment Security Scheme of MNRE NSM (NVVN)	0.00	0.00
020	Enforcement Directorate of Solar Plant(NVVN)	0.00	0.00
021	Bank guarantee Fund of MNRE (NVVN)	0.00	0.00
022	Others	0.00	0.00
023		0.00	0.00
024		0.00	0.00
025		0.00	0.00
026	**Sub-total**	**0.00**	**0.00**
030	**Total**	**0.00**	**0.00**
031		0.00	0.00
032	Bank deposits with original maturity of less than three months- other than earmarked	0.00	0.00
033	Bank deposits with original maturity of more than three months but not more than twelve months- other than earmarked	0.00	0.00
034	Earmarked bank balances (current account)	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 17 TO THE FS-CA-LOANS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**Current financial assets - Loans**	**0.00**	**0.00**
002	**Loans (current)-including interest accrued**	**0.00**	**0.00**
004	**Related Parties**	**0.00**	**0.00**
005	Secured	0.00	0.00
006	Un-Secured	0.00	0.00
007	With significant increase in Credit Risk	0.00	0.00
008	Credit impaired	0.00	0.00
009		**0.00**	**0.00**
010	**Employees**	**0.00**	**0.00**
011	Secured	3,974,352.61	3,134,785.71
012	Unsecured	13,628,903.40	18,533,330.48
013	With significant increase in Credit Risk	0.00	0.00
014	Credit impaired	0.00	0.00
015	Less : Employee Loans Discounting	0.00	0.00
016	**Loan to State Government in settlement of dues from customers (Unsecured)**	**0.00**	**0.00**
017		0.00	0.00
018	**Others**	**0.00**	**0.00**
019	Secured	0.00	0.00
020	Unsecured	0.00	0.00
021	With significant increase in Credit Risk	0.00	0.00
022	Credit impaired	0.00	0.00
023		**0.00**	**0.00**
024	Less: Allowance for credit impaired loans	0.00	0.00
025	**Total (Loans)**	**17,483,256.01**	**21,668,116.19**
026		**0.00**	**0.00**
027	**Due from Directors and Officers of the Company**	**0.00**	**0.00**
028	Directors	0.00	0.00
029	Officers	0.00	0.00
030		**0.00**	**0.00**
031	**Loans to related parties include:**	**0.00**	**0.00**
032	i)Key management personel	0.00	0.00
033	ii)Subsidiary companies	0.00	0.00
034	KBUNL	0.00	0.00
035	RGPPL	0.00	0.00
036	NVVN	0.00	0.00
037	iii)Joint Venture companies	0.00	0.00
038	iv)others	0.00	0.00
039		0.00	0.00
059	RPD	0.00	0.00
060	i)Key management personel	0.00	0.00
061	ii)Subsidiary companies	0.00	0.00
062	iii)Joint Venture companies	0.00	0.00
063	iv)Others	0.00	0.00
064		0.00	0.00
065	**Total**	**0.00**	**0.00**

Locked: 15.05.2021 - 00:15:51

Run on: 15.05.2021 - 00:19:18 Version: 0

340

PAKRI BARWADIH COAL MINE

NOTE NO. 18 TO THE FS-CA-OTHER FINANCIAL ASSETS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**Other Financial Assets (current)**	**0.00**	**0.00**
002		0.00	0.00
003	**ADVANCES**	**0.00**	**0.00**
004		**0.00**	**0.00**
005	**Related Parties**	**0.00**	**0.00**
006	Secured	0.00	0.00
007	Un-Secured	-86,524.03	-70,844.06
008	Considered doubtful	0.00	0.00
009		**0.00**	**0.00**
010	**Employees**	**0.00**	**0.00**
012	Unsecured	656,058.00	2,554,572.00
013	Considered Doubtful	0.00	0.00
014		**0.00**	**0.00**
020	**Others**	**0.00**	**0.00**
021	Secured	0.00	0.00
022	Unsecured	0.00	0.00
023	Considered Doubtful	0.00	0.00
024		**0.00**	**0.00**
025	Less: Allowance for bad & doubtful advances	0.00	0.00
026		**0.00**	**0.00**
033	**Total (Advances)**	**571,533.97**	**2,483,727.94**
044		**0.00**	**0.00**
045	**Claims Recoverable**	**0.00**	**0.00**
046	Secured	0.00	0.00
047	Unsecured, considered good	0.00	0.00
048	Considered Doubtful	0.00	0.00
049	Less: - Allowance for doubtful claims	0.00	0.00
050	Others-Claims Recoverable	0.00	0.00
051		**0.00**	**0.00**
052	Unbilled Revenue	0.00	0.00
053	Hedging cost recoverable from beneficiaries	0.00	0.00
054	Derivative MTM Asset	0.00	0.00
055	Finance Lease Receivable	0.00	0.00
056	Mine Closure Deposit	287,212,685.64	215,620,504.00
057	**Other Accrued Income**	**0.00**	**0.00**
058	Secured,Considered Good	0.00	0.00
059	Unsecured , considered good	3,865,706.00	0.00
060	Credit impaired	0.00	0.00
061	Sub-Total	3,865,706.00	0.00
062	Less: Allowance for credit impaired receivables	0.00	0.00
063	**Total**	**0.00**	**0.00**
064		0.00	0.00
065	Others*	0.00	0.00
066	**Total**	**291,649,925.61**	**218,104,231.94**
067	* Other include amount recoverable from contractors and other parties towards hire charges, rent/electricity etc.	0.00	0.00

Locked: 15.05.2021 - 00:15:52

Run on: 15.05.2021 - 00:19:21 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 18 TO THE FS-CA-OTHER FINANCIAL ASSETS (Amount in ₹)

	As at	31.03.2021	31.03.2020
068	**Advances to related parties include:**	**0.00**	**0.00**
069	i)Key management personel	0.00	0.00
070	ii)Subsidiary companies	0.00	0.00
071	iii)Joint Venture companies	0.00	0.00
072	iv)Contractors	0.00	0.00
073	v)Others	0.00	0.00
074		**0.00**	**0.00**
075	Advances include amount due from the following Private Companies in which Directors of the Company are also Directors in such Companies	0.00	0.00
076		**0.00**	**0.00**
077		0.00	0.00
078	NTPC GE Power Services Pvt.Ltd	0.00	0.00
079	Ratnagiri Gas & Power Private Ltd.	0.00	0.00
080	Aravali Power Company Private Ltd	0.00	0.00
081	NTPC-SCCL Global Ventures Private Ltd.	0.00	0.00
082	NTPC BHEL Power Projects Private Ltd.	0.00	0.00
083	Meja Urja Nigam Private Limited	0.00	0.00
084	Nabinagar Power Generating Company Ltd.	0.00	0.00
085	National High Power Test Labortory Private Ltd.	0.00	0.00
086	International Coal Ventures Private Ltd.	0.00	0.00
087	CIL NTPC Urja Private Ltd.	0.00	0.00
089	Bangladesh-India Friendship Power Co. Pvt.Ltd	0.00	0.00
090	TCS Clearing	0.00	0.00
091	Related Party (Adv)- Employee	0.00	0.00
092	Related Party (Adv)- Subsidiaries	0.00	0.00
093	Related Party (Adv)- Joint Ventures	0.00	0.00
094	Related Party (Adv)- Contractors	0.00	0.00
095	Related Party (Adv)- Others	-86,524.03	-70,844.06
096		0.00	0.00
097		0.00	0.00
098		0.00	0.00
099		0.00	0.00
100	**Total**	**-86,524.03**	**-70,844.06**

PAKRI BARWADIH COAL MINE

NOTE NO. 19 TO THE FS-CA-OTHER CURRENT ASSETS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**OTHER CURRENT ASSETS**	**0.00**	**0.00**
002	Security Deposits (Unsecured)	0.00	0.00
003	Deposit with Customs, port trust & others*	2,655,977,319.00	65,835,286.00
004	**ADVANCES**	**0.00**	**0.00**
005		**0.00**	**0.00**
006	**Related Parties**	**0.00**	**0.00**
007	Secured	0.00	0.00
008	Un-Secured	2,504,240.00	0.00
009	Considered doubtful	0.00	0.00
010		**0.00**	**0.00**
011	**Employees(Including Imprest)**	**0.00**	**0.00**
012	Secured	0.00	0.00
013	Unsecured	0.00	1,072,541.00
014	Considered Doubtful	0.00	0.00
015		**0.00**	**0.00**
016	**Contractors & Suppliers**	**0.00**	**0.00**
017	Secured	0.00	0.00
018	Unsecured	248,000,412.11	303,430,156.00
019	Considered Doubtful	0.00	0.00
020		0.00	0.00
021	**Others****	**0.00**	**0.00**
022	Secured	0.00	0.00
023	Unsecured	4,629,572.00	1,703,120.00
024	Considered Doubtful	0.00	0.00
025	Less: Allowance for bad & doubtful advances	0.00	0.00
026	Receivable from MCP Escrow A/c	250,800,000.00	195,600,000.00
027	Deferred Payroll Expenses (Secured)	636,847.80	668,222.70
028	Deferred Payroll Expenses (Unsecured)	1,126,527.48	1,568,144.53
029	**Sub-total**	**1,763,375.28**	**2,237,367.29**
030	**Interest accrued on :**	**0.00**	**0.00**
031	Advances to contractors	1,602,923.00	1,602,923.00
032		**0.00**	**0.00**
033	**Claims Recoverable**	**0.00**	**0.00**
034	Secured	0.00	0.00
035	Unsecured, considered good	251,029,657.00	0.00
036	Considered Doubtful	0.00	0.00
037	Less:- Allowance for doubtful claims	0.00	0.00
038		**0.00**	**0.00**
039	Deferred premium on forward exchange contract/ Option Assets	0.00	0.00
041	Assets Held for Disposal	0.00	0.00
042	Others	784,303.00	1,040,237.00
043		0.00	0.00
044	**Total (Other Current Assets)**	**3,317,091,801.39**	**662,553,630.38**
045	**Include Prepaid Expenses	0.00	0.00
046	*Includes sales tax/Entry tax/VAT deposited under protest with Sales Tax Authorities	0.00	0.00

Locked: 15.05.2021 - 00:15:52

Run on: 15.05.2021 - 06:19:23 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 19 TO THE FS-CA-OTHER CURRENT ASSETS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
047	*Includes deposited with courts	0.00	0.00
048	*Includes deposited with LIC for annuity payments	0.00	30,708,699.00
049	* Includes deposits with WRD / against BG in r/o finance lease	0.00	0.00
050	Other include amount recoverable from contractors and other parties towards hire charges, rent/electricity etc	0.00	0.00
052	**Advances to related parties include:**	**0.00**	**0.00**
053	i)Key management personel	0.00	0.00
054	ii)Subsidiary companies	0.00	0.00
055	iii)Joint Venture companies	0.00	0.00
056	Contractors	0.00	0.00
057	Others	0.00	0.00
058		0.00	0.00
059	Advances include amount due from the following Private Companies in which Directors of the Company are also Directors in such Companies	0.00	0.00
060		**0.00**	**0.00**
061		0.00	0.00
062	Related Party (Adv)- Employee	0.00	0.00
063	Related Party (Adv)- Subsidiaries	0.00	0.00
064	Related Party (Adv)- Joint Venture	0.00	0.00
065	Related Party (Adv)- Contractors	2,504,240.00	0.00
066	Related Party (Adv)- Others	0.00	0.00
067	**Total**	**2,504,240.00**	**0.00**
068		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 20 TO THE FS--REGULATORY DEFERRAL ACCOUNT DEBIT BALANCES (Amount in ₹)

	As at	31.03.2021	31.03.2020
001	On account of Exchange Differences	0.00	0.00
002	On account of employee benefit exp	0.00	0.00
003	Regulatory deferred account - deferred	0.00	0.00
004	Deferred asset for ash transportation	0.00	0.00
005	Deferred asset for Arbitration Award	0.00	0.00
006	**Total**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 21 TO THE FS-EQUITY-EQUITY SHARE CAPITAL

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**SHARE CAPITAL**	**0.00**	**0.00**
002	**Equity Share Capital**	**0.00**	**0.00**
003	**Authorised**	**0.00**	**0.00**
004	10,000,000,000 equity shares of Rs.10/- each (Previous year 10,000,000,000 eq shares of Rs.10/- each)	0.00	0.00
005	**Issued,Subscribed and fully Paid-up**	**0.00**	**0.00**
006	9,69,66,66,134 equity shares of Rs.10/- (Pv. Year 9,894,557,280 equity shares of Rs.10/- each)	0.00	0.00
007		**0.00**	**0.00**
008	**Total**	**0.00**	**0.00**
009	During FY 2018-19, the company has issued 1,649,092,880 equity shares of Rs.10/- each as fully paid bonus shares	0.00	0.00
010	The holders of the equity shares are entitled to receive dividends as declared from time to time, and are entitled to one vote per share at meetings of the company.	0.00	0.00
011	Details of shareholders holding more than 5% shares in the company	0.00	0.00
012	- President of India	0.00	0.00
013	No. of Shares	0.00	0.00
014	% of holding	0.00	0.00
015	- Life Insurance Corporation of India/ICICI Prudential Mutual Fund	0.00	0.00
016	No. of Shares	0.00	0.00
017	% of holding	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 22 TO THE FS-EQUITY-OTHER EQUITY

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	RESERVE AND SURPLUS	0.00	0.00
002		**0.00**	**0.00**
003	**Capital Reserve**	**0.00**	**0.00**
004	As per last financial statements	0.00	0.00
006	Add : Grants received during the year	0.00	0.00
007	Add: Transfer from Surplus	0.00	0.00
008	Less: Write back during the year/period	0.00	0.00
009	Less: Adjustments during the year/period	0.00	0.00
010	**Sub-Total**	**0.00**	**0.00**
011	**Securities Premium Account**	**0.00**	**0.00**
012	As per last financial statements	0.00	0.00
013	Add: Additions during the year/period	0.00	0.00
014	Less: Adjustments during the year/period	0.00	0.00
015	**Sub-Total**	**0.00**	**0.00**
016	**Bonds Redemption Reserve**	**0.00**	**0.00**
017	As per last financial statements	0.00	0.00
018	Add: Transfer from Surplus	0.00	0.00
019	Less: Transfer to surplus on redemption	0.00	0.00
020	Less: Adjustments during the year/ period	0.00	0.00
021	**Sub-Total**	**0.00**	**0.00**
022	**Capital Redemption Reserve**	**0.00**	**0.00**
023	As per last financial statements	0.00	0.00
024	Add: Transfer from Surplus	0.00	0.00
025	Less: Transfer to surplus on redemption	0.00	0.00
026	Less: Adjustments during the year/ period	0.00	0.00
027	**Sub-Total**	**0.00**	**0.00**
028	**Share Application money Allotment**	**0.00**	**0.00**
029	As per last financial statements	0.00	0.00
030	Add: Addition during the year	0.00	0.00
031	Less: Utilised for allotment during the year	0.00	0.00
032	Less: Adjustments during the year/ period	0.00	0.00
033	**Sub-Total**	**0.00**	**0.00**
034	**Fly-ash utilisation reserve Fund**	**0.00**	**0.00**
035	As per last financial statements	0.00	0.00
036	Transferred to CC	0.00	0.00
037	Add:Transfer from revenue from operations	0.00	0.00
038	Add:Transfer from other income	0.00	0.00
039	Less: Utilised during the year	0.00	0.00
040	Tangible assets	0.00	0.00
041	Employee benefit expenses	0.00	0.00
042	Generation,admn. and other expenses	0.00	0.00
043	Tax Expenses	0.00	0.00
044	**Sub-Total**	**0.00**	**0.00**
045	**Special allowance Reserve Fund**	**0.00**	**0.00**
046	As per last financial statements	0.00	0.00
047	Add: Addition during the year	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 22 TO THE FS-EQUITY-OTHER EQUITY

(Amount in ₹)

	As at	31.03.2021	31.03.2020
048	Less: Utilised for allotment during the year	0.00	0.00
049	Less: Adjustments during the year/ period	0.00	0.00
050	**SUB-TOTAL**	**0.00**	**0.00**
053	**Corporate social responsibility (CSR) reserve**	**0.00**	**0.00**
054	As per last financial statements	0.00	0.00
055	Add : Transfer from surplus	0.00	0.00
056	Less :Write back during the year	0.00	0.00
057	**Sub-Total**	**0.00**	**0.00**
058	**General Reserve**	**0.00**	**0.00**
059	As per last financial statements	0.00	0.00
060	Add: Transfer from Surplus	0.00	0.00
061	Less: Transfer to Surplus	0.00	0.00
062	Less: Write back during the year /period	0.00	0.00
063	Less: Adjustments during the year /period	0.00	0.00
064	**Sub-Total**	**0.00**	**0.00**
065		**0.00**	**0.00**
066	**Retained earnings**	**0.00**	**0.00**
067	As per last financial statements	884,533,294.55	-86,051,086.50
068	Add(Less):-Changes in accounting policy / prior period errors	0.00	0.00
069	Add(Less):-Profit (Loss) after tax for the year from Statement of Profit & Loss	20,738,320.17	970,584,381.05
070		0.00	0.00
071	Add: Write back from Bond Redemption Reserve	0.00	0.00
072	Add: Write back from Capital Reserve	0.00	0.00
073	Add: Write back from Foreign Project Reserve	0.00	0.00
074	Add: Write back from CSR Reserve	0.00	0.00
075	Add: Write back from General Reserve	0.00	0.00
076	Less: Transfer to Bonds Redemption Reserve	0.00	0.00
077	Less: Transfer to Special Allowance Reserve Fund	0.00	0.00
078	Less: Transfer to Foreign Project Reserve	0.00	0.00
080	Less:Transfer to Capital Reserve	0.00	0.00
081	Less:Transfer to CSR Reserve	0.00	0.00
082	Less:Transfer to General Reserve	0.00	0.00
083	Less:Interim Dividend Paid	0.00	0.00
084	Less:Tax on Interim Dividend Paid	0.00	0.00
085	Less:Final Dividend Paid	0.00	0.00
086	Less:Tax on Final Dividend Paid	0.00	0.00
087	Less: Issue of bonus debenture	0.00	0.00
088	Less: Tax on issue of bonus debenture	0.00	0.00
089	**Sub-Total**	**905,271,614.72**	**884,533,294.55**
090		0.00	0.00
091	**Remeasurement of defined benefit plans**	**0.00**	**0.00**
092	As per last financial statements	-8,230,949.18	-835,429.50
093	Add/(Less) - Actuarial Gains/loss through OCI	-4,482,307.35	-7,395,519.68
094	**Sub-Total**	**-12,713,256.53**	**-8,230,949.18**
095		0.00	0.00

Locked: 15.05.2021 - 00:19:45

Run on: 15.05.2021 - 00:19:31 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 22 TO THE FS-EQUITY-OTHER EQUITY

(Amount in ₹)

	As at	31.03.2021	31.03.2020
096	**FVTOCI Reserve**	**0.00**	**0.00**
097	As per last financial statements	0.00	0.00
098	Add(Less):-Net gain/loss of equity instruments through OCI	0.00	0.00
099	**Sub-Total**	**0.00**	**0.00**
100		**0.00**	**0.00**
101	**Total Other equity**	**892,558,358.19**	**878,302,348.37**
102		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 23 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**LONG TERM BORROWINGS**	**0.00**	**0.00**
002	**Bonds**	**0.00**	**0.00**
003	**Secured**	**0.00**	**0.00**
004	7.37 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2035 (Fifty Sixth Issue - Public Issue - Series 3A).	0.00	0.00
005	7.62 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2035 (Fifty Sixth Issue - Public Issue - Series 3 B).	0.00	0.00
006	8.61% Tax free secured non-cumulative non-convertible redeemable bonds of ₹ 10,00,000/- each redeemable at par in full on 4th March 2034 (Fifty First Issue C - Private Placement)	0.00	0.00
007	8.66% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2033 (Fiftieth Issue - Public Issue - Series 3A)	0.00	0.00
008	8.91% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2033 (Fiftieth Issue - Public Issue - Series 3B)	0.00	0.00
009	7.37% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 14th December 2031 (Sixty Sixth Issue - Private Placement)	0.00	0.00
010	7.49% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 7th November 2031 (Sixty Fourth Issue - Private Placement)	0.00	0.00
011	7.28 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2030 (Fifty Sixth Issue - Public Issue - Series	0.00	0.00

NOTE NO. 23 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
	2A)		
012	7.53 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2030 (Fifty Sixth Issue - Public Issue - Series 2 B).	0.00	0.00
013	7.32% Secured non-cumulative non-convertible redeemable taxable bonds of Rs 10,00,000/- each redeemable at par in full on 17 July 2029 (Sixty Ninth Issue - Private Placement)	0.00	0.00
014	8.63% Tax free secured non-cumulative non-convertible redeemable bonds of ₹ 10,00,000/- each redeemable at par in full on 4th March 2029 (Fifty First Issue B - Private Placement)	0.00	0.00
015	8.30% Secured non-cumulative non-convertible redeemable taxable bonds of Rs 10,00,000/- each redeemable at par in full on 15 January 2029 (Sixty Seventh Issue - Private Placement)	0.00	0.00
016	8.48% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2028 (Fiftieth Issue - Public Issue - Series 2A)	0.00	0.00
017	8.73% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2028 (Fiftieth Issue - Public Issue - Series 2B)	0.00	0.00
018	7.47% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 16th September 2026 (Sixty Third Issue - Private Placement)	0.00	0.00
019	7.58% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in	0.00	0.00

	As at	31.03.2021	31.03.2020
	full on 23rd August 2026 (Sixty Second Issue - Private Placement)		
020	8.05% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 5th May 2026 (Sixtieth Issue - Private Placement)	0.00	0.00
021	8.19% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 15th December 2025 (Fifty Seventh Issue - Private Placement)	0.00	0.00
022	7.11 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2025 (Fifty Sixth Issue - Public Issue - Series 1A).	0.00	0.00
023	7.36 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2025 (Fifty Sixth Issue - Public Issue - Series 1 B).	0.00	0.00
024	7.15% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of Rs. 10,00,000/- each redeemable at par in full on 21st August 2025 (Fifty Fifth Issue - Private Placement)	0.00	0.00
025	9.17% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 22nd September 2024 (53rd Issue - private placement).	0.00	0.00
026	9.34% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 24th March 2024 (Fifty Second Issue - private placement)	0.00	0.00
027	8.19% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 10,00,000/- each redeemable at	0.00	0.00

	As at	31.03.2021	31.03.2020
	par in full on 4th March 2024 (Fifty First Issue A - Private Placement)		
028	8.41% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2023 (Fiftieth Issue - Public Issue - Series 1A)	0.00	0.00
029	8.66% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2023 (Fiftieth Issue - Public Issue - Series 1B)	0.00	0.00
030	9.25% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each with five equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 11th year and in annual installments thereafter upto the enit of 15th year respectively commencing from 4th May 2023 and ending on 4th May 2027 (Forty fourth issue - private placement)VII	0.00	0.00
031	8.48% Secured non-cumulative non-nonvertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 1st May 2023 (Seventeenth issue - private placement)I	0.00	0.00
032	8.80% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4th April 2023 (Forty ninth issue -private placement	0.00	0.00
033	8.49% Secured non-cumulative non-convertible redeemable taxable fully paid-up bonus debentures of Rs. 12.50 each redeemable at par in three annual installments of Rs. 2.50, Rs. 5.00 and Rs. 5.00 at the end of 8th year, 9th year and 10th year on 25th March 2023, 25th March 2024 and 25th March 2025 respectively (Fifty Fourth Issue -Bonus Debentures)X - (refer Note 5 d)	0.00	0.00
034	8.73% Secured non-cumulative	0.00	0.00

	As at	31.03.2021	31.03.2020
	non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 07th March 2023 (Forty eighth issue - private placement)		
035	9.00% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each with five equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 11th year and in annual installments thereafter upto the end of 15th year respectively commencing from 25th January 2023 and ending on 25th January 2027 (Forty second issue- private placement)III	0.00	0.00
036	8.84% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4th October 2022 (Forty seventh issue- private placement)VII	0.00	0.00
037	7.93% Secured non-cumulative non-convertible redeemable taxable bonds of ` 10,00,000/- each redeemable at par in full on 03 May 2022 (68th Issue - Private Placement)	0.00	0.00
038	6.72% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 24th November 2021 (Sixty Fifth Issue - Private Placement)	0.00	0.00
039	8.10% Secured Non-Cumulative Non-Convertible Redeemable Taxable Bonds of Rs. 10,00,000/- each redeemable at par in three equal separately transferable redeemable principal parts (STRPP) at the end of 5th year, 10th year & 15th year on 27th May 2021, 27th May 2026 and 27th May 2031 respectively (Sixty First Issue- Private Placement)	0.00	0.00
040	8.33% Secured non-cumulative non-convertible redeemable taxable bonds of Rs.10,00,000/- each redeemable at par in full on 24th February 2021	0.00	0.00

PAWAN DEV JAMTA
Deputy General Manager (Commercial)
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

	As at	31.03.2021	31.03.2020
	(Fifty Ninth Issue - Private Placement).		
042	8.93% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 19th January 2021 Thirty seventh issue - private placement)III	0.00	0.00
043	8.18% Secured non-cumulative non-convertible redeemable taxable bonds of Rs.10,00,000/- each redeemable at par in full on 31st December 2020 (Fifty Eight Issue - Private Placement).	0.00	0.00
044	8.73 % Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 31st March 2020 (Thirty third issue- private placement)III	0.00	0.00
045	8.78 % Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 9th March 2020 (Thirty first issue- private placement)III	0.00	0.00
046	11.25% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in five equil annual installments commencing from 6th Nov 2019 and ending on 6th Nov 2023 (Twenty seventh issue - private placement)III	0.00	0.00
047	7.89% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 5th May 2019 (Thirtieth issue - private placement)III	0.00	0.00
048	8.65% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4th February 2019 (Twenty ninth issue - private placement)III	0.00	0.00
049	7.50% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full	0.00	0.00

	As at	31.03.2021	31.03.2020
	on 12th January 2019 (Nineteenth issue - private placement)II		
050	11% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 21st November 2018 (Twenty eighth issue - private placement)III	0.00	0.00
051	9.3473% Secured non-cumulative non-convertible redeemable taxable bonds of ₹15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 20th July 2018 and ending on 20th July 2032 (Forty sixth issue - private placement)VII	0.00	0.00
052	9.4376% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 16th May 2018 and ending on 16th May 2032 (Forty fifth issue - private placement)VII	0.00	0.00
053	8.00% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 10th April 2018 (Sixteenth issue -private placement)I	0.00	0.00
054	9.2573% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 2nd March 2018 and ending on 2nd March 2032 (Forty third issue - private placement)III	0.00	0.00
055	9.6713% Secured non-cumulative non-convertible redeemable taxable bonds	0.00	0.00

	As at	31.03.2021	31.03.2020
	of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 23rd December 2017 and ending on 23rd December 2031 (Forty first issue - private placement)III		
056	9.558% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 29th July 2017 and ending on 29th July 2031(Fourtieth issue-private placement)III	0.00	0.00
057	9.3896% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 9th June 2017 and ending on 9th June 2031(Thirty ninth issue-private placement)III	0.00	0.00
058	9.17% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 22nd March 2017 and ending on 22nd March 2031(Thirty eighth issue-private placement)III	0.00	0.00
059	8.8086% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th	0.00	

	As at	31.03.2021	31.03.2020
	year and in annual installments thereafter upto the end of 20th year respectively commencing from 15th December 2016 and ending on 15th December 2030 (Thirty sixth issue - private placement)III		
060	8.785% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 15th September 2016 and ending on 15th September 2030 (Thirty fifth issue - private placement)III	0.00	0.00
061	8.71% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 10th June 2016 and ending on 10th June 2030 (Thirty fourth issue - private placement)III	0.00	0.00
062	8.8493% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 25th March 2016 and ending on 25th March 2030 (Thirty second issue - private placement)III	0.00	0.00
063	9.37% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 70,00,000/- each with fourteen separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 4th June 2012 and ending on 4th December 2018 (Twenty fifth issue -	0.00	0.00

	As at	31.03.2021	31.03.2020
	private placement)III		
065	9.06% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 70,00,000/- each with fourteen separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 4th June 2012 and ending on 4th December 2018 (Twenty sixth issue - private placement)III	0.00	0.00
066	8.6077% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 9th September 2011 and ending on 9th March 2021 (Twenty fourth issue - private placement)IV	0.00	0.00
067	8.3796% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 5th August 2011 and ending on 5th February 2021 (Twenty third issue - private placement)IV	0.00	0.00
068	8.1771% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 2nd July 2011 and ending on 2nd January 2021 (Twenty second issue - private placement)IV	0.00	0.00
069	7.7125% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 2nd August 2010 and ending on 2nd February 2020 (Twenty first issue - private placement)V	0.00	0.00
070	7.552% Secured non-cumulative non-convertible redeemable taxable bonds	0.00	0.00

	As at	31.03.2021	31.03.2020
	of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 23rd September 2009 and ending on 23rd March 2019 (Twentieth issue - private placement)VI		
071	9.55% Secured non-cumulative non-convertible taxable redeemable bonds of ₹ 10,00,000/- each with ten equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of the 6th year and in annual installments thereafter upto the end of 15th year respectively from 30th April 2002 (Thirteenth issue - Part B - private placement)VIII	0.00	0.00
072	9.55% Secured non-cumulative non-convertible taxable redeemable bonds of ₹ 10,00,000/- each redeemable at par in ten equal annual installments commencing from the end of 6th year and upto the end of 15th year respectively from 18th April 2002 (Thirteenth issue -Part A - private placement)VIII	0.00	0.00
073		0.00	0.00
074		0.00	0.00
075		0.00	0.00
076		0.00	0.00
077	**Sub Total**	**0.00**	**0.00**
078	**Unsecured**	**0.00**	**0.00**
079	6.55% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 17 April 2023 (Seventieth Issue - Private Placement)	0.00	0.00
080	6.29% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 11 April 2031 (Seventy First Issue - Private Placement)	0.00	0.00
081	5.45% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 15 October 2025 (Seventy Second Issue - Private Placement)	0.00	0.00

	As at	31.03.2021	31.03.2020
082	6.43% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 27 January 2031 (Seventy Third Issue - Private Placement)	0.00	0.00
083		0.00	0.00
084		0.00	0.00
085		0.00	0.00
086	**Sub-total**	**0.00**	**0.00**
087	**Total**	**0.00**	**0.00**
088	**Foreign Currency Notes-Unsecured**	**0.00**	**0.00**
089	4.50% Fixed Rate Notes Due for repayment on 19th March 2028	0.00	0.00
090	2.75% Fixed rate notes due for repayment on 1st February 2027	0.00	0.00
091	4.25 % Fixed rate notes due for repayment on 26th February 2026	0.00	0.00
092	4.375% Fixed Rate Note due for repayment on 26th November 2024	0.00	0.00
093	4.75 % Fixed Rate Notes due for repayment on 3rd Oct 2022	0.00	0.00
094	7.25 % Fixed green global INR denominated bonds due on 3 May 2022	0.00	0.00
095	7.375 % Fixed green global INR denominated bonds due on 10 August 2021	0.00	0.00
096	5.625% Fixed Rate Notes due for repayment on 14th July 2021	0.00	0.00
097	3.75 % Fixed rate notes due for repayment on 03 April 2024	0.00	0.00
098		0.00	0.00
099		0.00	0.00
100		0.00	0.00
101		0.00	0.00
102	**Sub Total**	**0.00**	**0.00**
103	Long term maturities of Finance Lease Obligations (Secured) IX	0.00	0.00
104	Long term maturities of Finance Lease Obligations (Unsecured) X	1,720,042,806.01	2,750,021,518.01
105	**Term Loans**	**0.00**	**0.00**
106	**From Banks**	**0.00**	**0.00**
107	**Secured**	**0.00**	**0.00**
108	Rupee Loans	0.00	0.00
109	**Unsecured**	**0.00**	**0.00**
110	Foreign Currency Loans	0.00	0.00
111	Rupee Loans	0.00	0.00
112	**From Others**	**0.00**	**0.00**
113	**Secured**	**0.00**	**0.00**
114	Rupee Loans	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 23 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
115	Foreign Currency loans (guaranteed by GOI)	0.00	0.00
116	**Unsecured**	**0.00**	**0.00**
117	Foreign Currency loans (guaranteed by GOI)	0.00	0.00
118	Other Foreign currency loans	0.00	0.00
119	Rupee Loans	0.00	0.00
120	**Deposits**	**0.00**	**0.00**
121	**Unsecured**	**0.00**	**0.00**
122	Fixed Deposits	0.00	0.00
123	**Others**	**0.00**	**0.00**
124	**Unsecured**	**0.00**	**0.00**
125	Bonds Application Money Pending Allotment	0.00	0.00
126	**Sub-total**	**1,720,042,806.01**	**2,750,021,518.01**
127	**Total**	**1,720,042,806.01**	**2,750,021,518.01**
128		0.00	0.00
129	Less:- Interst accrued but not due on borrowings	0.00	0.00
130	Less:- Current maturities of long term borrowings	0.00	0.00
131	Bonds-Secured	0.00	0.00
132	Fixed Rate Notes	0.00	0.00
133	Foreign currency loans from Banks- unsecured	0.00	0.00
134	Rupee loans from banks- Secured	0.00	0.00
135	Rupee loans from banks- unsecured	0.00	0.00
136	Rupee Term loan from Others - Secured	0.00	0.00
137	Foreign currency loans from others- unsecured (Guaranteed by GOI)	0.00	0.00
138	Other foreign currency loans from others- unsecured	0.00	0.00
139	Rupee loans from others- unsecured	0.00	0.00
140	Finance Lease obligations - secured	0.00	0.00
141	Finance Lease obligations - unsecured	0.00	110,946,720.00
200	**Total**	**1,720,042,806.01**	**2,639,074,798.01**

PAKRI BARWADIH COAL MINE

NOTE NO. 24 TO THE FS-NCL-TRADE PAYABLES

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**TRADE PAYABLES(NON CURRENT)**	**0.00**	**0.00**
002	**For Goods and Services**	**0.00**	**0.00**
003	- Micro & Small Enterprises	0.00	0.00
004	- Others	3,641.06	322,972.78
005		0.00	0.00
006	**Total**	**3,641.06**	**322,972.78**



PAKRI BARWADIH COAL MINE

NOTE NO. 25 TO THE FS-NCL-OTHER FINANCIAL LIABILITIES

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**OTHER FINANCIAL LIABILITIES (NON-CURRENT)**	**0.00**	**0.00**
002	Payable for Capital Expenditure	0.00	0.00
003	- Micro & Small Enterprises	0.00	0.00
004	- Others	0.00	0.00
005	Others	0.00	0.00
006	Deposits from contractors and others	0.00	0.00
007		0.00	0.00
008		0.00	0.00
009	**Total**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 26 TO THE FS-NCL-PROVISIONS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**LONG TERM PROVISIONS**	**0.00**	**0.00**
002	**Provision for Employee Benefits**	**0.00**	**0.00**
003	Opening Balance	0.00	0.00
004	Additions/ (adjustments) during the year	0.00	0.00
005	**Closing Balance**	**0.00**	**0.00**
013		**0.00**	**0.00**
014	**TOTAL**	**0.00**	**0.00**

एनटीपीसी NTPC
A Maharatna Company

NOTE NO. 27 TO THE FS-NCL-DEFERRED TAX LIABILITIES (NET) (Amount in ₹)

	As at	Open Balance on 01.04.2020	Addition	Closing Balance on 31.03.2021
001	**DEFERRED TAX LIABILITIES (NET)**			
002	Difference of book depreciation and tax depreciation	0.00	0.00	0.00
003	Less: Deferred tax assets			
004	Provisions & Other disallowances for tax purposes	0.00	0.00	0.00
005	Unabsorbed Depreciation	0.00	0.00	0.00
006	Disallowances u/s 43B of the Income Tax Act, 1961	0.00	0.00	0.00
007		0.00	0.00	0.00
008		0.00	0.00	0.00
009		0.00	0.00	0.00
010		0.00	0.00	0.00
011	MAT credit entitlement	0.00	0.00	0.00
012		0.00	0.00	0.00
013	**Total**	**0.00**	**0.00**	**0.00**
014		0.00	0.00	0.00
015	**Total**	**0.00**	**0.00**	**0.00**
016	Breakup of deferred tax assets	0.00	0.00	0.00
017	Provision	0.00	0.00	0.00
018	Statutory dues	0.00	0.00	0.00
019	Leave encashment	0.00	0.00	0.00
020	Others	0.00	0.00	0.00
021		0.00	0.00	0.00
022		0.00	0.00	0.00



PAKRI BARWADIH COAL MINE

NOTE NO. 28 TO THE FS-NCL-OTHER NON-CURRENT LIABILITIES

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	Other Non current Liabilities	0.00	0.00
002	Advances from customers and others	0.00	0.00
003	Deposits from contractors and others	0.00	0.00
004		0.00	0.00
005	**TOTAL**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 29 TO THE FS-CL-BORROWINGS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**Short Term Borrowings**	0.00	0.00
002	**Loans repayable on demand**	0.00	0.00
003	**From Banks**	0.00	0.00
004	**Secured**	0.00	0.00
005	Cash Credit	0.00	0.00
006	**Unsecured**	0.00	0.00
007	Cash Credit	0.00	0.00
008	**Other loans-unsecured**	0.00	0.00
009	Commecial Papers	0.00	0.00
010	Less: Unamortised discount on Commercial Papers	0.00	0.00
011	**Sub-Total**	0.00	0.00
012	**TOTAL**	0.00	0.00

पवन देव जनगंता/PAWAN DEV JAMTA
Dep. of General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 30 TO THE FS-CL-TRADE PAYABLES

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**TRADE PAYABLES**	**0.00**	**0.00**
002	For Goods and Services	0.00	0.00
003	- Micro & Small Enterprises	3,709,114.15	19,401,232.90
004	- Others	1,890,391,210.88	1,408,593,686.41
005		0.00	0.00
006	**Total**	**1,894,100,325.03**	**1,427,994,919.31**
007		0.00	0.00



PAKRI BARWADIH COAL MINE

NOTE NO. 31 TO THE FS-CL-OTHER FINANCIAL LIABILITIES

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**OTHER FINANCIAL LIABILITIES (CURRENT)**	**0.00**	**0.00**
002	**Current maturity of long term borrowings**	**0.00**	**0.00**
003	Bonds-Secured	0.00	0.00
004	Foreign Currency Fixed Rate Notes	0.00	0.00
005	**From Banks**	**0.00**	**0.00**
006	**Secured**	**0.00**	**0.00**
007	Rupee Term Loan	0.00	0.00
008	**Unsecured**	**0.00**	**0.00**
009	Foreign currency loans	0.00	0.00
010	Rupee term loans	0.00	0.00
011	**From Others**	**0.00**	**0.00**
012	**Secured**	**0.00**	**0.00**
013	Rupee Term Loan	0.00	0.00
014	**Unsecured**	**0.00**	**0.00**
015	Foreign currency loans (Guaranteed by Government of India)	0.00	0.00
016	Other foreign currency loans	0.00	0.00
017	Rupee term loans	0.00	0.00
018	Fixed deposits	0.00	0.00
019	Sub Total	0.00	0.00
020	Current maturity of finance lease obligations (secured)	0.00	0.00
021	Current maturity of finance lease obligations (unsecured)	0.00	110,946,720.00
022	Interest accrued but not due on borrowings	0.00	0.00
023	Unpaid Dividends*	0.00	0.00
024	Unpaid matured deposits and interest accrued thereon*	0.00	0.00
025	Unpaid matured bonds and interest accrued thereon*	0.00	0.00
026	Unpaid bond refund money-Tax free bonds *	0.00	0.00
027	Book Overdraft	0.00	0.00
028	Payable to Customers	0.00	0.00
029	Liability under forward exchange contact	0.00	0.00
030	Hedging cost payable to beneficiaries	0.00	0.00
031	Derivative MTM Liability	0.00	0.00
032	**Payable for Capital Expenditure**	**0.00**	**0.00**
033	- Micro & Small Enterprises	32,071,007.48	35,863,948.11
034	- Others	3,338,409,272.36	4,151,957,388.99
035	**Others Payables**	**0.00**	**0.00**
036	Deposits from contractors and others	3,027,729.00	4,347,725.00
037	Gratuity Obligations	0.00	0.00
038	Payable to employees	3,254,126.14	2,364,632.40
039	Payable to holding company	0.00	0.00
040	Retention on A/c BG encashment (Solar)	0.00	0.00
041	Payable to Solar Payment Security Account	0.00	0.00
042	Others **	2,516,323,902.74	1,119,774.00

PAKRI BARWADIH COAL MINE

NOTE NO. 31 TO THE FS-CL-OTHER FINANCIAL LIABILITIES

(Amount in ₹)

	As at	31.03.2021	31.03.2020
043		0.00	0.00
044	**Total**	**5,893,085,736.74**	**4,306,590,188.50**
045	* Represents the amounts which have not been claimed by the investor/holders of the bonds/fixed deposits. Out of the above, no amount is due for payment to Investor Education and Protection Fund.	0.00	0.00
046	** Include Payable to Hospital and other payable.	0.00	0.00



PAKRI BARWADIH COAL MINE

NOTE NO. 32 TO THE FS-CL-OTHER CURRENT LIABILITIES

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**OTHER CURRENT LIABILITIES**	**0.00**	**0.00**
002	Advances from customers and others	0.00	0.00
003	Deferred discount on forward exchange contact	0.00	0.00
004	Tax deducted at source and other statutory dues	781,332,463.78	311,515,989.70
005	Others	0.00	0.00
006	**Total**	**781,332,463.78**	**311,515,989.70**



PAKRI BARWADIH COAL MINE

NOTE NO. 33 TO THE FS-CL-PROVISIONS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**SHORT TERM PROVISIONS**	**0.00**	**0.00**
002	**Provision for Employee Benefits**	**0.00**	**0.00**
003	Opening balance	0.00	0.00
004	Additions/ (adjustments) during the year	0.00	0.00
005	**Closing Balance**	**0.00**	**0.00**
028	**Provisions for Obligations Incidental to Land Acquisition**	**0.00**	**0.00**
029	Opening balance	9,040,775,459.47	5,283,220,382.75
030	Additions during the year	823,941,251.82	4,544,538,575.00
031	Amounts paid during the year	365,967,998.52	786,812,519.29
032	Amounts reversed during the year	3,799,958,063.44	168,979.00
033	**Closing Balance**	**5,698,800,649.33**	**9,040,775,459.47**
035	**Provision for Tariff Adjustment**	**0.00**	**0.00**
036	Opening balance	0.00	0.00
037	Additions during the year	0.00	0.00
038	Amounts adjusted during the year	0.00	0.00
039	Amounts reversed during the year	0.00	0.00
040	**Closing Balance**	**0.00**	**0.00**
042	**Provision for shortage in Fixed Assets Pending Investigation & Others**	**0.00**	**0.00**
043	Opening balance	111,899.00	111,899.00
044	Additions during the year	0.00	0.00
045	Amounts adjusted during the year	0.00	0.00
046	Amounts reversed during the year	0.00	0.00
047	**Closing Balance**	**111,899.00**	**111,899.00**
048	**Provision for Arbitration**	**0.00**	**0.00**
049	Opening balance	0.00	1,818,713,864.00
050	Additions during the year	0.00	273,585,062.00
051	Amounts used during the year	0.00	2,092,298,926.00
052	Amounts reversed during the year	0.00	0.00
053	**Closing Balance**	**0.00**	**0.00**
054	**Others**	**0.00**	**0.00**
055	Opening balance	0.00	0.00
056	Additions during the year	0.00	0.00
057	Amounts used during the year	0.00	0.00
058	Amounts reversed during the year	0.00	0.00
059	**Closing Balance**	**0.00**	**0.00**
102		0.00	0.00
103	**Total**	**5,698,912,548.33**	**9,040,887,358.47**

Locked: 15.05.2021 - 00:15:46
Run on: 15.05.2021 - 00:20:04 Version: 0

973

PAKRI BARWADIH COAL MINE

NOTE NO. 34 TO THE FS-CL-CURRENT TAX LIABILITIES (NET)

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**Current liabilities - current tax liabilities (net)**	**0.00**	**0.00**
002	Opening balance	0.00	0.00
003	Additions during the year	0.00	0.00
004	Amounts adjusted during the year	0.00	0.00
005	Less: Set off against taxes paid	0.00	0.00
006	**Closing Balance**	**0.00**	**0.00**



PAKRI BARWADIH COAL MINE

NOTE NO. 35 TO THE FS--DEFERRED REVENUE

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**Deferred Revenue**	**0.00**	**0.00**
002	On account of advance against depreciation	0.00	0.00
003	On account of income from foreign currency fluctuation	0.00	0.00
004	Government grants	0.00	0.00
005		0.00	0.00
006	**TOTAL**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 35 TO THE FS--REGULATORY DEFERRAL ACCOUNT CREDIT BALANCES

(Amount in ?)

	As at	31.03.2021	31.03.2020
001	Regulatory deferral account credit balances	0.00	0.00
002	Exchange Differences	0.00	0.00
003		0.00	0.00
004	Total	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 37 TO THE FS--REVENUE FROM OPERATIONS

(Amount in ₹)

	For the Year ended	31.03.2021	31.03.2020
001	**REVENUE FROM OPERATIONS**	**0.00**	**0.00**
002	**Sales**	**0.00**	**0.00**
003	Energy Sales (including Electricity Duty)	0.00	0.00
004	Less : Advance against depreciation deferred (net)	0.00	0.00
005	Add: Revenue recognized out of advance against depreciation	0.00	0.00
006	Add : Exchange fluctuation receivable from customers	0.00	0.00
007	Sale of energy through trading	0.00	0.00
008	Commission (NVVN)	0.00	0.00
009	**Sub total**	**0.00**	**0.00**
010	Less: Rebate to customers	0.00	0.00
011	**Energy Sales (Total)**	**0.00**	**0.00**
012	Consultancy, project management and supervision fees	0.00	0.00
013	Lease rentals on assets on Operating lease	0.00	0.00
014	Sale of Captive Coal	12,943,056,642.36	17,257,236,381.03
015	Intra Company Elimination	0.00	0.00
017	**Sub-total**	**12,943,056,642.36**	**17,257,236,381.03**
018	**Total - Sales**	**12,943,056,642.36**	**17,257,236,381.03**
019	Sale of fly ash/ash products	0.00	0.00
020	Less: Transferred to fly ash utilisation reserve fund	0.00	0.00
021	**Sub-total**	**0.00**	**0.00**
022	**Other Operating Income**	**0.00**	**0.00**
023	Interest from customers	0.00	0.00
024	Energy Internally Consumed *	0.00	0.00
025	Interest income on Assets under finance lease	0.00	0.00
026	Recognized from deferred revenue - government grant	0.00	0.00
027	Provision written back- Tariff Adjustment	0.00	0.00
028	Income form Trading of ESCerts	0.00	0.00
029	Income from E-Mobility Business	0.00	0.00
030		0.00	0.00
031	**Total**	**12,943,056,642.36**	**17,257,236,381.03**
040	* Valued at variable cost of generation and corresponding amount included in power charges.(Note No. 42)	0.00	0.00
041	Excise duty on sale of flyash,cenospere & ash products	0.00	0.00
042	Energy sales of principal nature (NVVN)	0.00	0.00
043	Energy sales of agency nature (NVVN)	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 38 TO THE FS--OTHER INCOME

(Amount in ₹)

	For the Year ended	31.03.2021	31.03.2020
001	**OTHER INCOME**	**0.00**	**0.00**
002	**Interest from**	**0.00**	**0.00**
004	**Financial assets at amortised cost**	**0.00**	**0.00**
005	Government Securities (8.5% Tax Free Bonds issued by the State Governments)	0.00	0.00
006	Other Bonds	0.00	0.00
007		0.00	0.00
008	Interest from Government of India Securities-Non-Trade	0.00	0.00
009	Less: Amortisation of premium	0.00	0.00
010	**Sub Total**	**0.00**	**0.00**
011	Interest from others	0.00	0.00
012	Loan to State Government in settlement of dues from customers	0.00	0.00
013	Loan to Subsidiary Companies	0.00	0.00
014	Loan to Employees	5,082,194.58	5,932,384.10
015	Deposit with banks	11,187,055.84	12,637,356.00
016	Foreign Banks	0.00	0.00
017	Interest from Contractors	19,906,724.00	72,961,830.00
018	Interest from Income Tax Refunds	0.00	0.00
019	Less : Refundable to Customers	0.00	0.00
020	**Sub Total**	**0.00**	**0.00**
021	Deposits with banks-flyash utilisation reserve fund	0.00	0.00
022	Less: transferred to flyash utilisation reserve fund	0.00	0.00
023	**Sub Total**	**0.00**	**0.00**
024	Deposits with banks- DDUGJY funds	0.00	0.00
025	Interest from Contractors- DDUGJY funds	0.00	0.00
026	Transfer to DDUGJY-Advance from customers	0.00	0.00
027	Sub-total	0.00	0.00
030	Others	0.00	0.00
031		0.00	0.00
032	**Dividend from**	**0.00**	**0.00**
033	**Longterm investments in**	**0.00**	**0.00**
034	Subsidiaries	0.00	0.00
035	Joint Ventures	0.00	0.00
036	Equity Instruments	0.00	0.00
037	**Current Investments in**	**0.00**	**0.00**
038	Mutual Funds measured at fairvalue through profit or loss	0.00	0.00
039	Current investments in mutual funds-flyash utilisation reserve fund	0.00	0.00
040	Less: transferred to flyash utilisation reserve fund	0.00	0.00
041	Lease Rent # Ash Brick Plant	0.00	0.00
042	Less: transferred to flyash utilisation reserve fund	0.00	0.00
043	Other non-operating income	64,625.40	11,203.50
044	Profit on disposal of PPE	0.00	0.00
045	Profit on redemption of GOI securities		

PAKRI BARWADIH COAL MINE

NOTE NO. 38 TO THE FS--OTHER INCOME

(Amount in ₹)

	For the Year ended	31.03.2021	31.03.2020
046	Net gain on sale of investments	0.00	0.00
047	Surcharge received from customers	0.00	0.00
048	Hire charges for equipment	0.00	0.00
049	Gain on option contract / Discount on F.ExchContract	0.00	0.00
050	Provision written back-others	0.00	18,518,809.80
051	Fair value gains/(losses) on investments in mutual funds at fair value through profit or loss	0.00	0.00
052	Interest from Solar payment security account	0.00	0.00
053	Less : Transferred to SPSA fund	0.00	0.00
054	Interest on "Retention on A/c BG encashment (Solar)"	0.00	0.00
055	Less : Transferred to "Retention on A/c BG encashment (Solar)"	0.00	0.00
056	Miscellaneous Income	1,225,642.96	681,890.73
057	**Total**	**37,466,242.58**	**110,763,454.13**
058	Less:Transferred to Development of Coal Mines-Note 43A	1,674,056.57	65,930.00
059	Less:Transferred to Expenditure during Construction period (net)- Note 43	0.00	0.00
061	Less: Others	0.00	0.00
062	**Total**	**35,792,186.01**	**110,697,524.13**
063		0.00	0.00
064	**Details of Miscellaneous Income**	**0.00**	**0.00**
065	Vehicle Hire Charges.	24,000.00	32,000.00
066	Sale of by products & residuals	0.00	0.00
067	Township recoveries(ext. Hospital Recoveries).	169,162.86	285,407.73
068	Depreciation written back	0.00	0.00
069	Sale of Scrap.	0.00	0.00
070	Receipt under loss of profit policy.	0.00	0.00
071	Receipts under MBD/Fire Policy.	0.00	196,193.00
072	Management development programme.	0.00	0.00
073	Management Fee - Misc (NVVN)	0.00	0.00
074	Others	1,032,480.10	168,290.00
075		0.00	0.00
076	**Total (Miscellaneous Income)**	**1,225,642.96**	**681,890.73**
077		0.00	0.00
078	**Details of Provision written back others**	**0.00**	**0.00**
079	Doubtful debts	0.00	0.00
080	Doubtful Loans, Advances and Claims	0.00	0.00
081	Doubtful Construction Advances	0.00	0.00
082	Shortage in Construction Stores	0.00	0.00
083	Shortage in Stores	0.00	0.00
084	Obsolescence in Stores	0.00	18,518,809.80
085	Unserviceable capital works	0.00	0.00
086	Other Obligation including Arbitration	0.00	0.00
087	Shortage in Fixed Assets	0.00	0.00

Locked: 15.05.2021 - 00:15:39
Run on: 15.05.2021 - 00:18:32 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 38 TO THE FS--OTHER INCOME

(Amount in ₹)

	For the Year ended	31.03.2021	31.03.2020
088	Diminution in value of Investment	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 38A TO THE FS--FUEL COST

(Amount in ₹)

	For the Year ended	31.03.2021	31.03.2020
001	**FUEL COST**	**0.00**	**0.00**
002	Coal	0.00	0.00
003	Captive	11,350,288,637.02	13,786,398,847.94
004	Other than captive	-506,053,930.66	0.00
005	Gas	0.00	0.00
006	Naptha	0.00	0.00
007	Oil	0.00	0.00
008	**Total**	**10,844,234,706.36**	**13,786,398,847.94**
009		0.00	0.00
010		0.00	0.00



PAKRI BARWADIH COAL MINE

NOTE NO. 39 TO THE FS--EMPLOYEE BENEFITS EXPENSE

(Amount in ₹)

	For the Year ended	31.03.2021	31.03.2020
001	**EMPLOYEE BENEFITS EXPENSE**	**0.00**	**0.00**
002	Salaries and wages	404,412,901.83	615,273,389.86
003	Contribution to provident and other funds	45,605,776.55	45,584,762.20
004	Unwinding of deferred payroll expense	3,171,417.04	3,864,636.57
005	Staff welfare expenses	55,042,275.55	78,437,729.04
006	Less : Expenses transferred to Consultancy group	0.00	0.00
007		0.00	0.00
008	**Sub Total**	**508,232,369.77**	**643,160,517.69**
009	Less: Employee benefits expense allocated to fuel inventory	161,031,543.69	164,002,567.40
010	Less: Transferred/Allocated to development of coal mines	3,836,135.04	176,547,527.70
011	Less: Others	0.00	0.00
012	Less: Transferred to fly ash utilisation reserve fund	0.00	0.00
013	Less: Transferred to CSR Expenses	0.00	0.00
014	Reimbursements for employees on secondment	53,076.00	1,449.64
015	Less: Transferred to expenditure during construction period (net)- Note 43	0.00	0.00
016	**TOTAL**	**343,311,615.04**	**302,608,972.95**
017	**Managerial Remuneration paid/ payable to Directors included above (except for Directors fee which is included in Note 42)**	**0.00**	**0.00**
018	Salaries and wages	0.00	0.00
019	Contribution to provident and other funds	0.00	0.00
020	Staff welfare expenses	0.00	0.00
021	Directors fee	0.00	0.00
022		0.00	0.00
023		0.00	0.00

PAWAN DEV JAISTA

Locked: 15.05.2021 - 00:15:40
Run on: 15.05.2021 - 00:18:36 Version: 0

एनटीपीसी NTPC
A Maharatna Company

PAKRI BARWADIH COAL MINE

NOTE NO. 40 TO THE FS--FINANCE COSTS

(Amount in ₹)

	For the Year ended	31.03.2021	31.03.2020
001	**FINANCE COSTS**	**0.00**	**0.00**
002	Finance charges on financial liabilities measured at amortised cost	0.00	0.00
003	Bonds	562,919,689.92	633,977,541.21
004	Government of India Loans	0.00	0.00
005	Foreign currency term loans	0.00	0.00
006	Rupee term loans	934,797,317.00	1,119,888,241.00
007	Public deposits	0.00	0.00
008	Foreign currency bonds/notes	0.00	0.00
009	Cash Credit	0.00	0.00
010	Unwinding of discount on account of vendor liabilities	280,285,246.61	348,784,016.88
011	Commercial Papers	0.00	0.00
012	**Sub Total**	**1,778,002,233.53**	**2,102,649,799.09**
013	Interest on non financial items	0.00	0.00
014	**Other Borrowing Costs**	**0.00**	**0.00**
015	Bonds servicing & public deposit exp.	668,043.59	871,678.68
016	Guarantee fee	0.00	0.00
017	Management fee	0.00	0.00
018	Committ charges/exposure premium	0.00	0.00
019	Bond issue expenses	0.00	0.00
020	Legal exp on foreign currency loans	0.00	0.00
021	Foreign currency bonds/notes exp.	0.00	0.00
022	Up-front fee	0.00	0.00
023	Insurance premium on foreign currency loans	0.00	0.00
024		0.00	0.00
025	Others	0.00	0.00
026	**Sub Total (Other Borrowing cost)**	**668,043.59**	**871,678.68**
027		0.00	0.00
028	**Exchange differences regarded as an adjustment to borrowing costs**	**0.00**	**0.00**
029	**Sub Total**	**1,778,670,277.12**	**2,103,521,477.77**
030	Less: Transferred to Expenditure during construction period (net) - Note 43	0.00	0.00
031	Less: Transferred to development of coal mines-Note 43A	990,252,952.93	1,008,645,921.14
032		0.00	0.00
033	**Total**	**788,417,324.19**	**1,094,875,556.63**

पवन देव जामाता/PAWAN DEV JAMTA
उप महाप्रबंधक (वित्त)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 41 TO THE FS--DEPRECIATION AND AMORTIZATION EXPENSES

(Amount in ₹)

	For the Year ended	31.03.2021	31.03.2020
001	**Depreciation and amortization expenses**	**0.00**	**0.00**
002	On property, plant and equipment- Note 2	1,070,528,822.63	963,539,088.88
003	On intangible assets- Note 4	661,071.69	160,998.90
004	Sub-total	1,071,189,894.32	963,700,087.78
005	Less:	0.00	0.00
006	Allocated to fuel inventory	871,992,757.71	543,754,953.72
007	Transferred to Expenditure during Construction Period (net)- Note 43	0.00	0.00
008		0.00	0.00
009	Transferred/Allocated to development of coal mines	405,083.05	63,687,923.24
010	Adjustment with deferred revenue from deferred foreign currency fluctuation	0.00	0.00
011		0.00	0.00
012	**Total**	**198,791,053.56**	**346,257,210.82**

पवन देव जायसवाल/PAWAN DEV JAISWAL
Deputy General Manager
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 42 TO THE FS--OTHER EXPENSE

(Amount in ₹)

	For the Year ended	31.03.2021	31.03.2020
001	**OTHER EXPENSES**	**0.00**	**0.00**
002	Power charges	27,292,095.24	26,268,856.00
003	Less: Recovered from contractors & employees	4,186,669.85	5,331,848.98
004	**Sub-Total(Power Charges)**	**23,105,425.39**	**20,937,007.02**
005	Water charges	0.00	0.00
006	Stores consumed	5,058.16	0.00
007	Rent	4,500,625.49	3,085,408.00
008	Less:Recoveries	0.00	0.00
009	**Sub-Total (Rent)**	**4,500,625.49**	**3,085,408.00**
010	Cost of captive coal produced	10,234,391,185.82	12,852,112,746.30
011	**Repairs & maintenance**	**0.00**	**0.00**
012	Buildings	6,583,010.57	10,181,265.54
013	Plant & machinery	0.00	0.00
014	Power stations	30,208,676.60	3,107,259.75
015	Construction equipment	3,939,747.15	14,824,035.54
016	Others	20,788,336.28	17,044,679.41
017	**Sub-total (Repairs & maintenance)**	**61,519,770.60**	**44,957,240.24**
019	Load Dispatch Center Charges	0.00	0.00
021	Insurance	1,100,887.00	736,210.00
022	Interest to beneficiaries	0.00	0.00
023	Rates and taxes	36,233,673.45	10,984,910.03
024	Water cess & environment protection cess	0.00	2,369,900.00
025	Training & recruitment expenses	157,360.01	2,338,710.68
026	Less: Receipts	0.00	0.00
027	**Sub-total (Training and recruitment expenses)**	**157,360.01**	**2,338,710.68**
028	Communication expenses	9,901,910.48	12,759,400.18
029	Inland Travel	19,341,991.32	32,389,301.79
030	Foreign Travel	872,541.09	1,775,894.00
031	Tender expenses	0.00	0.00
032	Less: Receipt from sale of tenders	22,878.00	203,188.00
033	**Sub-total (Tender expenses)**	**-22,878.00**	**-203,188.00**
034	Payment to auditors	0.00	0.00
035	Audit fee	0.00	0.00
036	Tax audit fee	0.00	0.00
037	Other services	0.00	0.00
038	Reimbursement of expenses	0.00	0.00
039	**Sub-total (Payment to Auditors)**	**0.00**	**0.00**
040	Advertisement and publicity	1,034,224.00	3,894,387.13
041	Electricity duty	0.00	0.00
042	Security expenses	131,622,690.51	225,529,700.00
043	Entertainment expenses	4,743,160.47	5,819,368.30
044	Expenses for guest house	5,244,161.82	7,013,702.34
045	Less:Recoveries	25,367.00	49,000.00
046	**Sub-Total (Guest house expenses)**	**5,218,794.82**	**6,964,702.34**
047	Education expenses	0.00	0.00
049	Donations	0.00	0.00

Locked: 15.05.2021 - 00:15:41
Run on: 15.05.2021 - 00:18:40 Version: 0

एनटीपीसी
NTPC
A Maharatna Company

PAKRI BARWADIH COAL MINE

NOTE NO. 42 TO THE FS--OTHER EXPENSE

(Amount in ₹)

	For the Year ended	31.03.2021	31.03.2020
050	Ash utilisation & marketing expenses	0.00	0.00
051	Directors sitting fee	0.00	0.00
053	Professional charges and consultancy fees	111,126,127.47	94,679,289.73
054	Legal expenses	10,588,671.00	4,015,398.00
055	EDP hire and other charges	1,036,883.35	3,838,646.02
056	Printing and stationery	1,125,570.75	1,211,348.21
057	Oil & gas exploration expenses	0.00	0.00
059	Hiring of vehicles	60,114,248.14	58,036,188.15
061	Reimbursement of L.C.charges on sales realisation	0.00	0.00
062		0.00	0.00
063	Cost of Hedging	0.00	0.00
064	Derivatives MTM loss/gain (Net)	0.00	0.00
065	Net loss/(gain) in foreign currency transactions & translations	0.00	0.00
066	Transport Vehicle running expenses	11,942.00	140,816.79
067	Horticulture Expenses	1,614,715.10	1,838,266.57
068	Hire charges- helicopter/aircraft.	0.00	0.00
069	Hire charges of construction equipment	37,770,534.26	52,487,114.75
070	Demurrage Charges	0.00	0.00
072		0.00	0.00
073	Miscellaneous expenses	8,248,344.97	22,828,710.04
074	Loss on disposal/write-off of PPE	0.00	91,015.47
075	**Sub-Total**	**10,765,563,458.85**	**13,465,418,489.94**
076	Less: Other expenses allocated to fuel inventory	10,317,264,335.62	13,078,641,326.82
077	Less: Transferred/Allocated to development of coal mines	11,834,219.60	-62,656,203.05
078	Less: Transferred to fly ash utilisation reserve fund	0.00	0.00
079	Less: Hedging cost Net recoverable/payable from/to beneficiaries	0.00	0.00
080	Less: Others	0.00	0.00
081	Less: Transferred to CSR Expenses	0.00	0.00
082	Less:Transferred to Expenditure during Construction period(net)-Note 43	0.00	0.00
083	**Net (Generation, Administration and Other expenses)**	**436,464,903.63**	**449,433,366.17**
084	Corporate Social Responsibility Expenses	0.00	0.00
085	Less: Grants-in-aid	0.00	0.00
086	**Sub-total (Corporate Social Responsibility Expenses)**	**0.00**	**0.00**
087	**Provisions**	**0.00**	**0.00**
088	Doubtful Debts	0.00	0.00
089	Doubtful loans, advances and claims	0.00	0.00
090	Doubtful Construction Advances	0.00	0.00
091	Shortage in stores	0.00	0.00
092	Obsolete/Dimunition in the value of surplus stores	0.00	0.00
093	Shortage in construction stores	0.00	0.00
094	Dimunition in value of long term investments	0.00	0.00

पवन देव जमाता/PAWAN DEV JAMTA
उप प्रबंधक (पीएचएफ)
Deputy Chief Manager (PHF)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 42 TO THE FS--OTHER EXPENSE

(Amount in ₹)

	For the Year ended	31.03.2021	31.03.2020
095	Shortage in Fixed assets	0.00	0.00
096	Unfinished minimum work progress from oil & gas exploration	0.00	0.00
097	Unserviceable capital works	0.00	0.00
098	Tariff Adjustment	0.00	0.00
099	Others :	0.00	0.00
100	(i) Provision for arbitration cases	0.00	103,543,452.00
101	(ii) Other provisions	0.00	0.00
102	**Total (Provisions)**	**0.00**	**103,543,452.00**
103		0.00	0.00
104	**Total**	**436,464,903.63**	**552,976,818.17**
105		0.00	0.00
106	**Breakup of miscellaneous expenses.**	**0.00**	**0.00**
109	Hire charges of office equipment	0.00	51,000.00
111	Operating expenses of construction equipment	0.00	0.00
112	Operating expenses of D.G. sets	0.00	163,728.00
113	Furnishing expenses	335,660.04	139,552.00
114	Subscription to trade and other associations	0.00	0.00
116	Visa and entry permit charges	0.00	0.00
117	Tree plantation exp -NTPC Land	0.00	0.00
118	Research & development expenses	0.00	0.00
119	Less : Grants received for Research & develoment expenses	0.00	0.00
120	Sub-total (Research & development expenses)	0.00	0.00
121	Bank charges	8,544.32	16,916.68
122	Business Development Expenditure	0.00	0.00
123	Surcharge (NVVN)	0.00	0.00
124	Power Trading Expenses	0.00	0.00
125	Brokerage & commission	0.00	0.00
129	Books and periodicals	3,170.00	19,674.00
130	Claims/advances written off	0.00	0.00
131	Stores written off	0.00	0.00
132	Survey &Investigation expenses written off	0.00	0.00
133	Others	7,902,970.61	22,437,839.36
134	**Total**	**8,248,344.97**	**22,828,710.04**
135		0.00	0.00
136		0.00	0.00
137		0.00	0.00



PAKRI BARWADIH COAL MINE

NOTE NO. 43 TO THE FS--EXPENDITURE DURING CONSTRUCTION PERIOD (NET)

(Amount in ₹)

	For the Year ended	31.03.2021	31.03.2020
001	**EXPENDITURE DURING CONSTRUCTION PERIOD (NET)**	**0.00**	**0.00**
002	A. Employee benefits expense	0.00	0.00
003	Salaries and wages	0.00	0.00
004	Contribution to provident and other funds	0.00	0.00
005	Unwinding of deffered payroll expenses	0.00	0.00
006	Staff welfare expenses	0.00	0.00
007	**Total (A)**	**0.00**	**0.00**
008	**B. Finance Costs**	**0.00**	**0.00**
009	Finance charges on financial liabilities measured at amortised cost	0.00	0.00
010	Bonds	0.00	0.00
011	Foreign currency term loans	0.00	0.00
012	Rupee term loans	0.00	0.00
013	Foreign currency bonds/notes	0.00	0.00
014	Unwinding of discount on account of vendor liabilities	0.00	0.00
015	Others	0.00	0.00
016		0.00	0.00
017	Other Borrowings Costs	0.00	0.00
018	Guarantee Commission	0.00	0.00
019	Management Fees/Arrangers Fees	0.00	0.00
020	Commitment charges/Exposure Premium	0.00	0.00
021	Legal Expenses on foreign currency loans	0.00	0.00
022	Foreign currency bonds/notes expenses	0.00	0.00
023	Foreign Credit Insurance Premium	0.00	0.00
024	Upfront Fee	0.00	0.00
025	Exchange Differences	0.00	0.00
026	Others	0.00	0.00
027	Exchange differences regarded as adjustment to interest cost	0.00	0.00
028	**Total (B)**	**0.00**	**0.00**
029		0.00	0.00
030	C. Depreciation and amortisation	0.00	0.00
031	**D. Generation , administration and other expenses**	**0.00**	**0.00**
032	Power charges	0.00	0.00
033	Less: Recovered from contractors & employees	0.00	0.00
034	**Sub-total(Net power charges)**	**0.00**	**0.00**
035	Water charges	0.00	0.00
036	Rent	0.00	0.00
037	Repairs & maintenance	0.00	0.00
038	Buildings	0.00	0.00
039	Construction equipment	0.00	0.00
040	Others	0.00	0.00
041		0.00	0.00
042	Insurance	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 43 TO THE FS--EXPENDITURE DURING CONSTRUCTION PERIOD (NET)

(Amount in ₹)

	For the Year ended	31.03.2021	31.03.2020
043	Rates and taxes	0.00	0.00
044	Communication expenses	0.00	0.00
045	Travelling expenses	0.00	0.00
046	Tender expenses	0.00	0.00
047	Less: Income from sale of tenders	0.00	0.00
048	**Sub-total (Net tender expenses)**	**0.00**	**0.00**
049	Advertisement and publicity	0.00	0.00
050	Security expenses	0.00	0.00
051	Entertainment expenses	0.00	0.00
052	Guest house expenses	0.00	0.00
053	Less: Receipt from guest house	0.00	0.00
054	**Sub-total (Net Guest House Expenses)**	**0.00**	**0.00**
055	Education expenses	0.00	0.00
056	Brokerage & Commission	0.00	0.00
057	Books and periodicals	0.00	0.00
058	Community development expenses	0.00	0.00
059	Professional charges and consultancy fee	0.00	0.00
060	Legal expenses	0.00	0.00
061	EDP Hire and other charges	0.00	0.00
062	Printing and stationery	0.00	0.00
063	Miscellaneous expenses	0.00	0.00
064	**Total (D)**	**0.00**	**0.00**
065	**Total (A+B+C+D)**	**0.00**	**0.00**
066	**E. Less: Other Income**	**0.00**	**0.00**
067	Interest from	0.00	0.00
068	Indian banks	0.00	0.00
069	Foreign banks	0.00	0.00
070	Others	0.00	0.00
071	Contractors	0.00	0.00
072	Hire charges	0.00	0.00
073	Sale of scrap	0.00	0.00
074	Exchange Differences	0.00	0.00
075	Miscellaneous income	0.00	0.00
076	**TOTAL (E)**	**0.00**	**0.00**
077	F. Net actuarial gain/loss OCI	0.00	0.00
078		0.00	0.00
079	**GRAND TOTAL (A+B+C+D-E+F)**	**0.00**	**0.00**
080		0.00	0.00
081	*** Balance carried to Capital Work-in-progress - (Note 3)**	**0.00**	**0.00**

पवन देव जमाल/PAWAN DEV JAMTA
Sr. Manager (Accounts)
NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 43A TO THE FS--EDC- COAL MINING

(Amount in ₹)

	For the Year ended	31.03.2021	31.03.2020
001	**EDC- Coal Mining**	0.00	0.00
002	A. Employee benefits expense	0.00	0.00
003	Salaries and wages	476,327.30	139,367,194.57
004	Contribution to provident and other funds	4,154.76	12,401,501.66
005	Unwinding of deferred payroll expenses	0.00	0.00
006	Staff welfare expenses	3,355,652.98	24,778,831.47
007	**Total (A)**	**3,836,135.04**	**176,547,527.70**
008	**B. Finance Costs**	0.00	0.00
009	Finance charges on financial liabilities measured at amortised cost	0.00	0.00
010	Bonds	456,212,030.31	346,933,836.17
011	Foreign currency term loans	0.00	0.00
012	Rupee term loans	492,040,922.62	582,298,930.01
013	Foreign currency bonds/notes	0.00	0.00
014	Unwinding of discount on account of vendor liabilities	0.00	78,911,380.03
015	Others	0.00	0.00
016		0.00	0.00
017	Other Borrowings Costs	0.00	0.00
018	Guarantee Commission	0.00	0.00
019	Management Fees/Arrangers Fees	0.00	0.00
020	Commitment charges/Exposure Premium	0.00	0.00
021	Legal Expenses on foreign currency loans	0.00	0.00
022	Foreign currency bonds/notes expenses	0.00	0.00
023	Foreign Credit Insurance Premium	0.00	0.00
024	Upfront Fee	0.00	0.00
025	Exchange Differences	0.00	0.00
026	Others	0.00	501,772.93
027	Exchange differences regarded as adjustment to interest cost	0.00	0.00
028	**Total (B)**	**990,252,952.93**	**1,008,645,921.14**
029		0.00	0.00
030	C. Depreciation and amortisation	406,083.05	63,687,923.24
031	**D. Generation , administration and other expenses**	**0.00**	**0.00**
032	Power charges	640,464.76	5,268,602.15
033	Less: Recovered from contractors & employees	507,028.28	26,279.63
034	**Sub-total(Net power charges)**	**133,436.48**	**5,242,322.32**
035	Water charges	0.00	0.00
036	Rent	1,800,446.56	683,271.11
037	Repairs & maintenance	0.00	0.00
038	Buildings	713,483.94	3,910,751.43
039	Construction equipment	112,100.00	0.00
040	Others	60,227.55	1,976,160.79
041	Cost of Captive Coal	0.00	182,373,465.28
042	Insurance	[illegible]	[illegible]
043	Rates and taxes	[illegible]	5,646,940.71

Locked: 15.05.2021 - 00:15:41
Run on: 15.05.2021 - 00:18:44 Version: 0

Page 1 of 2

PAKRI BARWADIH COAL MINE

NOTE NO. 43A TO THE FS--EDC- COAL MINING

(Amount in ₹)

	For the Year ended	31.03.2021	31.03.2020
044	Communication expenses	482,856.45	4,034,706.42
045	Travelling expenses	11,375.75	10,186,431.76
046	Tender expenses	0.00	0.00
047	Less: Income from sale of tenders	1,768.77	94,279.23
048	**Sub-total (Net tender expenses)**	**-1,768.77**	**-94,279.23**
049	Advertisement and publicity	0.00	645,545.54
050	Security expenses	3,359,937.07	33,698,529.88
051	Entertainment expenses	120,559.27	1,448,116.34
052	Guest house expenses	530,653.61	2,497,385.26
053	Less: Receipt from guest house	1,143.30	22,736.01
054	**Sub-total (Net Guest House Expenses)**	**529,510.31**	**2,474,649.24**
055	Education expenses	0.00	0.00
056	Brokerage & Commission	0.00	0.00
057	Books and periodicals	0.00	4,397.80
058	Community development expenses	0.00	0.00
059	Professional charges and consultancy fee	1,453,816.15	27,894,960.30
060	Legal expenses	0.00	0.00
061	EDP Hire and other charges	19,247.65	577,118.13
062	Printing and stationery	0.00	259,999.78
063	Miscellaneous expenses	2,123,684.94	21,093,797.16
064	**Total (D)**	**11,834,219.60**	**-62,656,203.05**
065	**Total (A+B+C+D)**	**1,006,329,390.62**	**1,186,225,169.03**
066	**E. Less: Other Income**	**0.00**	**0.00**
067	Interest from	0.00	0.00
068	Indian banks	0.00	0.00
069	Foreign banks	0.00	0.00
070	Others	0.00	0.00
071	Contractors	1,844,079.38	0.00
072	Hire charges	0.00	0.00
073	Sale of scrap	0.00	0.00
074	Exchange Differences	0.00	0.00
075	Miscellaneous Income	29,977.19	65,930.00
076	**TOTAL (E)**	**1,874,056.57**	**65,930.00**
077	F. Net actuarial gain/loss OCI	-2,406.82	2,814,712.72
078		0.00	0.00
079	**GRAND TOTAL (A+B+C+D-E+F)**	**1,004,452,927.23**	**1,188,773,951.75**
080		0.00	0.00
081	*** Balance carried to Capital Work-in-progress - (Note 3)**	**1,004,452,927.23**	**1,188,773,951.75**

PAKRI BARWADIH COAL MINE

NOTE NO. 44-A TO THE FINANCIAL STATEMENTS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	Balance sheet	0.00	0.00
002	Freehold land for which conveyancing of the title is awaiting completion of legal formalities	0.00	0.00
003	(a) area (in acres)	501.85	531.13
004	(b) value (in rs)	2,625,840,950.00	2,929,043,870.00
005	Right-of-use land for which execution of lease deed is awaiting completion of legal formalities	0.00	0.00
006	(a) area (in acres)	0.00	0.00
007	(b) value (in rs)	0.00	0.00
008	Right-of-use land acquired on perpetual lease and accordingly not amortised	0.00	0.00
009	(a) area (in acres)	0.00	0.00
010	(b) value (in rs.)	0.00	0.00
011	Land in physical possesession of the company which has not been shown in the books pending settlement of price (in acres)	0.00	0.00
012	Deposit with government authorities towards land in possession of the company included in cost of land which is subject to adjus	0.00	0.00
013	**Land not in possession of the company**	**0.00**	**0.00**
014	(a) area (in acres)	0.00	0.00
015	-Freehold	0.00	0.00
016	-Right of Use	0.00	0.00
017	(b) value (in rs)	0.00	0.00
018	-Freehold	0.00	0.00
019	-Right of Use	0.00	0.00
020	Right-of-use buildings pending completion of legal formalities - value (in rs.)	0.00	0.00
021	Estimated amount of contracts remaining to be executed on capital account and not provided for	0.00	0.00
022	Property, plant & equipment	3,336,817,908.00	10,871,513,065.31
023	Intangible assets	0.00	0.00
024	Details of precommissioning expenditure	0.00	0.00
025	(a) precommissioning expenses	0.00	0.00
026	(b) precommissioning income	0.00	0.00
027	(c) net precommissioning expenditure	0.00	0.00
028		0.00	0.00
029		0.00	0.00
030		0.00	0.00
031	Exchange rate variation taken to revenue during the year (with -ve sign, if favourable)	0.00	0.00
045	Exchange rate variation capitalised during the year (with -ve sign, if favourable)	0.00	0.00
047	Leases as Lessee	0.00	0.00
048	Leases classified as Right to Use	0.00	0.00
049	A) Obligation towards Minimum Lease Payments (undiscounted)	0.00	0.00
050	3 months or less (A)	23,416,[illegible]	131,824,548.00

PAWAN DEV JAMTA
Dy. Chief Manager (Commercial)
NTPC LIMITED
Sector-24, Noida-201301 (U.P.)

	As at	31.03.2021	31.03.2020
051	3-12 Months (B)	66,530,793.00	97,424,667.00
052	1-2 Years (C)	94,410,742.00	137,879,086.00
053	2-5 Years (D)	339,837,076.00	474,466,272.01
054	More than 5 Years (E)	4,472,626,823.00	7,601,572,839.00
055	**Total (A+B+C+D+E)**	**4,996,521,464.00**	**8,443,169,441.01**
056	Opening Balance of Lease Liabilities (A)	2,750,021,516.56	0.00
057	- Additions in lease liabilities (B)	-1,008,494,499.56	2,556,977,005.01
058	- Interest cost during the year (C)	137,936,131.00	212,074,327.00
059	- Payment of lease liabilities (D)	159,420,344.00	21,029,814.00
060	**Closing Balance of Lease Liabilities (A+B+C-D)**	**1,720,042,805.01**	**2,750,021,516.01**
061	Current Lease Liabilities	52,981,244.72	110,946,720.00
062	Non Current Lease Liabilities	1,667,161,561.29	2,639,074,796.01
063	Depreciation and amortisation expense for right-of-use assets	427,268,704.00	437,843,518.42
064	Short Term Leases	0.00	0.00
065	A) Rent	0.00	0.00
066	Company lease accomodation - executives	746,143.68	825,196.69
067	Company lease accomodation - directors	0.00	0.00
068	Others	4,988,125.00	3,085,408.00
069	**Total**	**5,734,268.68**	**3,910,604.69**
070	Cash Outflow from Leases	159,420,344.00	24,940,418.69
071	B) (i) receipts from sub-lease of office buildings	0.00	0.00
072	(ii) receipts from sub-lease of helicopter	0.00	0.00
073	**Leases as Lessor**	**0.00**	**0.00**
074	**Finance Leases**	**0.00**	**0.00**
075	Finance Income on Net Investment in Lease	0.00	0.00
076	Income Related to Variable Lease Payments	0.00	0.00
077		0.00	0.00
078	**Undiscounted Lease payments to be received**	**0.00**	**0.00**
079	Less than one year (A)	0.00	0.00
080	Between one and two years (B)	0.00	0.00
081	Between two and three years (C)	0.00	0.00
082	Between three and four years (D)	0.00	0.00
083	Between four and five years (E)	0.00	0.00
084	More than five years (F)	0.00	0.00
085	**Total minimum lease payments (A+B+C+D+E+F)**	**0.00**	**0.00**
086	Less amounts representing unearned finance income	0.00	0.00
087	Present value of minimum lease payments	0.00	0.00
088		0.00	0.00
089	**Operating Leases**	**0.00**	**0.00**
090	Lease Income	0.00	0.00
091	Income Related to Variable Lease Payments	0.00	0.00
092		0.00	0.00
093	**Undiscounted Lease payments to be received**	**0.00**	**0.00**
094	Less than one year (A)	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 44-A TO THE FINANCIAL STATEMENTS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
095	Between one and two years (B)	0.00	0.00
096	Between two and three years (C)	0.00	0.00
097	Between three and four years (D)	0.00	0.00
098	Between four and five years (E)	0.00	0.00
099	More than five years (F)	0.00	0.00
100	**Total minimum lease payments (A+B+C+D+E+F)**	**0.00**	**0.00**
101	Borrowing cost capitalised during the year	858,283,456.00	1,008,549,736.73
102	Revenue grants recognized during the year	0.00	0.00
103	Revenue expenditure on research and development	0.00	0.00
104	Capital expenditure on research and development	0.00	0.00
105	Expenditure on sustainibility development - capital	0.00	0.00
106	Expenditure on csr- capital	0.00	0.00
107	Csr amount spent during the year, yet to be paid in cash	0.00	0.00
108	Constn/acquisition of any asset	0.00	0.00
109	On purpose other than above	0.00	0.00
110		0.00	0.00
111	Disclosure under msmed act 2006	0.00	0.00
112	(i) (a) the principal amount remaining unpaid as at year end	3,712,755.00	55,255,181.01
113	(i) (b) interest due there on remaining unpaid as at Year end	0.00	0.00
114	(ii) the amount of interest paid by the buyer in terms of section 16, along with the amounts of the payment made to the supplier	0.00	0.00
115	(iii) the amount of interest due and payable for the period of delay in making payment(which has been paid but beyond the appoin	0.00	0.00
116	(iv) the amount of interest accrued and remaining unpaid at the end of the year; and	0.00	0.00
117	(v) the amount of further interest remaining due and payable even in the succeeding years, until such date when the interest due	0.00	0.00
118	Amount of inventories recognized as an expense (including fuel)	10,876,383,108.68	13,794,783,256.37
119	Amount of inventories capitalised as overhauling assets out of 112 above	0.00	0.00
120	Amount capitalised as edc out of 112 above	0.00	476,012.00
133	Value of Imported Material Consumed during the Year	0.00	0.00
134		0.00	0.00
135	Contingent liabilities	0.00	0.00
136	A. Claims against the company not acknowledged as debts in respect of :	0.00	0.00
137	(i)Capital works	4,230,473,675.00	4,230,473,675.00
138	(ii)Land compensation cases	0.00	0.00
139	(iii)Others by state authorities towards:-	0.00	0.00

Locked: 15.05.2021 - 00:15:53
Run on: 15.05.2021 - 00:20:13 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 44-A TO THE FINANCIAL STATEMENTS

(Amount in ₹)

	As at	31.03.2021	31.03.2020
140	(a) Water royalty / water charges / nala tax	0.00	0.00
141	(b) Diversion of land / building permission fees	0.00	0.00
142	(c) Other demands by state authorities	0.00	0.00
143	(iv) Others by fuel companies	0.00	0.00
144	(a) Disputes related to grade slippage-third party sampling	0.00	0.00
145	(b) Surface transportation charges on coal	0.00	0.00
146	(c) Take or pay claim - Gas stations	0.00	0.00
147	(d) Other claims by fuel companies not acknowledged as debt	0.00	0.00
149	B.Disputed tax demands	0.00	0.00
150	(i) Income tax	0.00	0.00
151	(ii) Excise duty	0.00	0.00
152	(iii) Sales tax	0.00	0.00
153	(iv) Service tax	0.00	0.00
154	(v) Entry tax	0.00	0.00
155	C. Others	0.00	0.00
156	**Total**	**4,230,473,675.00**	**4,230,473,675.00**
157	D. Possible reimbursement on account of contingent liabilities	0.00	0.00
158	(i) Capital works	0.00	0.00
159	(ii)Land compensation cases	0.00	0.00
160	(iii)Others (by state authorities)	0.00	0.00
161		0.00	0.00
162	(iv) Others by fuel companies	0.00	0.00
163	(v) Disputed income tax demand	0.00	0.00
164	(vi) Disputed tax demands -others	0.00	0.00
165	(vii) Others	0.00	0.00
167	**Total**	**0.00**	**0.00**
168	E.AMOUNT PAID UNDER PROTEST/ADJUSTED BY AUTHORITIES - TAX CASES	0.00	0.00
169		0.00	0.00
170	F.CONTINGENT ASSETS	0.00	0.00
171		0.00	0.00
172		0.00	0.00
173		0.00	0.00
175	Previous year figures have been regrouped/rearranged wherever necessary	0.00	0.00

DEEPAWAN DEV JAMTA
Dy. General Manager (F&A)
O/o ED (PKBA) / NTPC LIMITED
SOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 44-B TO THE FS--RPD DISCLOSURE- TRANSACTIONS DURING THE PERIOD (Amount in ₹)

	For the Year ended	31.03.2021	31.03.2020
001	**1) Transactions during the year- subsidiaries**	**0.00**	**0.00**
002	Contracts for works/services for services received by the company	0.00	0.00
003	Contracts for works/services for services provided by the company	0.00	0.00
004	Deputation of employees	0.00	0.00
005	Purchases or sales of goods	1,245,583,630.00	2,548,103,557.00
006	Purchases or sales of property and other assets	0.00	0.00
007	**Sub-total**	**1,245,583,630.00**	**2,548,103,557.00**
008		0.00	0.00
009	Dividend received	0.00	0.00
010	Equity contributions made	0.00	0.00
011	Share application money pending allotment	0.00	0.00
012	Loans granted	0.00	0.00
013	Guarantees received	0.00	0.00
014	Guarantees provided	0.00	0.00
015	**Sub-total**	**0.00**	**0.00**
016		0.00	0.00
017	**Transactions during the year- jvs**	**0.00**	**0.00**
018	Contracts for works/services for services received by the company	159,801,092.00	143,051,743.00
019	Contracts for works/services for services provided by the company	0.00	0.00
020	Deputation of employees	0.00	0.00
021	Purchases or sales of goods	0.00	0.00
022	Purchases or sales of property and other assets	0.00	0.00
023	**Sub-total**	**159,801,092.00**	**143,051,743.00**
024		0.00	0.00
025	Dividend received	0.00	0.00
026	Equity contributions made	0.00	0.00
027	Share application money pending allotment	0.00	0.00
028	Loans granted	0.00	0.00
029	Guarantees received	0.00	0.00
030	Guarantees provided	0.00	0.00
031	**Sub-total**	**0.00**	**0.00**
032	Total	1,405,384,722.00	2,691,155,300.00
033	**Transactions with post employment benefit plans**	**0.00**	**0.00**
034	Contributions made during the year	0.00	0.00
035	**Compensation to key management personnel**	**0.00**	**0.00**
036	Short term employee benefits	0.00	0.00
037	Post employment benefits	0.00	0.00
038	Other long term benefits	0.00	0.00
039	Termination benefits	0.00	0.00
040	Share based payments	0.00	0.00
041	**Sub-total**	**0.00**	**0.00**
042	**Transactions with the related parties under the**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 44-B TO THE FS--RPD DISCLOSURE- TRANSACTIONS DURING THE PERIOD

(Amount in ₹)

	For the Year ended	31.03.2021	31.03.2020
	control of the same government:		
043	Coal india ltd.. And its subsidiaries- purchase of coal	0.00	0.00
044	Singareni coalfields ltd- purchase of coal	0.00	0.00
045	**Bhel ltd.**	**0.00**	**0.00**
046	Purchase of equipment, supply & erection services	0.00	0.00
047	Purchase of spares	0.00	0.00
048	Maintenance services	0.00	0.00
049	**Sub-total**	**0.00**	**0.00**
050	Gail (i) ltd. Supply of natural gas	0.00	0.00
051	Iocl supply of oil products	0.00	0.00
052	Bpcl-supply of natural gas and oil	0.00	0.00
053	Sail-supply of steel and iron products	0.00	0.00
054	Other entities	0.00	0.00
055	Purchase of equipments & erection services	0.00	2,505,999.10
056	Purchase of spares	0.00	0.00
057	Maintenance services	47,486,378.82	96,326,107.01
058		0.00	0.00
059	**Total**	**47,486,378.82**	**98,832,106.11**
060	**Transaction with other**	**0.00**	**0.00**
061	**Transaction with ntpc education and research society and ntpc foundation**	**0.00**	**0.00**
062	- transactions during the year	0.00	0.00
063	ADDITIONAL TRANSACTIONS WITH RELATED PARTIES FOR PSU	0.00	0.00
064	**Compensation to key management personnel (including co secretary/ cmd and non executive directors)**	**0.00**	**0.00**
065	Short term employee benefits	0.00	0.00
066	Post employment benefits	0.00	0.00
067	Other long term benefits	0.00	0.00
068	Directors sitting fee	0.00	0.00
069	Termination benefits	0.00	0.00
070	Share based payments	0.00	0.00
071	Bank guarntee received from joint venture companies	0.00	0.00
072	Additional Transactions with GAIL	0.00	0.00
073		0.00	0.00
074		0.00	0.00
075		0.00	0.00

पवन देव जमाता/PAWAN DEV JAMTA
Deputy Chief of Manager (Coal Services)
एनटीपीसी लिमिटेड/NTPC LIMITED
A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 44-C TO THE FS--RPD DISCLOSURE- OUTSTANDING BALANCES

(Amount in ₹)

	As at	31.03.2021	31.03.2020
001	**Outstanding balance**	**0.00**	**0.00**
002	**Amount recoverable towards loans**	**0.00**	**0.00**
003	- From Subsidiaries	0.00	0.00
004	- From JVC	0.00	0.00
005	- From KMP	0.00	0.00
006	- From Others	0.00	0.00
007	Sub-total	0.00	0.00
008	**Amount recoverable other than loan**	**0.00**	**0.00**
009	- from subsidiaries	0.00	783,345,193.00
010	- from joint ventures	0.00	0.00
011	- from key managerial personnel	0.00	0.00
012	- from post employment benfit plans	0.00	0.00
013	- from others	0.00	0.00
014	Sub-total	0.00	783,345,193.00
015	**Amount payable**	**0.00**	**0.00**
016	- from subsidiaries	0.00	0.00
017	- from joint ventures	15,249,722.00	2,901,997.55
018	- from key managerial personnel	0.00	0.00
019	- from post employment benfit plans	0.00	0.00
020	- from others	0.00	0.00
021	Sub-total	15,249,722.00	2,901,997.55
022		0.00	0.00

Audited Financial Statements as on 31.03.2022



एनटीपीसी NTPC
A Maharatna Company

PAKRI BARWADIH COAL MINE

BALANCE SHEET

(Amount in ₹)

As at	Note	31.03.2022	31.03.2021
ASSETS		0.00	0.00
		0.00	0.00
		0.00	0.00
NON-CURRENT ASSETS			
PROPERTY, PLANT & EQUIPMENT	3	34,301,618,534.08	25,217,378,033.90
CAPITAL WORK-IN-PROGRESS	3	5,278,341,209.08	15,833,443,349.67
INTANGIBLE ASSETS	4	2,505,122.14	1,382,131.34
INTANGIBLE ASSETS UNDER DEVELOPMENT	5	993,760,373.19	560,834,749.19
FINANCIAL ASSETS		0.00	0.00
i) INVESTMENTS IN SUBSIDIARIES AND JOINT VENTURES	6	0.00	0.00
ii) INVESTMENTS	7	0.00	0.00
iii) TRADE RECEIVABLES	8	0.00	0.00
iv) LOANS	9	45,939,202.40	31,181,309.54
v) OTHER FINANCIAL ASSETS	10	142,900,340.59	62,569,100.00
OTHER NON-CURRENT ASSETS	11	1,331,044,405.21	1,240,391,358.11
TOTAL NON-CURRENT ASSETS		**43,344,692,287.89**	**42,779,185,575.24**
		0.00	0.00
CURRENT ASSETS		0.00	0.00
INVENTORIES	12	274,585,351.74	671,919,038.21
FINANCIAL ASSETS		0.00	0.00
i) INVESTMENTS	13	0.00	0.00
ii) TRADE RECEIVABLES	14	0.00	19,439,100.45
iii) CASH AND CASH EQUIVALENTS	15	56,811,892.04	576,401,600.97
iv) BANK BALANCES (OTHER THAN CASH AND CASH EQUIVALENTS)	16	0.00	0.00
vi) LOANS	17	22,165,592.91	17,605,587.01
vii) OTHER FINANCIAL ASSETS	18	905,351,243.43	291,840,525.01
CURRENT TAX ASSETS (NET)		0.00	0.00
		0.00	0.00
OTHER CURRENT ASSETS	19	2,865,697,792.68	3,068,982,144.35
		0.00	0.00
TOTAL CURRENT ASSETS		**4,349,902,326.42**	**4,642,109,092.24**
REGULATORY DEFERRAL ACCOUNT DEBIT BALANCES	20	0.00	0.00
TOTAL ASSETS		**48,091,595,017.53**	**47,421,274,577.08**
		0.00	0.00
EQUITY AND LIABILITIES		0.00	0.00
EQUITY		0.00	0.00
EQUITY SHARE CAPITAL	21	0.00	0.00
OTHER EQUITY	22	1,199,237,973.72	444,781,825.19
TOTAL EQUITY		**1,199,237,973.72**	**444,781,825.19**
		0.00	0.00
LIABILITIES		0.00	0.00
NON-CURRENT LIABILITIES		0.00	0.00
FINANCIAL LIABILITIES		0.00	0.00
a. BORROWINGS	23	0.00	0.00
iii) LEASE LIABILITIES	23A	1,673,284,000.00	1,849,303,124.00
iii) TRADE PAYABLES		0.00	0.00

ASHWINI KUMAR

DIRECTOR(FINANCE) DEV JANTE
DIC - PAKRI BARWADIH COAL MINE
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Locked: 24.04.2022 - 12:02:48
Run on: 24.04.2022 - 13:00:32 Version: 0

1006

एनटीपीसी
NTPC
A Maharatna Company

PAKRI BARWADIH COAL MINE

BALANCE SHEET

(Amount in ₹)

	As at	Note	31.03.2022	31.03.2021
049	- TOTAL OUTSTANDING DUES OF MICRO AND SMALL ENTERPRISES	24	44,287.08	0.00
050	- TOTAL OUTSTANDING DUES OF CREDITORS OTHER THAN MICRO AND SMALL ENTERPRISES	24	5,751,196.93	5,841.00
051	(v) OTHER FINANCIAL LIABILITIES	25	0.00	0.00
052	PROVISIONS	26	4,043,746,043.00	2,453,110,251.00
053	DEFERRED TAX LIABILITIES (NET)	27	0.00	0.00
054	OTHER NON-CURRENT LIABILITIES	28	0.00	0.00
055			**0.00**	**0.00**
056	**TOTAL NON-CURRENT LIABILITIES**		**5,725,537,583.99**	**4,183,416,550.27**
057			**0.00**	**0.00**
058	**CURRENT LIABILITIES**		**0.00**	**0.00**
059	**FINANCIAL LIABILITIES**		**0.00**	**0.00**
060	i) BORROWINGS	29	0.00	0.00
061	ii) LEASE LIABILITIES	29A	80,889,139.00	10,759,702.00
062	**iii) Trade Payables**		**0.00**	**0.00**
063	- TOTAL OUTSTANDING DUES OF MICRO AND SMALL ENTERPRISES	30	17,580,330.50	5,728,114.15
064	- TOTAL OUTSTANDING DUES OF CREDITORS OTHER THAN MICRO AND SMALL ENTERPRISES	30	1,410,032,019.27	1,895,291,214.89
065	iv) OTHER FINANCIAL LIABILITIES	31	3,721,625,052.40	3,863,085,738.14
066	OTHER CURRENT LIABILITIES	32	793,578,646.91	791,222,403.79
067	PROVISIONS	33	3,212,127,558.32	3,258,803,684.15
068	CURRENT TAX LIABILITIES (NET)	34	0.00	0.00
069			**0.00**	**0.00**
070	**TOTAL CURRENT LIABILITIES**		**10,235,729,354.90**	**11,878,001,891.79**
071			**0.00**	**0.00**
072	DEFERRED REVENUE	35	0.00	0.00
073	REGULATORY DEFERRAL ACCOUNT CREDIT BALANCES	36	0.00	0.00
074	INTER UNIT ACCOUNTS		31,742,260,135.71	20,596,094,360.85
075			**0.00**	**0.00**
076	**TOTAL EQUITY AND LIABILITIES**		**44,891,565,017.92**	**47,421,274,577.56**
077	Significant Accounting Policies as per Note 1		0.00	0.00
078			0.00	0.00
079	The accompanying notes 1 to 44 form an integral part of these financial statements.		0.00	0.00
080			**0.00**	**0.00**

RADHEY SHYAM AGARWAL
(Auditor Initial & Stamp)

AMAREND RA KUMAR
(Head of Finance)

VENKATRAMAN A REDDY MUTHYALA
(Head of Unit)

पवन देव जामता/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्य)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Locked: 24.04.2022 - 12:02:48
Run on: 24.04.2022 - 13:00:32 Version: 0

1001

एनटीपीसी NTPC
A Maharatna Company

PAKRI BARWADIH COAL MINE

STATEMENT OF PROFIT AND LOSS

(Amount in ₹)

	For the Year ended	Note	31.03.2022	31.03.2021
001	**Revenue**		**0.00**	**0.00**
002	Revenue from operations	37	18,521,034,708.74	12,820,620,830.53
003	Other income	38	32,054,040.44	35,602,198.01
005	**Total Income**		**18,553,089,749.22**	**12,856,223,121.54**
007	**Expenses**		**0.00**	**0.00**
008	Fuel including cost of captive coal	39A	15,709,897,171.89	11,107,798,740.40
009	Employee benefits expense	39	431,446,575.37	543,311,615.04
010	Electricity purchased for trading		0.00	0.00
011	Finance costs	40	338,664,090.37	788,417,224.10
012	Depreciation and amortisation expenses	41	233,864,810.94	192,948,229.14
013			0.00	0.00
014	Other expenses	42	882,074,290.08	906,074,316.52
015	CC expenses charge to revenue		444,000,349.31	348,886,809.42
016	Less: Unit expenses transferred to CC		0.00	0.00
017	**Total expenses**		**17,808,452,284.66**	**13,283,343,139.20**
020	**Profit before exceptional items & tax**		**745,428,464.24**	**-427,119,817.66**
021	Exceptional items		0.00	0.00
024	**Profit before tax**		**745,428,464.24**	**-427,119,817.66**
027	**Tax expense:**		**0.00**	**0.00**
028	Current tax		0.00	0.00
031	Deferred tax		0.00	0.00
034			0.00	0.00
035	**Total Tax expense**		**0.00**	**0.00**
036	**Profit for the period before regulatory deferral account balances**		**745,428,464.24**	**-427,119,817.66**
037	**Movement in regulatory deferral account balances**		**0.00**	**0.00**
038	Regulatory deferred account - deferred		0.00	0.00
039	Others		0.00	0.00
040	Tax impact on Regulatory deferral account balances		0.00	0.00
041	**Movement in Regulatory deferred account balances (Net of Tax)**		**0.00**	**0.00**
042	**Profit for the period/ year**		**745,428,464.24**	**-427,119,817.66**
043	**Other comprehensive income**		**0.00**	**0.00**
044	**(A) Items that will not be reclassified to profit or loss**		**0.00**	**0.00**
045	- Net gains/(losses) on fair value of equity instruments through other comprehensive income		0.00	0.00
046	Income tax on above that will not be reclassified to profit or loss		0.00	0.00
047	- Net actuarial gains/(losses) on defined benefit plans		-1,891,310.08	-4,482,307.35
048	Income tax on above that will not be reclassified to profit or loss		0.00	0.00
052		43	0.00	0.00
053	**Other comprehensive income for the year, net of income tax**		**-1,891,310.08**	**-4,482,307.35**
054			0.00	0.00
055	**Total Comprehensive Income for the year**		**743,536,853.98**	**-[illegible]**
059			0.00	0.00

Locked: 24.04.2022 - 12:02:46
Run on: 24.04.2022 - 13:00:59 Version: 0

AMARENDRA KUMAR

एनटीपीसी
NTPC
A Maharatna Company

PAKRI BARWADIH COAL MINE

STATEMENT OF PROFIT AND LOSS

(Amount in ₹)

	For the Year ended	Note	31.03.2022	31.03.2021
070	**Earnings per equity share**		**0.00**	**0.00**
071	Basic & Diluted		0.00	0.00
072	Significant Accounting Policies		0.00	0.00
073	Expenditure during construction period (Net)/Dec. of coal mines (net) KOJASA		0.00	0.00
074	The accompanying notes 1 to 44 form an integral part of these financial statements.		0.00	0.00

RADHEY SHYAM AGARWAL

(Auditor Initial & Stamp)

AMAREND RA KUMAR

(Head of Finance)

VENKATRAMANA REDDY MUTHYALA

(Head of Unit)

Locked: 24.04.2022 - 12:02:46
Run on: 24.04.2022 - 13:00:59 Version: 0

1903

Page 2 of 2

PAKRI BARWADIH COAL MINE

OTHER COMPREHENSIVE INCOME

(Amount in ₹)

	For the Year ended	31.03.2022	31.03.2021
001		0.00	0.00
002	**Other comprehensive income**	**0.00**	**0.00**
003	**(A) Items that will not be reclassified to profit or loss**	**0.00**	**0.00**
004	- Net gains/(losses) on fair value of equity instruments through other comprehensive income	0.00	0.00
005	Income tax on above that will not be reclassified to profit or loss	0.00	0.00
006	- Net actuarial gains/(losses) on defined benefit plans	-1,891,510.68	-4,482,307.35
007	Income tax on above that will not be reclassified to profit or loss	0.00	0.00
008		0.00	0.00
009	(B) Items that will be reclassified to profit or loss	0.00	0.00
010	Income tax relating to above items that will be reclassified to profit or loss	0.00	0.00
011		0.00	0.00
012	**Other comprehensive income for the year, net of income tax**	**-1,891,510.68**	**-4,482,307.35**
013		0.00	0.00
014	**Total comprehensive income for the year (A+B)**	**-1,891,510.68**	**-4,482,307.35**

पवन देव जमाता/PAWAN DEV JAMTA
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

Note forming part of Balance Sheet
Note 2 : Property, Plant And Equipment
Business Area :1040

(Amount in Rupees)

Asset Class	Opening Gross Block As At 01.04.2021	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2022	Opening Depreciation As At 01.04.2021	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2022	Net Block As At 31.03.2022	Net Block As At 31.03.2021
1 TANGIBLE ASSETS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 Land - (Including development/ expenses)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 Freehold	[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00	0.00	0.00	[illegible]	[illegible]
4 Right of Use	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
5 Submergence	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6 Right of use - Coal Mining Area Land	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
7 Roads,Bridges, culverts & fortpaths	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
8 Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9 Furniture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 Misc. plant	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11 Others	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12 Right of Use	[illegible]	0.00	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
13 Temporary erections	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
14 Water Supply, drainage & sewerage system	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
15 Hydraulic works, barrages, dams, tunnels, civil power channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16 MGR track and signalling system	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17 Railway siding	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18 Earth work excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19 Plant and machinery(including associated civil works) Shared Assets	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] Version : 0 - Status Locked] Date : 04.04.2022]

[illegible] DEV JHANTA
[illegible]
[illegible]
[illegible]
[illegible]
EDC, A.M. Section-24, Noida-201301 (U.P.)

Note forming part of Balance Sheet
Note 2 : Property, Plant And Equipment
Business Area :1040

(Amount in Rupees)

Asset Class	Opening Gross Block As At 01.04.2021	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2022	Opening Depreciation As At 01.04.2021	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2022	Net Block As At 31.03.2022	Net Block As At 31.03.2021
20. Plant and machinery(Including accessories and civil works) (Right of Use Asset)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21. Furniture and Fixtures	2711210.20	7539400.00	0.00	10250832.20	1371955.81	1055377.44	0.00	2427333.25	7823498.95	1339254.39
22. Assets under 5 Yrs Scheme	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23. Vehicles including speedboats / helicopter (Owned)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24. Vehicles including speedboats / helicopter (Leased)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25. Office Equipment	2328800.14	3201241.00	3219888.00	8450129.14	2321448.63	3143622.00	3003738.00	2461332.63	5988796.51	7207351.51
26. DSP, WP machines and allied equipment	9393114.20	1388806.00	3539441.00	2642744.77	6293972.00	3714510.00	3539441.00	2868130.00	9805874.77	7807858.77
27. Construction equipments	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28. Electrical installations	87383378.00	2380399.00	0.00	89763847.00	12363831.00	6363839.00	0.00	18727666.00	71036181.00	75019547.00
29. Communication equipments	10884000.57	3224743.29	2311864.00	11796791.57	3410501.00	2446665.79	1911164.00	3946002.79	7850788.78	7473499.57
30. Medical equipments	884600.00	7303331.00	0.00	7994186.00	531811.00	705475.00	0.00	1237286.00	6756900.00	352789.00
31. Laboratory and scientific equipments	2817555.00	1516800.00	0.00	4334721.00	1317758.00	2199434.00	0.00	3517192.00	817529.00	1499797.00
32. Capital expenditure on assets not owned by the Company	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33. Assets of Government	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note forming part of Balance Sheet
Note 2 : Property, Plant And Equipment
Business Area :1040

(Amount in Rupees)

Asset Class	Opening Gross Block As At 01.04.2021	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2022	Opening Depreciation As At 01.04.2021	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2022	Net Block As At 31.03.2022	Net Block As At 31.03.2021
34 Loss/Gross Loss Government	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35 Loss Recoverable from DCP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36 Assets for non utilisation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37 (Loss) Adjusted from By non utilisation reserve fund	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38 Site Restoration Cost	[illegible]	0.00	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
39 Wrong Properties	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
Grand Total (Tangible)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Grand Total Prev Year (Tangible)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

1007

[illegible]/PAWAN DEV JAMTA
[illegible]
EOC, A-4A, Sector-24, Noida-201301 (U.P.)

Note forming part of Balance Sheet
Note 2 : Property, Plant And Equipment
Business Area :1040

(Amount in Rupees)

Details of Adjustments of Gross Block and Depreciation/Amortization				
Particulars	Gross Block		Depreciation/Amortization	
	Tangible As At: 31.03.2022	Tangible As At: 31.03.2021	Tangible As At: 31.03.2022	Tangible As At: 31.03.2021
Disposal of assets	(130326.70)	(123879.44)	(130326.70)	(123879.44)
Retirement of assets	0.00	0.00	0.00	0.00
Cost adjustments	0.00	1471326962.00	0.00	0.00
Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Depreciation on construction equipment capitalised as EDC	0.00	0.00	0.00	0.00
Prior Period Depreciation due to Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Special Depreciation (As per New Policy)	0.00	0.00	0.00	0.00
Transfer in out because of Inter Unit transfers	(1534471.33)	(8108326562.82)	352919.06	(126738608.97)
Others	0.00	0.00	0.00	0.00
TOTAL	**(1664798.03)**	**(6688126407.26)**	**222592.36**	**(126862488.41)**

Note :- Additions during the year includes capital expenditure towards CSR (in Rs.) 0.00

पवन देव जागरा / PAWAN DEV JAGRA
का कार्यालय / Office of the
Deputy General Manager (Accounts)
एन टी पी सी / NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Note forming part of Balance Sheet
Note 3: Capital-Work-in-Progress
Business Area: PAKRI BARWADIH COAL MINE

(Amount in Rupees)

Sl No	Asset Class	As At 01.04.2021	Addition	Deduction/ Adjustment	Capitalised	As At 31.03.2022
	1	2	3	4	5	6
1	CAPITAL WORK-IN-PROGRESS					
2	Development of land	[illegible]	[illegible]	[illegible]		[illegible]
3	Plants, fridges, cyberoil & reticulate	[illegible]	[illegible]	[illegible]	[illegible]	
4	Piling and foundation					
5	Buildings					
6	Non-Land					
7	Others	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	Temporary sections					
9	Plant roads, drainage and sewerage system	[illegible]	[illegible]	[illegible]		[illegible]
10	Hydraulic works, barrages, dams, sprinkle and power channel					
11	HOP track and signalling system					
12	Remote siding					
13	Earth dam covered					
14	Plant and equipment	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	Furniture and fixtures					
16	Vehicles					
17	Office equipment					
18	EDP/WP machines & admin equipment					
19	Construction equipments					
20	Electrical installations	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	Communication equipment	[illegible]		[illegible]		
22	Hospital equipments					
23	Laboratory and workshop equipments					
24	Assets under RBI, Subsidy of the GOP					
25	Capital expenditure on assets not owned by the company		[illegible]	[illegible]		
26	Expenditure towards development of coal mines	[illegible]	[illegible]			[illegible]
27	Survey/Investigation Consultancy & Supervision Chg					
28	Difference in exchange on foreign currency loans					

Report Date : 21.04.2022 10:30:08 Version : 0 - Status Locked (Date :) 3



Note forming part of Balance Sheet
Note 3: Capital-Work-in-Progress
Business Area: PAKRI BARWADIH COAL MINE

(Amount in Rupees)

Sl No.	Asset Class	As At 01.04.2021	Addition	Deduction/ Adjustment	Capitalized	As At 31.03.2022
	1	2	3	4	5	6
30	Expenditure towards diversion of forest land					
31	Pre-commissioning expenses (net)					
32	Pre-Permission Mining Project	[illegible]	[illegible]			[illegible]
33	Expenditure During Construction Period (net)					
34	LCCS : Allowed to stake white					
35	LCCS : Provided for Unavailable white					
36	Construction stores (At Cost)					
37	Steel					
38	Oil/Lubs					
39	Others	[illegible]	[illegible]	[illegible]		[illegible]
40	Sub-total	[illegible]	[illegible]	[illegible]		[illegible]
41	LCCS : Provided for shortages					
42	Sub-total	[illegible]	[illegible]	[illegible]		[illegible]
43	Total CWIP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
44						
45						
46	PREVIOUS YEAR TOTAL	[illegible]	[illegible]	[illegible]		[illegible]

Note:- Additions during the year includes capital expenditure towards CSR (in Rs.) : 0.00

Report Date : 11.05.2022 12:39:36 Version : 0 - Status Locked | Date : 1

2

पवन देव जायसा/PAWAN DEV JAMTA
एम.डी.सी.सी. (PAKRI BARWADIH COAL MINE)
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Note forming part of Balance Sheet
Note-4 Non Current Assets- Intangible Assets
Business Area : 1040

(Amount in Rupees)

Asset Class	Opening Gross Block As At 31.04.2021	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2022	Opening Depreciation As At 31.04.2021	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2022	Net Block As At 31.03.2022	Net Block As At 31.03.2021
INTANGIBLE ASSETS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 Right to Use Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 Others	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 Software	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
Grand Total (Intangible)	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
Grand Total (Net Total Intangible)	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]

Report Date : 24.04.2022 12:32:48 Version : 0 - Status Locked (Date : 24.04.2022)



पवन देव जमुना/PAWAN DEV JAMTA
[illegible]
Dep [illegible]
एन.टी.पी.सी. [illegible]/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Note forming part of Balance Sheet
Note-4 Non Current Assets- Intangible Assets
Business Area :1040

(Amount in Rupees)

Details of Adjustments of Gross Block and Depreciation/Amortization				
Particulars	**Gross Block**		**Depreciation/Amortization**	
	InTangible As At: 31.03.2022	**InTangible As At: 31.03.2021**	**InTangible As At: 31.03.2022**	**InTangible As At: 31.03.2021**
Disposal of assets	0.00	0.00	0.00	0.00
Retirement of assets	0.00	0.00	0.00	0.00
Cost adjustments	0.00	0.00	0.00	0.00
Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Depreciation on construction equipment capitalised as EDC	0.00	0.00	0.00	0.00
Prior Period Depreciation due to Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Special Depreciation u/s per New Policy	0.00	0.00	0.00	0.00
Transfer in/(out)because of Inter Unit transfers	0.00	0.00	0.00	0.00
Others	0.00	0.00	0.00	0.00
TOTAL	**0.00**	**0.00**	**0.00**	**0.00**

Note:- Additions during the year includes capital expenditure towards CSR (in Rs.) : 0.00

Note forming part of Balance Sheet
Note 5: Intangible Assets under Development
Business Area: PAKRI BARWADIH COAL MINE

(Amount in Rupees)

Sl No	Asset Class	As At 01.04.2021	Addition	Deduction/ Adjustment	Capitalised	As At 31.03.2022
	1	2	3	4	5	6
1	INTANGIBLE ASSETS UNDER DEVELOPMENT					
2	Software					
3	Right to use Offices					
4	Exploration and Evaluation Expenditure - Coal Mine	[illegible]	[illegible]			[illegible]
5	Expenditure wells in progress					
6	Less: Provision for exploratory wells in progress					
7	Total	[illegible]	[illegible]			[illegible]
8	PREVIOUS YEAR TOTAL					

Note:- Additions during the year includes capital expenditure towards CSR (in Rs.) : 0.00

Report Date: 14.04.2022 12:59:30 Version: 0 - Status: Latest | Case: 1

पवन देव जयन्ती/PAWAN DEV JAMTA
[illegible]
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

NOTE NO. 6 TO THE FS-NCA-INVESTMENTS IN SUBSIDIARIES & JOINT VENTURES

(Amount in ₹)

	As at	No. of shares	Face value	31.03.2022	31.03.2021
001	**NON CURRENT INVESTMENTS - INVESTMENTS IN SUBSIDIARIES AND JOINT VENTURES**			**0.00**	**0.00**
012	**EQUITY INSTRUMENTS - UNQUOTED-(FULLY PAID UP UNLESS OTHERWISE STATED, AT COST)**			**0.00**	**0.00**
013	**SUBSIDIARY COMPANIES**			**0.00**	**0.00**
014	PATRATU VIDYUT UTPADAN NIGAM LTD.			0.00	0.00
015	NTPC ELECTRIC SUPPLY COMPANY LTD.			0.00	0.00
016	NTPC VIDYUT VYAPAR NIGAM LTD.			0.00	0.00
017	NABINAGAR POWER GENERATING COMPANY LTD.			0.00	0.00
018	KANTI BIJLEE UTPADAN NIGAM LTD.			0.00	0.00
019	BHANTIYA RAIL BIJLEE COMPANY LTD.			0.00	0.00
020	NTPC MINING LTD (NML)			0.00	0.00
021	THDC INDIA LTD.			0.00	0.00
022	NEEPCO LTD.			0.00	0.00
023	NTPC SCMC Waste Solutions Pvt Ltd			0.00	0.00
024	NTPC Renewables Energy Ltd			0.00	0.00
025	Rurugiri Gas & Power Pvt. Limited (RGPPL)			0.00	0.00
026				0.00	0.00
027				0.00	0.00
028				0.00	0.00
029				0.00	0.00
030	**SUB TOTAL**			**0.00**	**0.00**
033	**JOINT VENTURE COMPANIES**			**0.00**	**0.00**
036	Utility Powertech Ltd			0.00	0.00
037	NTPC GE Power Services Pvt Ltd			0.00	0.00
038	NTPC-BAL Power Company Ltd			0.00	0.00
039	NTPC-Tamil Nadu Energy Company Ltd			0.00	0.00

पवन देव जगदीश/PAWAN DEV JAKITA
Deputy General Manager (Finance)
एन टी पी सी लिमिटेड / NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (UP)

NOTE NO. 6 TO THE FS-NCA-INVESTMENTS IN SUBSIDIARIES & JOINT VENTURES

(Amount in ₹)

	As at	No. of shares	Face value	31.03.2022	31.03.2021
062	Ratnagiri Gas & Power Pvt. Limited (RGPPL)			0.00	0.00
063	ARAVALI POWER COMPANY PRIVATE LTD			0.00	0.00
064				0.00	0.00
065	NTPC SAIL POWER PROJECTS PRIVATE LTD			0.00	0.00
066	MEJA URJA NIGAM PRIVATE LIMITED			0.00	0.00
067	BF-NTPC ENERGY SYSTEMS LTD			0.00	0.00
068				0.00	0.00
069	KANIHAGAR POWER GENERATING COMPANY LTD			0.00	0.00
070	TRANSFORMER AND ELECTRICAL KERALA LTD			0.00	0.00
071	NATIONAL HIGH POWER TEST LABORATORY PRIVATE LTD			0.00	0.00
072				0.00	0.00
073	CK NTPC URJA PRIVATE LTD			0.00	0.00
074	ANUBHAKTI VIDHYUT NIGAM LTD			0.00	0.00
075	ENERGY EFFICIENCY SERVICES LTD			0.00	0.00
076				0.00	0.00
077	TRINCOMALEE POWER COMPANY LTD.			0.00	0.00
078	BANGLADESH-INDIA FRIENDSHIP POWER COMPANY (PVT.) LTD			0.00	0.00
079	HINDUSTAN URVARAK & RASAYAN LIMITED			0.00	0.00
080	KONKAN LNG LTD			0.00	0.00
081	**SUB TOTAL**			**0.00**	**0.00**
082	AGGREGATE AMOUNT OF IMPAIRMENT IN THE VALUE OF INVESTMENTS			0.00	0.00
083	TOTAL (NET OF IMPAIRMENT) OF JV			0.00	0.00
084	**Gross Total of Investments**			**0.00**	**0.00**
085	**Total**			**0.00**	**0.00**
086	Details of investments			0.00	0.00
087	Aggregate amount of Unquoted Investments			0.00	0.00

NOTE NO. 6 TO THE FS-NCA-INVESTMENTS IN SUBSIDIARIES & JOINT VENTURES

(Amount in ₹)

	As at	No. of shares	Face value	31.03.2022	31.03.2021
141				0.00	0.00
142				0.00	0.00
143				0.00	0.00
144				0.00	0.00
145				0.00	0.00
151	Valuation of Investments as per Note 1			0.00	0.00
154				0.00	0.00
232				0.00	0.00
233				0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 7 TO THE FS-NCA-INVESTMENTS

(Amount in ₹)

	As at	No. of shares	Face value	31.03.2022	31.03.2021
101	Non-current financial assets (investments)			0.00	0.00
106	**Long Term - Trade**			**0.00**	**0.00**
107	**Equity instruments (fully paid up unless otherwise stated)**			**0.00**	**0.00**
108	**Quoted**			**0.00**	**0.00**
109	**JOINT VENTURE COMPANIES**			**0.00**	**0.00**
110	PTC India Ltd.			0.00	0.00
111	INTERNATIONAL COAL VENTURES PRIVATE LTD.			0.00	0.00
112	BF-NTPC ENERGY SYSTEMS LTD.			0.00	0.00
113				0.00	0.00
114	COOPERATIVE SOCIETIES			0.00	0.00
115	**SUB TOTAL**			**0.00**	**0.00**
116	AGGREGATE AMOUNT OF IMPAIRMENT IN THE VALUE OF INVESTMENTS			0.00	0.00
117	**TOTAL**			**0.00**	**0.00**
135				0.00	0.00
144	NTPC EMPLOYEES CONSUMERS AND THRIFT CO-OPERATIVE SOCIETY LTD. KORBA			0.00	0.00
147	NTPC EMPLOYEES CONSUMERS AND THRIFT COOPERATIVE SOCIETY LTD. SEETAP			0.00	0.00
148	NTPC EMPLOYEES CONSUMERS COOPERATIVE SOCIETY LTD. FARAKKA			0.00	0.00
149	NTPC EMPLOYEES CONSUMERS COOPERATIVE SOCIETY LTD. VINDHYACHAL			0.00	0.00
150	NTPC EMPLOYEES CONSUMERS COOPERATIVE SOCIETY LTD. ANTA			0.00	0.00
151	NTPC EMPLOYEES CONSUMERS COOPERATIVE SOCIETY LTD. KAWAS			0.00	0.00
152	NTPC Employees Consumers Cooperative Society Ltd. Kahlgaon			0.00	0.00



PAKRI BARWADIH COAL MINE

NOTE NO. 5 TO THE FS-NCA-TRADE RECEIVABLES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	Non-current financial assets - Trade receivables	0.00	0.00
002	UNSECURED, CONSIDERED GOOD	0.00	0.00
003	CREDIT IMPAIRED	0.00	0.00
004		0.00	0.00
005		0.00	0.00
006	**Total**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 9 TO THE FS-NCA-LOANS (Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**LOANS (NON CURRENT)**	**0.00**	**0.00**
004	RELATED PARTIES	0.00	0.00
005	SECURED	0.00	0.00
006	UN-SECURED	0.00	0.00
007	WITH SIGNIFICANT INCREASE IN CREDIT RISK	0.00	0.00
008	CREDIT IMPAIRED	0.00	0.00
009		0.00	0.00
010	EMPLOYEES(INCLUDING ACCRUED INTEREST)	0.00	0.00
011	SECURED	33,899,782.71	23,989,782.58
012	UNSECURED	21,685,229.73	20,110,478.42
013	WITH SIGNIFICANT INCREASE IN CREDIT RISK	0.00	0.00
014	CREDIT IMPAIRED	0.00	0.00
015	LESS : EMPLOYEE LOANS DISCOUNTING	0.00	0.00
016	SECURED	10,458,473.85	8,377,954.49
017	UNSECURED	3,967,535.97	4,570,949.77
018	LOAN TO STATE GOVERNMENT IN SETTLEMENT OF DUES FROM CUSTOMERS (UNSECURED)	0.00	0.00
019	OTHERS	0.00	0.00
020	SECURED	0.00	0.00
021	UNSECURED	0.00	0.00
022	WITH SIGNIFICANT INCREASE IN CREDIT RISK	0.00	0.00
023	CREDIT IMPAIRED	0.00	0.00
024	LESS: ALLOWANCE FOR CREDIT IMPAIRED LOANS	0.00	0.00
025	**SUB TOTAL**	**40,939,002.62**	**31,151,356.54**
026		0.00	0.00
027	**TOTAL**	**40,939,002.62**	**31,151,356.54**
028		0.00	0.00
029		0.00	0.00
030	**Due from Directors and Officers of the Company**	**0.00**	**0.00**
031	Directors	0.00	0.00
032	Officers	0.00	0.00
033		**0.00**	**0.00**
034	**Loans to related parties include:**	**0.00**	**0.00**
035	i)Key management personel	0.00	0.00
036	ii)Subsidiary companies	0.00	0.00
037	iii)Joint Venture companies	0.00	0.00
038	iv)Others	0.00	0.00
039		**0.00**	**0.00**
054	Other loans represent loans given to	0.00	0.00
055	a) APIIC	0.00	0.00
060		0.00	0.00
061	RPD	0.00	0.00
062	i)Key management personel	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 9 TO THE FS-NCA-LOANS (Amount in ₹)

	As at	31.03.2022	31.03.2021
063	ii)Subsidiary companies	0.00	0.00
064	iii)Joint Venture companies	0.00	0.00
065	iv)Others	0.00	0.00
066	**Total**	**0.00**	**0.00**



PAKRI BARWADIH COAL MINE

NOTE NO. 10 TO THE FS-NCA-OTHER FINANCIAL ASSETS (Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**Other Financial Assets (non current)**	**0.00**	**0.00**
002		0.00	0.00
003	**Share application money pending allotment in (Subsidiary Companies) :**	**0.00**	**0.00**
004	NTPC Electric Supply Company Ltd.	0.00	0.00
005	NTPC Vidyut Vyapar Nigam Ltd.	0.00	0.00
006	Nabinagar Power Generating Company Ltd.	0.00	0.00
007	Kanti Bijlee Utpadan Nigam Ltd.	0.00	0.00
008	Bhartiya Rail Bijlee Company Ltd.	0.00	0.00
009	Patratu Vidyut Utpadan Nigam Ltd.	0.00	0.00
010	NTPC Mining Limited	0.00	0.00
011	THDC Ltd.	0.00	0.00
012	NEEPCO Ltd	0.00	0.00
013		0.00	0.00
014	**Total**	**0.00**	**0.00**
015	**Share application money pending allotment (Joint Venture)**	**0.00**	**0.00**
016	Utility Powertech Ltd.	0.00	0.00
017	NTPC GE Power Services Pvt.Ltd.	0.00	0.00
018	NTPC-SAIL Power Company Ltd.	0.00	0.00
019	NTPC-Tamil Nadu Energy Company Ltd.	0.00	0.00
020	Ratnagiri Gas & Power Private Ltd.	0.00	0.00
021	Aravali Power Company Private Ltd.	0.00	0.00
022		0.00	0.00
023	NTPC BHEL Power Projects Private Ltd.	0.00	0.00
024	Meja Urja Nigam Private Limited	0.00	0.00
025	BF-NTPC Energy Systems Ltd.	0.00	0.00
026	Anushakti Vidhyut Nigam Ltd.	0.00	0.00
027	Nabinagar Power Generating Company Ltd.	0.00	0.00
028	Energy Efficiency Services Ltd.	0.00	0.00
029	National High Power Test Laboratory Private Ltd.	0.00	0.00
030		0.00	0.00
031	Citi, NTPC Urja Private Ltd.	0.00	0.00
032	Trincomalee Power Company Ltd.	0.00	0.00
033	Hindustan Urvarak & Rasayan Limited	0.00	0.00
034	Bangladesh-India Friendship Power Company Private Ltd.	0.00	0.00
035	**Sub Total**	**0.00**	**0.00**
036		0.00	0.00
037	Claims Recoverable	0.00	0.00
038	Finance Lease Recoverable	0.00	0.00
039	Mine Closure Deposit	143,950,340.59	62,500,000.00
041	**Total**	**143,950,340.59**	**62,500,000.00**

PAKRI BARWADIH COAL MINE

(Amount in ₹)

As at	31.03.2022	31.03.2021

PAKRI BARWADIH COAL MINE

NOTE NO. 11 TO THE FS-NCA-OTHER NON-CURRENT ASSETS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**Other Non-current Assets**	**0.00**	**0.00**
002		**0.00**	**0.00**
003	**CAPITAL ADVANCES**	**0.00**	**0.00**
004	SECURED	0.00	0.00
005	Unsecured	0.00	0.00
006	COVERED BY BANK GUARANTEE	182,653,535.00	195,293,123.00
007	OTHERS	992,801,955.16	979,146,226.85
008	CONSIDERED DOUBTFUL	0.00	0.00
009	LESS: ALLOWANCE FOR BAD & DOUBTFUL ADVANCES	0.00	0.00
010	**Sub-Total**	**1,175,455,490.16**	**1,174,439,349.85**
011		0.00	0.00
012	Advances other than capital advances	0.00	0.00
013	SECURITY DEPOSITS	22,750.00	32,950.00
019	Advances to Related parties	0.00	0.00
022	**Advances to Contractors & Suppliers**	**0.00**	**0.00**
023	SECURED	0.00	0.00
024	UNSECURED	0.00	0.00
025	CONSIDERED DOUBTFUL	0.00	0.00
026	LESS: ALLOWANCE FOR BAD & DOUBTFUL ADVANCES	0.00	0.00
027	**Sub Total**	**22,750.00**	**32,950.00**
028	RECEIVABLE FROM MCP ESCROW A/C	144,285,068.88	62,700,000.00
039	ADVANCE TAX & TAX DEDUCTED AT SOURCE	3,325,437.25	2,230,751.27
040	LESS - PROVISION FOR CURRENT TAX	0.00	0.00
041		0.00	0.00
042	**Sub Total**	**147,610,506.13**	**64,930,751.27**
043	DEFERRED PAYROLL EXPENSES (SECURED)	6,087,683.20	6,703,933.03
044	DEFERRED PAYROLL EXPENSES (UNSECURED)	2,768,065.74	3,286,270.86
045	**Sub Total**	**10,855,748.94**	**9,990,203.89**
046	DEFERRED FOREIGN CURRENCY FLUCTUATION ASSET	0.00	0.00
048	**Total**	**1,333,944,495.23**	**1,249,393,255.01**
049		0.00	0.00
050		0.00	0.00
061	Advances include amount due from the following Private Companies in which Directors of the Company are also Directors in such Companies	0.00	0.00
063		0.00	0.00
064	NTPC GE Power Services Pvt.Ltd.	0.00	0.00
065		0.00	0.00
066	Ratnagiri Gas & Power Private Ltd.	0.00	0.00
067	Aravali Power Company Private Ltd.	0.00	0.00
068	NTPC-SCCL Global Ventures Private Ltd.	0.00	0.00
069	NTPC BHEL Power Projects Private Ltd.	0.00	0.00
070	Meja Urja Nigam Private Limited	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 11 TO THE FS-NCA-OTHER NON-CURRENT ASSETS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
071	Nabinagar Power Generating Company Ltd.	0.00	0.00
072	National High Power Test Laboratory Private Ltd.	0.00	0.00
074	CIL NTPC Urja Private Ltd.	0.00	0.00
076		0.00	0.00
077	**Related Party (Adv)**	**0.00**	**0.00**
078	Key Management personel	0.00	0.00
079	Subsidiary companies	0.00	0.00
080	Joint Venture companies	0.00	0.00
081	Contractors	0.00	0.00
082	Others	0.00	0.00
084		0.00	0.00
085	**Total**	**0.00**	**0.00**



PAKRI BARWADIH COAL MINE

NOTE NO. 12 TO THE FS-CA-INVENTORIES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**INVENTORIES**	**0.00**	**0.00**
002		**0.00**	**0.00**
003	Coal	145,845,330.49	669,617,759.15
004	Fuel oil	0.00	0.00
005	Naphtha	0.00	0.00
006	Stores and spares	49,002,813.03	1,229,433.64
007	Chemicals & consumables	2,119,707.67	214,007.67
008	Loose tools	870,840.00	0.00
009	Steel Scrap	0.00	0.00
010	Others	76,727,660.55	856,807.75
011	**Sub Total**	**274,566,351.74**	**671,918,008.21**
012	Less: Provision for shortages	0.00	0.00
013	Less: Provision for obsolete/ unserviceable/diminution in value of surplus inventory	0.00	0.00
014		0.00	0.00
015	**Total**	**274,566,351.74**	**671,918,008.21**
016	**Inventories include material in transit**	**0.00**	**0.00**
017	Coal	0.00	0.00
018	Fuel oil	0.00	0.00
019	Naphtha	0.00	0.00
020	Stores and spares	0.00	0.00
021	Chemicals & consumables	0.00	0.00
022	Loose tools	0.00	0.00
023	Others	0.00	0.00
024		**0.00**	**0.00**
025	Inventory items other than steel scrap have been valued considering Note 1.	0.00	0.00



PAKRI BARWADIH COAL MINE

NOTE NO. 13 TO THE FS-CA-INVESTMENTS

(Amount in ₹)

	As at	No. of shares	Face value	31.03.2022	31.03.2021
001	CURRENT INVESTMENTS			0.00	0.00
002	(Valuation as per Note 1)			0.00	0.00
003				0.00	0.00
004	Investment in Mutual Funds (Details as under)			0.00	0.00
004	SBI Magnum Insta Cash Fund-DDR			0.00	0.00
005	SBI Premier Liquid Fund Super (P-DDR			0.00	0.00
006	SBI SHF Ultra Short Term Fund-P-DDR			0.00	0.00
007	UTI Money Market- P-Direct-Growth			0.00	0.00
008	IDFC Liquid (Ret. Direct)-Growth			0.00	0.00
009	Canara Robeco Liquid Fund Super (P-DDR			0.00	0.00
010	Canara Robeco Treasury AdvaNagi Fund Super (P-DDR			0.00	0.00
011	IDFC Liquid Fund-DDR			0.00	0.00
012	SBI Premier Liquid fund-Direct DDR (Ash Fund)			0.00	0.00
013	UTI Liquid CashPlan - P - DDR (Ash Funds)			0.00	0.00
014	SBI Liquid Fund - DDR - (Ash Funds)			0.00	0.00
015	Bandhan Liquid Fund - Direct - Growth			0.00	0.00
016	Sub Total			0.00	0.00
017				0.00	0.00
018	Unquoted Investments			0.00	0.00
019				0.00	0.00
020	TOTAL			0.00	0.00
021				0.00	0.00



PAKRI BARWADIH COAL MINE

NOTE NO. 14 TO THE FS-CA-TRADE RECEIVABLES (Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**TRADE RECEIVABLES (current)***	**0.00**	**0.00**
002		0.00	0.00
003	Secured,Considered Good	0.00	0.00
004	Unsecured , considered good	0.00	19,439,106.45
005	Credit impaired	0.00	0.00
006	Unbilled Revenue	0.00	0.00
007	**Sub-Total**	**0.00**	**19,439,106.45**
008	**Total**	**0.00**	**19,439,106.45**
009	Less: Allowance for credit impaired receivables	0.00	0.00
010	**Total**	**0.00**	**19,439,106.45**
012	Less: Discom Clearing	0.00	0.00
013	**Grand Total**	**0.00**	**19,439,106.45**
014	* After adjustment for Unbilled Revenue	0.00	0.00
015	Long-term trade receivables	0.00	0.00
016	TCS Clearing	0.00	0.00
017	Discom Clearing	0.00	0.00
228	**Trade Receivable**	**0.00**	**0.00**
230	Not due	0.00	0.00
231	Due	0.00	0.00
232	(i) Undisputed Trade receivables # considered good	0.00	19,439,106.45
233	(ii) Undisputed Trade Receivables # which have significant increase in credit risk	0.00	0.00
234	(iii) Undisputed Trade Receivables # credit impaired	0.00	0.00
235	(iv) Disputed Trade Receivables#considered good	0.00	0.00
236	(v) Disputed Trade Receivables # which have significant increase in credit risk	0.00	0.00
237	(vi) Disputed Trade Receivables # credit impaired	0.00	0.00
238	Unbilled	0.00	0.00
239	**Total**	**0.00**	**19,439,106.45**
240		0.00	0.00
241	**(i) Undisputed Trade receivables # considered good**	**0.00**	**0.00**
242	Less than 6 months	0.00	19,439,106.45
243	6 months -1 year	0.00	0.00
244	1-2 years	0.00	0.00
245	2-3 years	0.00	0.00
246	More than 3 years	0.00	0.00
247	**Sub Total (I)**	**0.00**	**19,439,106.45**
248	**(ii) Undisputed Trade Receivables # which have significant increase in credit risk**	**0.00**	**0.00**
249	Less than 6 months	0.00	0.00
250	6 months -1 year	0.00	0.00
251	1-2 years	0.00	0.00
252	2-3 years	0.00	0.00
253	More than 3 years	0.00	0.00

Locked: 24.04.2022 - 12:02:47
Run on: 24.04.2022 - 12:59:13 Version: 0

937

PAKRI BARWADIH COAL MINE

NOTE NO. 14 TO THE FS-CA-TRADE RECEIVABLES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
254	**Sub Total (III)**	**0.00**	**0.00**
255	**(iv) Disputed Trade Receivables#considered good**	**0.00**	**0.00**
256	Less than 6 months	0.00	0.00
257	6 months -1 year	0.00	0.00
258	1-2 years	0.00	0.00
259	2-3 years	0.00	0.00
260	More than 3 years	0.00	0.00
261	**Sub Total (IV)**	**0.00**	**0.00**
262	**(v) Disputed Trade Receivables # which have significant increase in credit risk**	**0.00**	**0.00**
263	Less than 6 months	0.00	0.00
264	6 months -1 year	0.00	0.00
265	1-2 years	0.00	0.00
266	2-3 years	0.00	0.00
267	More than 3 years	0.00	0.00
268	**Sub Total (V)**	**0.00**	**0.00**
269	**(vi) Disputed Trade Receivables # credit impaired**	**0.00**	**0.00**
270	Less than 6 months	0.00	0.00
271	6 months -1 year	0.00	0.00
272	1-2 years	0.00	0.00
273	2-3 years	0.00	0.00
274	More than 3 years	0.00	0.00
275	**Sub Total (VI)**	**0.00**	**0.00**
276	Total	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 15 TO THE FS-CA-CASH AND CASH EQUIVALENTS **(Amount in ₹)**

	As at	31.03.2022	31.03.2021
001	**CASH & BANK BALANCES**	**0.00**	**0.00**
002	**Cash & Cash Equivalents**	**0.00**	**0.00**
003	Balances with Banks	56,611,652.04	575,431,620.57
004	Cheques & Drafts on hand	0.00	0.00
005	Cash on hand	0.00	0.00
006	Others (stamps in hand)	0.00	0.00
007	Bank deposits with original maturity upto three months	0.00	0.00
008	Balances with RBI	0.00	0.00
009		0.00	0.00
010	**Total**	**56,611,652.04**	**575,431,620.57**

Locked: 24.04.2022 - 12:02:47
Run on: 24.04.2022 - 12:59:14 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 16 TO THE FS-CA-BANK BALANCES OTHER THAN CASH AND CASH EQUIVALENTS (Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**Other Bank Balances**	**0.00**	**0.00**
002	Deposits with original maturity of more than three months but not more than twelve months	0.00	0.00
003	Earmarked balances with banks*	0.00	0.00
004	**SubTotal**	**0.00**	**0.00**
005	Interest accrued on deposits	0.00	0.00
006		0.00	0.00
007	**Total**	**0.00**	**0.00**
008		0.00	0.00
009	**Earmarked balances with banks consist of :**	**0.00**	**0.00**
010	Unpaid dividend account balance	0.00	0.00
011	Towards public deposit repayment reserve	0.00	0.00
012	Towards redemption of bonds due for repayment within one year	0.00	0.00
013	Security with Government/other authorities	0.00	0.00
014	Unpaid refund/interest account balance - Tax free bonds/ Bonus Debentures	0.00	0.00
015	Earmarked for RGGVY/DDUGJY/SAUBHAGYA Fund	0.00	0.00
016	Earmarked for Flyash Utilisation Reserve Fund	0.00	0.00
017	Deposits with original maturity upto three months as per court orders	0.00	0.00
018	Payment Security Scheme of MNRE NSM (NTPC)	0.00	0.00
019	Payment Security Scheme of MNRE NSM (NVVN)	0.00	0.00
020	Enforcement Directorate of Solar Plant(NVVN)	0.00	0.00
021	Bank guarantee Fund of MNRE (NVVN)	0.00	0.00
022	Others	0.00	0.00
023	Margin Money	0.00	0.00
024		0.00	0.00
025		0.00	0.00
026	**Sub-total**	**0.00**	**0.00**
030	**Total**	**0.00**	**0.00**
031		0.00	0.00
032	Bank deposits with original maturity of less than three months- other than earmarked	0.00	0.00
033	Bank deposits with original maturity of more than three months but not more than twelve months- other than earmarked	0.00	0.00
034	Earmarked bank balances (current account)	0.00	0.00

पवन देव जमाता/PAWAN DEV JAMTA

PAKRI BARWADIH COAL MINE

NOTE NO. 17 TO THE FS-CA-LOANS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**Current financial assets - Loans**	**0.00**	**0.00**
002	**Loans (current)-including interest accrued**	**0.00**	**0.00**
004	**Related Parties**	**0.00**	**0.00**
005	Secured	0.00	0.00
006	Un-Secured	0.00	0.00
007	With significant increase in Credit Risk	0.00	0.00
008	Credit impaired	0.00	0.00
009		**0.00**	**0.00**
010	**Employees**	**0.00**	**0.00**
011	Secured	5,290,203.89	3,924,352.61
012	Unsecured	17,679,388.72	13,681,644.40
013	With significant increase in Credit Risk	0.00	0.00
014	Credit impaired	0.00	0.00
015	Less : Employee Loans Discounting	0.00	0.00
016	**Loan to State Government in settlement of dues from customers (Unsecured)**	**0.00**	**0.00**
017		0.00	0.00
018	**Others**	**0.00**	**0.00**
019	Secured	0.00	0.00
020	Unsecured	0.00	0.00
021	With significant increase in Credit Risk	0.00	0.00
022	Credit impaired	0.00	0.00
023		**0.00**	**0.00**
024	Less: Allowance for credit impaired loans	0.00	0.00
025	**Total (Loans)**	**23,165,592.61**	**17,605,997.01**
026		**0.00**	**0.00**
027	**Due from Directors and Officers of the Company**	**0.00**	**0.00**
028	Directors	0.00	0.00
029	Officers	0.00	0.00
030		**0.00**	**0.00**
031	**Loans to related parties include:**	**0.00**	**0.00**
032	i)Key management personel	0.00	0.00
033	ii)Subsidiary companies	0.00	0.00
034	KBUNL	0.00	0.00
035	RGPPL	0.00	0.00
036	NVVN	0.00	0.00
037	iii)Joint Venture companies	0.00	0.00
038	iv)others	0.00	0.00
039		0.00	0.00
059	RPD	0.00	0.00
060	i)Key management personel	0.00	0.00
061	ii)Subsidiary companies	0.00	0.00
062	iii)Joint Venture companies	0.00	0.00
063	iv)Others	0.00	0.00
064		0.00	0.00
065	**Total**	**0.00**	**0.00**

Locked: 24.04.2022 - 12:02:47

Run on: 24.04.2022 - 12:59:16 Version: 0

1031

PAKRI BARWADIH COAL MINE

NOTE NO. 18 TO THE FS-CA-OTHER FINANCIAL ASSETS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**Other Financial Assets (current)**	**0.00**	**0.00**
002		0.00	0.00
003	**ADVANCES**	**0.00**	**0.00**
004		**0.00**	**0.00**
005	**Refated Parties**	**0.00**	**0.00**
006	Secured	0.00	0.00
007	Un-Secured	-110,116.42	-86,524.03
008	Considered doubtful	0.00	0.00
009		**0.00**	**0.00**
010	**Employees**	**0.00**	**0.00**
012	Unsecured	821,389.00	658,058.00
013	Considered Doubtful	0.00	0.00
014		**0.00**	**0.00**
020	**Others**	**0.00**	**0.00**
021	Secured	0.00	0.00
022	Unsecured	0.00	0.00
023	Considered Doubtful	0.00	0.00
024		**0.00**	**0.00**
025	Less: Allowance for bad & doubtful advances	0.00	0.00
026		**0.00**	**0.00**
033	**Total (Advances)**	**711,272.58**	**571,533.97**
044		**0.00**	**0.00**
045	**Claims Recoverable**	**0.00**	**0.00**
046	Secured	0.00	0.00
047	Unsecured, considered good	0.00	0.00
048	Considered Doubtful	0.00	0.00
049	Less:- Allowance for doubtful claims	0.00	0.00
050	Others-Claims Recoverable	0.00	0.00
051		**0.00**	**0.00**
052	Contract Asset- Revenue	20,360,237.74	0.00
053	Hedging cost recoverable from beneficiaries	0.00	0.00
054	Derivative MTM Asset	0.00	0.00
055	Finance Lease Receivable	0.00	0.00
056	Mine Closure Deposit	287,773,020.13	287,212,685.64
058	**Other Accrued Income**	**0.00**	**0.00**
059	Secured,Considered Good	0.00	0.00
060	Unsecured , considered good	16,813.00	3,865,706.00
061	Credit impaired	0.00	0.00
062	**Sub-Total**	**16,813.00**	**3,865,706.00**
063	Less: Allowance for credit impaired receivables	0.00	0.00
064	**Total**	**16,813.00**	**3,865,706.00**
065		0.00	0.00
066	Others*	0.00	0.00
067	**Total**	**306,861,343.45**	**291,649,925.61**
068	* Other include amount recoverable from contractors and other parties towards hire charges, rent/electricity etc.	0.00	0.00

Locked: 24.04.2022 - 12:02:47
Run on: 24.04.2022 - 12:59:17 Version: 0

1802

PAKRI BARWADIH COAL MINE

NOTE NO. 18 TO THE FS-CA-OTHER FINANCIAL ASSETS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
069	**Advances to related parties include:**	**0.00**	**0.00**
070	i)Key management personel	0.00	0.00
071	ii)Subsidiary companies	0.00	0.00
072	iii)Joint Venture companies	0.00	0.00
073	iv)Contractors	0.00	0.00
074	v)Others	0.00	0.00
075		**0.00**	**0.00**
076	Advances include amount due from the following Private Companies in which Directors of the Company are also Directors in such Companies	0.00	0.00
077		**0.00**	**0.00**
078	NTPC GE Power Services Pvt Ltd.	0.00	0.00
079	Ratnagiri Gas & Power Private Ltd.	0.00	0.00
080	Aravali Power Company Private Ltd.	0.00	0.00
081	NTPC-SCCL Global Ventures Private Ltd.	0.00	0.00
082	NTPC BHEL Power Projects Private Ltd.	0.00	0.00
083	Meja Urja Nigam Private Limited	0.00	0.00
084	Nabinagar Power Generating Company Ltd.	0.00	0.00
085	National High Power Test Labortory Private Ltd.	0.00	0.00
086	International Coal Ventures Private Ltd.	0.00	0.00
087	CIL NTPC Urja Private Ltd.	0.00	0.00
088	Bangladesh-India Friendship Power Co. Pvt Ltd	0.00	0.00
090	TCS Clearing	0.00	0.00
091	Related Party (Adv)- Employee	0.00	0.00
092	Related Party (Adv)- Subsidiaries	0.00	0.00
093	Related Party (Adv)- Joint Ventures	0.00	0.00
094	Related Party (Adv)- Contractors	0.00	0.00
095	Related Party (Adv)- Others	-110,116.42	-86,524.03
096		0.00	0.00
097		0.00	0.00
098		0.00	0.00
099		0.00	0.00
100	**Total**	**-110,116.42**	**-86,524.03**

Locked: 24.04.2022 - 12:02:47
Run on: 24.04.2022 - 12:59:17 Version: 0

1033

PAKRI BARWADIH COAL MINE

NOTE NO. 19 TO THE FS-CA-OTHER CURRENT ASSETS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**OTHER CURRENT ASSETS**	**0.00**	**0.00**
002	Security Deposits (Unsecured)	0.00	0.00
003	Deposit with Customs, port trust & others*	2,555,977,319.00	2,555,977,319.00
004	**ADVANCES**	**0.00**	**0.00**
005		**0.00**	**0.00**
006	**Related Parties**	**0.00**	**0.00**
007	Secured	0.00	0.00
008	Un-Secured	0.00	0.00
009	Considered doubtful	0.00	0.00
010		**0.00**	**0.00**
011	**Employees(including imprest)**	**0.00**	**0.00**
012	Secured	0.00	0.00
013	Unsecured	40,000.00	0.00
014	Considered Doubtful	0.00	0.00
015		**0.00**	**0.00**
016	**Contractors & Suppliers**	**0.00**	**0.00**
017	Secured	0.00	0.00
018	Unsecured	22,779,490.00	250,504,852.11
019	Considered Doubtful	0.00	0.00
020		0.00	0.00
021	**Others****	**0.00**	**0.00**
022	Secured	0.00	0.00
023	Unsecured	1,322,260.00	4,629,572.00
024	Considered Doubtful	0.00	0.00
025	Less: Allowance for bad & doubtful advances	0.00	0.00
026	Receivable from MCP Escrow A/c	287,438,291.50	250,800,000.00
027	Deferred Payroll Expenses (Secured)	775,461.72	636,847.80
028	Deferred Payroll Expenses (Unsecured)	1,174,959.36	1,126,527.48
029	**Sub-total**	**1,950,421.08**	**1,763,375.28**
030	**Interest accrued on :**	**0.00**	**0.00**
031	Advances to contractors	0.00	1,602,923.00
032		**0.00**	**0.00**
033	**Claims Recoverable**	**0.00**	**0.00**
034	Secured	0.00	0.00
035	Unsecured, considered good	13,306,759.00	0.00
036	Considered Doubtful	0.00	0.00
037	Less:- Allowance for doubtful claims	0.00	0.00
038		**0.00**	**0.00**
039	Deferred premium on forward exchange contract/ Option Assets	0.00	0.00
041	Assets Held for Disposal	0.00	0.00
042	Others	883,240.00	794,303.00
043		0.00	0.00
044	**Total (Other Current Assets)**	**2,883,697,760.58**	**3,006,062,144.39**
045	**Include Prepaid Expenses	0.00	0.00
046	*Includes sales tax/Entry tax/VAT deposited under protest with Sales Tax Authorities	0.00	0.00

Locked: 24.04.2022 - 12:02:47

Run on: 24.04.2022 - 12:59:19 Version: 0

1034

PAKRI BARWADIH COAL MINE

NOTE NO. 19 TO THE FS-CA-OTHER CURRENT ASSETS **(Amount in ₹)**

	As at	31.03.2022	31.03.2021
047	*Includes deposited with courts	2,515,302,302.00	2,515,302,302.00
048	*Includes deposited with LIC for annuity payments	0.00	0.00
049	* Includes deposits with WRD / against BG in r/o finance lease	0.00	0.00
050	Other include amount recoverable from contractors and other parties towards hire charges, rent/electricity etc.	0.00	0.00
052	**Advances to related parties include:**	**0.00**	**0.00**
053	i)Key management personal	0.00	0.00
054	ii)Subsidiary companies	0.00	0.00
055	iii)Joint Venture companies	0.00	0.00
056	Contractors	0.00	0.00
057	Others	0.00	0.00
058		0.00	0.00
059	Advances include amount due from the following Private Companies in which Directors of the Company are also Directors in such Companies	0.00	0.00
060		**0.00**	**0.00**
061		0.00	0.00
062	Related Party (Adv)- Employee	0.00	0.00
063	Related Party (Adv)- Subsidiaries	0.00	0.00
064	Related Party (Adv)- Joint Venture	0.00	0.00
065		0.00	0.00
066		0.00	0.00
067	**Total**	**0.00**	**0.00**
068		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 20 TO THE FS-REGULATORY DEFERRAL ACCOUNT DEBIT BALANCES (Amount in ₹)

	As at	31.03.2022	31.03.2021
001	On account of Exchange Differences	0.00	0.00
002	On account of employee benefit exp	0.00	0.00
003	Regulatory deferred account - deferred	0.00	0.00
004	Deferred asset for ash transportation	0.00	0.00
005	Deferred asset for Arbitration Award	0.00	0.00
007	**Total**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 21 TO THE FS-EQUITY-EQUITY SHARE CAPITAL

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**SHARE CAPITAL**	**0.00**	**0.00**
002	**Equity Share Capital**	**0.00**	**0.00**
003	**Authorised**	**0.00**	**0.00**
004	10,000,000,000 equity shares of Rs.10/- each (Previous year 10,000,000,000 eq shares of Rs.10/- each)	0.00	0.00
005	**Issued,Subscribed and fully Paid-up**	**0.00**	**0.00**
006	9,69,66,86,134 equity shares of Rs.10/- (Pr. Year 9,894,557,280 equity shares of Rs.10/- each)	0.00	0.00
007		**0.00**	**0.00**
008	**Total**	**0.00**	**0.00**
009	During FY 2018-19, the company has issued 1,849,092,880 equity shares of Rs.10/- each as fully paid bonus shares	0.00	0.00
010	The holders of the equity shares are entitled to receive dividends as declared from time to time, and are entitled to one vote per share at meetings of the company.	0.00	0.00
011	Details of shareholders holding more than 5% shares in the company	0.00	0.00
012	- President of India	0.00	0.00
013	No. of Shares	0.00	0.00
014	% of holding	0.00	0.00
015	- Life Insurance Corporation of India/ICICI Prudential Mutual Fund	0.00	0.00
016	No. of Shares	0.00	0.00
017	% of holding	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 22 TO THE FS-EQUITY-OTHER EQUITY { Amount in ₹ }

	As at	31.03.2022	31.03.2021
001	RESERVE AND SURPLUS	0.00	0.00
002		**0.00**	**0.00**
003	**Capital Reserve**	**0.00**	**0.00**
004	As per last financial statements	0.00	0.00
006	Add : Grants received during the year	0.00	0.00
007	Add: Transfer from Surplus	0.00	0.00
008	Less: Write back during the year/period	0.00	0.00
009	Less: Adjustments during the year/period	0.00	0.00
010	**SUB-TOTAL**	**0.00**	**0.00**
011		0.00	0.00
017		0.00	0.00
018	**SECURITIES PREMIUM ACCOUNT**	**0.00**	**0.00**
019	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
020	ADD: ADDITIONS DURING THE YEAR/PERIOD	0.00	0.00
021	LESS: ADJUSTMENTS DURING THE YEAR/PERIOD	0.00	0.00
022	**SUB-TOTAL**	**0.00**	**0.00**
023	**BONDS REDEMPTION RESERVE**	**0.00**	**0.00**
024	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
025	ADD: TRANSFER FROM SURPLUS	0.00	0.00
026	LESS: TRANSFER TO SURPLUS ON REDEMPTION	0.00	0.00
027	LESS: ADJUSTMENTS DURING THE YEAR/ PERIOD	0.00	0.00
028	**SUB-TOTAL**	**0.00**	**0.00**
029	**CAPITAL REDEMPTION RESERVE**	**0.00**	**0.00**
030	As per last financial statements	0.00	0.00
031	Add: Transfer from Surplus	0.00	0.00
032	Less: Transfer to surplus on redemption	0.00	0.00
033	Less: Adjustments during the year/ period	0.00	0.00
034	**Sub-Total**	**0.00**	**0.00**
035	**Share Application money pending Allotment**	**0.00**	**0.00**
036	As per last financial statements	0.00	0.00
037	Add: Addition during the year	0.00	0.00
038	Less: Utilised for allotment during the year	0.00	0.00
039	Less: Adjustments during the year/ period	0.00	0.00
040	**SUB-TOTAL**	**0.00**	**0.00**
046	**FLY-ASH UTILISATION RESERVE FUND**	**0.00**	**0.00**
047	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
048	TRANSFERRED TO CC	0.00	0.00
049	ADD:TRANSFER FROM REVENUE FROM OPERATIONS	0.00	0.00
050	ADD:TRANSFER FROM OTHER INCOME	0.00	0.00
051	LESS: UTILISED DURING THE YEAR	0.00	0.00
052	TANGIBLE ASSETS	0.00	0.00
053	EMPLOYEE BENEFIT EXPENSES	0.00	0.00
054	GENERATION,ADMIN. AND OTHER EXPENSES	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 22 TO THE FS-EQUITY-OTHER EQUITY

(Amount in ₹)

	As at	31.03.2022	31.03.2021
056	TAX EXPENSES	0.00	0.00
056	**SUB-TOTAL**	**0.00**	**0.00**
057	Self Insurance Reserve	0.00	0.00
058	As per last financial statements	0.00	0.00
059	Add: Addition during the year	0.00	0.00
060	Less: Utilised for allotment during the year	0.00	0.00
061	Less: Adjustments during the year/ period	0.00	0.00
062	SUB-TOTAL	0.00	0.00
063	**SPECIAL ALLOWANCE RESERVE FUND**	**0.00**	**0.00**
064	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
065	ADD: ADDITION DURING THE YEAR	0.00	0.00
066	LESS: UTLISED FOR ALLOTMENT DURING THE YEAR	0.00	0.00
067	LESS: ADJUSTMENTS DURING THE YEAR/ PERIOD	0.00	0.00
068	**SUB-TOTAL**	**0.00**	**0.00**
069	**CORPORATE SOCIAL RESPONSIBILITY (CSR) RESERVE**	**0.00**	**0.00**
070	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
071	ADD : TRANSFER FROM SURPLUS	0.00	0.00
072	LESS:-WRITE BACK DURING THE YEAR	0.00	0.00
073	**SUB-TOTAL**	**0.00**	**0.00**
074	**GENERAL RESERVE**	**0.00**	**0.00**
075	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
076	ADD: TRANSFER FROM SURPLUS	0.00	0.00
077	LESS: TRANSFER TO SURPLUS	0.00	0.00
078	LESS: WRITE BACK DURING THE YEAR /PERIOD	0.00	0.00
079	LESS: ADJUSTMENTS DURING THE YEAR /PERIOD	0.00	0.00
080	**SUB-TOTAL**	**0.00**	**0.00**
081		**0.00**	**0.00**
082	**RETAINED EARNINGS**	**0.00**	**0.00**
083	AS PER LAST FINANCIAL STATEMENTS	457,414,276.69	884,533,294.55
084	ADD(LESS):-CHANGES IN ACCOUNTING POLICY / PRIOR PERIOD ERRORS	0.00	0.00
085	ADD(LESS):-PROFIT (LOSS) AFTER TAX FOR THE YEAR FROM STATEMENT OF PROFIT & LOSS	745,428,484.24	-427,119,017.86
087	ADD: WRITE BACK FROM BOND REDEMPTION RESERVE	0.00	0.00
088	ADD: WRITE BACK FROM CAPITAL RESERVE	0.00	0.00
089	ADD: WRITE BACK FROM FOREIGN PROJECT RESERVE	0.00	0.00
090	ADD: WRITE BACK FROM CSR RESERVE	0.00	0.00
091	ADD: WRITE BACK FROM GENERAL RESERVE	0.00	0.00
093	LESS: TRANSFER TO BONDS REDEMPTION RESERVE	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 22 TO THE FS-EQUITY-OTHER EQUITY (Amount in ₹)

	As at	31.03.2022	31.03.2021
094	LESS: TRANSFER TO SPECIAL ALLOWANCE RESERVE FUND	0.00	0.00
095	LESS: TRANSFER TO FOREIGN PROJECT RESERVE	0.00	0.00
096	LESS:TRANSFER TO CAPITAL RESERVE	0.00	0.00
097	LESS:TRANSFER TO CSR RESERVE	0.00	0.00
098	LESS:TRANSFER TO GENERAL RESERVE	0.00	0.00
099	LESS:INTERIM DIVIDEND PAID	0.00	0.00
100	LESS:TAX ON INTERIM DIVIDEND PAID	0.00	0.00
101	LESS:FINAL DIVIDEND PAID	0.00	0.00
102	LESS:TAX ON FINAL DIVIDEND PAID	0.00	0.00
103	LESS: ISSUE OF BONUS DEBENTURE	0.00	0.00
104	LESS: TAX ON ISSUE OF BONUS DEBENTURE	0.00	0.00
105	**SUB-TOTAL**	**1,202,842,740.93**	**457,414,276.69**
110		0.00	0.00
111	**REMEASUREMENT OF DEFINED BENEFIT PLANS**	**0.00**	**0.00**
112	AS PER LAST FINANCIAL STATEMENTS	-12,713,256.53	-8,230,949.18
113	ADD/(LESS):- ACTUARIAL GAINS/LOSS THROUGH OCI	-1,891,510.68	-4,482,307.35
114	**SUB-TOTAL**	**-14,604,767.21**	**-12,713,256.53**
115		0.00	0.00
116	**FVTOCI Reserve**	**0.00**	**0.00**
117	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
118	ADD/(LESS):-NET GAIN/LOSS OF EQUITY INSTRUMENTS THROUGH OCI	0.00	0.00
119	**Sub-Total**	**0.00**	**0.00**
120		**0.00**	**0.00**
121	**Total Other equity**	**1,188,237,973.72**	**444,701,020.16**
122		0.00	0.00
123		0.00	0.00
124		0.00	0.00
125		0.00	0.00
126		0.00	0.00
127		0.00	0.00
128		0.00	0.00

(Amount in ₹)

As at	31.03.2022	31.03.2021



PAKRI BARWADIH COAL MINE

NOTE NO. 23 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**LONG TERM BORROWINGS**	**0.00**	**0.00**
002	**Bonds**	**0.00**	**0.00**
003	**Secured**	**0.00**	**0.00**
004	7.37 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2035 (Fifty Sixth Issue - Public Issue - Series 3A)	0.00	0.00
005	7.62 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2035 (Fifty Sixth Issue - Public Issue - Series 3 B).	0.00	0.00
006	8.61% Tax free secured non-cumulative non-convertible redeemable bonds of ₹ 10,00,000/- each redeemable at par in full on 4th March 2034 (Fifty First Issue C - Private Placement)	0.00	0.00
007	8.66% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2033 (Fiftieth Issue - Public Issue - Series 3A)	0.00	0.00
008	8.91% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2033 (Fiftieth Issue - Public Issue - Series 3B)	0.00	0.00
009	7.37% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 14th December 2031 (Sixty Sixth Issue - Private Placement)	0.00	0.00
010	7.49% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 7th November 2031 (Sixty Fourth Issue - Private Placement)	0.00	0.00
011	7.28 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2030 (Fifty Sixth Issue - Public Issue - Series	0.00	0.00

NOTE NO. 23 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
	2A)		
012	7.53 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2030 (Fifty Sixth Issue - Public Issue - Series 2 B).	0.00	0.00
013	7.32% Secured non-cumulative non-convertible redeemable taxable bonds of Rs 10,00,000/- each redeemable at par in full on 17 July 2029 (Sixty Ninth Issue - Private Placement)	0.00	0.00
014	8.63% Tax free secured non-cumulative non-convertible redeemable bonds of ₹ 10,00,000/- each redeemable at par in full on 4th March 2029 (Fifty First Issue B - Private Placement)	0.00	0.00
015	8.30% Secured non-cumulative non-convertible redeemable taxable bonds of Rs 10,00,000/- each redeemable at par in full on 15 January 2029 (Sixty Seventh Issue - Private Placement)	0.00	0.00
016	8.48% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2028 (Fiftieth Issue - Public Issue - Series 2A)	0.00	0.00
017	8.73% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2028 (Fiftieth Issue - Public Issue - Series 2B)	0.00	0.00
018	7.47% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 16th September 2026 (Sixty Third Issue - Private Placement)	0.00	0.00
019	7.58% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in	0.00	0.00

	As at	31.03.2022	31.03.2021
	full on 23rd August 2026 (Sixty Second Issue - Private Placement)		
020	8.05% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 5th May 2026 (Sixtieth Issue - Private Placement)	0.00	0.00
021	8.19% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 15th December 2025 (Fifty Seventh Issue - Private Placement)	0.00	0.00
022	7.11 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2025 (Fifty Sixth Issue - Public Issue - Series 1A)	0.00	0.00
023	7.36 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2025 (Fifty Sixth Issue - Public Issue - Series 1 B).	0.00	0.00
024	7.15% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of Rs. 10,00,000/- each redeemable at par in full on 21st August 2025 (Fifty Fifth Issue - Private Placement)	0.00	0.00
025	9.17% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 22nd September 2024 (53rd issue - private placement).	0.00	0.00
026	9.34% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 24th March 2024 (Fifty Second Issue - private placement)	0.00	0.00
027	8.19% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 10,00,000/- each redeemable at	0.00	0.00

	As at	31.03.2022	31.03.2021
	par in full on 4th March 2024 (Fifty First Issue A - Private Placement)		
028	8.41% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2023 (Fiftieth Issue - Public Issue - Series 1A)	0.00	0.00
029	8.66% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2023 (Fiftieth Issue - Public Issue - Series 1B)	0.00	0.00
030	9.25% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each with five equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 11th year and in annual installments thereafter upto the end of 15th year respectively commencing from 4th May 2023 and ending on 4th May 2027 (Forty fourth issue - private placement)VII	0.00	0.00
031	8.48% Secured non-cumulative non-nonvertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 1st May 2023 (Seventeenth issue - private placement)I	0.00	0.00
032	8.80% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4th April 2023 (Forty ninth issue -private placement	0.00	0.00
033	8.49% Secured non-cumulative non-convertible redeemable taxable fully paid-up bonus debentures of Rs. 12.50 each redeemable at par in three annual installments of Rs. 2.50, Rs. 5.00 and Rs. 5.00 at the end of 8th year, 9th year and 10th year on 25th March 2023, 25th March 2024 and 25th March 2025 respectively (Fifty Fourth Issue -Bonus Debentures)X - (refer Note 5 d)	0.00	0.00
034	8.73% Secured non-cumulative	0.00	0.00

	As at	31.03.2022	31.03.2021
	non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 07th March 2023 (Forty eighth issue - private placement)		
035	9.00% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each with five equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 11th year and in annual installments thereafter upto the end of 15th year respectively commencing from 25th January 2023 and ending on 25th January 2027 (Forty second issue- private placement)III	0.00	0.00
036	8.84% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4th October 2022 (Forty seventh issue- private placement)VII	0.00	0.00
037	7.93% Secured non-cumulative non-convertible redeemable taxable bonds of ` 10,00,000/- each redeemable at par in full on 03 May 2022 (68th Issue - Private Placement)	0.00	0.00
038	6.72% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 24th November 2021 (Sixty Fifth Issue - Private Placement)	0.00	0.00
039	8.10% Secured Non-Cumulative Non-Convertible Redeemable Taxable Bonds of Rs. 30,00,000/- each redeemable at par in three equal separately transferable redeemable principal parts (STRPP) at the end of 5th year, 10th year & 15th year on 27th May 2021, 27th May 2026 and 27th May 2031 respectively (Sixty First Issue- Private Placement)	0.00	0.00
040	8.33% Secured non-cumulative non-convertible redeemable taxable bonds of Rs.10,00,000/- each redeemable at par in full on 24th February 2021	0.00	0.00

	As at	31.03.2022	31.03.2021
	(Fifty Ninth Issue - Private Placement).		
042	8.93% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 19th January 2021 Thirty seventh issue - private placement)III	0.00	0.00
043	8.18% Secured non-cumulative non-convertible redeemable taxable bonds of Rs.10,00,000/- each redeemable at par in full on 31st December 2020 (Fifty Eight Issue - Private Placement).	0.00	0.00
044	8.73 % Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 31st March 2020 (Thirty third issue- private placement)III	0.00	0.00
045	8.78 % Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 9th March 2020 (Thirty first issue- private placement)III	0.00	0.00
046	11.25% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in five equal annual installments commencing from 6th Nov 2019 and ending on 6th Nov 2023 (Twenty seventh issue - private placement)III	0.00	0.00
047	7.89% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 5th May 2019 (Thirtieth issue - private placement)III	0.00	0.00
048	8.65% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4th February 2019 (Twenty ninth issue - private placement)III	0.00	0.00
049	7.50% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full	0.00	0.00

	As at	31.03.2022	31.03.2021
	on 12th January 2019 (Nineteenth issue - private placement)II		
050	11% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 21st November 2018 (Twenty eighth issue - private placement)III	0.00	0.00
051	9.3473% Secured non-cumulative non-convertible redeemable taxable bonds of ₹15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 20th July 2018 and ending on 20th July 2032 (Forty sixth issue - private placement)VII	0.00	0.00
052	9.4376% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 16th May 2018 and ending on 16th May 2032 (Forty fifth issue - private placement)VII	0.00	0.00
053	8.00% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 10th April 2018 (Sixteenth issue -private placement)I	0.00	0.00
054	9.2573% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 2nd March 2018 and ending on 2nd March 2032 (Forty third issue - private placement)III	0.00	0.00
055	9.6713% Secured non-cumulative non-convertible redeemable taxable bonds	0.00	0.00

	As at	31.03.2022	31.03.2021
	of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 23rd December 2017 and ending on 23rd December 2031 (Forty first issue - private placement)]]]		
056	9.558% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 29th July 2017 and ending on 29th July 2031(Fourtieth issue-private placement)]]]	0.00	0.00
057	9.3896% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 9th June 2017 and ending on 9th June 2031(Thirty ninth issue-private placement)]]]	0.00	0.00
058	9.17% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 22nd March 2017 and ending on 22nd March 2031(Thirty eighth issue-private placement)]]]	0.00	0.00
059	8.8086% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th	0.00	0.00

	As at	31.03.2022	31.03.2021
	year and in annual installments thereafter upto the end of 20th year respectively commencing from 15th December 2016 and ending on 15th December 2030 (Thirty sixth issue - private placement)III		
060	8.785% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 15th September 2016 and ending on 15th September 2030 (Thirty fifth issue - private placement)III	0.00	0.00
061	8.71% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 10th June 2016 and ending on 10th June 2030 (Thirty fourth issue - private placement)III	0.00	0.00
062	8.8493% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 25th March 2016 and ending on 25th March 2030 (Thirty second issue - private placement)III	0.00	0.00
063	9.37% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 70,00,000/- each with fourteen separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 4th June 2012 and ending on 4th December 2018 (Twenty fifth issue -	0.00	0.00

	As at	31.03.2022	31.03.2021
	private placement)III		
065	9.06% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 70,00,000/- each with fourteen separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 4th June 2012 and ending on 4th December 2018 (Twenty sixth issue - private placement)III	0.00	0.00
066	8.6077% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 9th September 2011 and ending on 9th March 2021 (Twenty fourth issue - private placement)IV	0.00	0.00
067	8.3796% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 5th August 2011 and ending on 5th February 2021 (Twenty third issue - private placement)IV	0.00	0.00
068	8.1771% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par ssimi-annually commencing from 2nd July 2011 and ending on 2nd January 2021 (Twenty second issue - private placement)IV	0.00	0.00
069	7.7125% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 2nd August 2010 and ending on 2nd February 2020 (Twenty first issue - private placement)V	0.00	0.00
070	7.552% Secured non-cumulative non-convertible redeemable taxable bonds	0.00	0.00

	As at	31.03.2022	31.03.2021
	of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 23rd September 2009 and ending on 23rd March 2019 (Twentieth issue - private placement)VI		
071	9.55% Secured non-cumulative non-convertible taxable redeemable bonds of ₹ 10,00,000/- each with ten equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of the 6th year and in annual installments thereafter upto the end of 15th year respectively from 30th April 2002 (Thirteenth issue - Part B - private placement)VIII	0.00	0.00
072	9.55% Secured non-cumulative non-convertible taxable redeemable bonds of ₹ 10,00,000/- each redeemable at par in ten equal annual installments commencing from the end of 6th year and upto the end of 15th year respectively from 18th April 2002 (Thirteenth issue -Part A - private placement)VIII	0.00	0.00
075		0.00	0.00
076		0.00	0.00
077	**Sub Total**	**0.00**	**0.00**
078	**Unsecured**	**0.00**	**0.00**
079	6.55% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 17 April 2023 (Seventieth Issue - Private Placement)	0.00	0.00
080	6.29% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 11 April 2031 (Seventy First Issue - Private Placement)	0.00	0.00
081	5.45% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 15 October 2025 (Seventy Second Issue - Private Placement)	0.00	0.00
082	6.43% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in	0.00	0.00

	As at	31.03.2022	31.03.2021
	full on 27 January 2031 (Seventy Third Issue - Private Placement)		
083	6.87% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 21 April 2036 (Seventy Fourth Issue - Private Placement)	0.00	0.00
084	6.69% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 13 September 2031 (Seventy Fifth Issue - Private Placement)	0.00	0.00
085	6.74% Unsecured non-cumulative non-convertible redeemable taxable bonds of Rs.10,00,000/- each redeemable at par in full on 14 April 2032 (Seventy Sixth Issue - Private Placement)	0.00	0.00
086		0.00	0.00
087		0.00	0.00
088		0.00	0.00
089	**Sub-total**	**0.00**	**0.00**
090	**Total**	**0.00**	**0.00**
091	**Foreign Currency Notes-Unsecured**	**0.00**	**0.00**
092	4.50% Fixed Rate Notes Due for repayment on 19th March 2026	0.00	0.00
093	2.75% Fixed rate notes due for repayment on 1st February 2027	0.00	0.00
094	4.25 % Fixed rate notes due for repayment on 26th February 2026	0.00	0.00
095	4.375% Fixed Rate Note due for repayment on 26th November 2024	0.00	0.00
096	4.75 % Fixed Rate Notes due for repayment on 3rd Oct 2022	0.00	0.00
097	7.25 % Fixed green global INR denominated bonds due on 3 May 2022	0.00	0.00
098	7.375 % Fixed green global INR denominated bonds due on 10 August 2021	0.00	0.00
099	5.625% Fixed Rate Notes due for repayment on 14th July 2021	0.00	0.00
100	3.75 % Fixed rate notes due for repayment on 03 April 2024	0.00	0.00
101		0.00	0.00
102		0.00	0.00
103		0.00	0.00
104	**Sub Total**	**0.00**	**0.00**
105	**Term Loans**	**0.00**	**0.00**
106	**From Banks**	**0.00**	**0.00**
107	**Secured**	**0.00**	**0.00**
108	Rupee Loans	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 23 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
109	**Unsecured**	**0.00**	**0.00**
110	Foreign Currency Loans	0.00	0.00
111	Rupee Loans	0.00	0.00
112	**From Others**	**0.00**	**0.00**
113	**Secured**	**0.00**	**0.00**
114	Rupee Loans	0.00	0.00
115	Foreign Currency loans (guaranteed by GOI)	0.00	0.00
116	**Unsecured**	**0.00**	**0.00**
117	Foreign Currency loans (guaranteed by GOI)	0.00	0.00
118	Other Foreign currency loans	0.00	0.00
120	Rupee Loans	0.00	0.00
121	**Deposits**	**0.00**	**0.00**
122	**Unsecured**	**0.00**	**0.00**
123	Fixed Deposits	0.00	0.00
124	**Others**	**0.00**	**0.00**
125	**Unsecured**	**0.00**	**0.00**
126	Bonds Application Money Pending Allotment	0.00	0.00
127	**Sub-total**	**0.00**	**0.00**
128	**Total**	**0.00**	**0.00**
129	Less:- Interst accrued but not due on secured borrowings	0.00	0.00
130	Less:- Interst accrued but not due on unsecured borrowings	0.00	0.00
131	Less:- Current maturities of long term borrowings	0.00	0.00
132	Bonds-Secured	0.00	0.00
133	Fixed Rate Notes	0.00	0.00
135	Foreign currency loans from Banks- unsecured	0.00	0.00
136	Rupee loans from banks- Secured	0.00	0.00
137	Rupee loans from banks- unsecured	0.00	0.00
138	Rupee Term loan from Others - Secured	0.00	0.00
139	Foreign currency loans from others- unsecured (Guaranteed by GOI)	0.00	0.00
140	Other foreign currency loans from others- unsecured	0.00	0.00
141	Rupee loans from others- unsecured	0.00	0.00
142		0.00	0.00
143		0.00	0.00
144		0.00	0.00
145		0.00	0.00
146		0.00	0.00
147		0.00	0.00
148		0.00	0.00
149		0.00	0.00
150		0.00	0.00
151		0.00	0.00
200	**Total**	**0.00**	**0.00**

एनटीपीसी NTPC
A Maharatna Company

PAKRI BARWADIH COAL MINE

NOTE NO. 24 TO THE FS-NCL-TRADE PAYABLES (Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**TRADE PAYABLES(NON CURRENT)**	**0.00**	**0.00**
002	**For Goods and Services**	**0.00**	**0.00**
003	- Micro & Small Enterprises	44,287.65	0.00
004	- Others	3,151,156.93	3,641.06
005		0.00	0.00
006	**Total**	**3,195,444.58**	**3,641.06**

PAKRI BARWADIH COAL MINE

NOTE NO. 25 TO THE FS-NCL-OTHER FINANCIAL LIABILITIES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**OTHER FINANCIAL LIABILITIES (NON-CURRENT)**	**0.00**	**0.00**
002	Payable for Capital Expenditure	0.00	0.00
003	- Micro & Small Enterprises	0.00	0.00
004	- Others	0.00	0.00
005	Others	0.00	0.00
006	Deposits from contractors and others	0.00	0.00
007		0.00	0.00
008		0.00	0.00
009	**Total**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 26 TO THE FS-NCL-PROVISIONS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**LONG TERM PROVISIONS**	**0.00**	**0.00**
002	**Provision for Employee Benefits**	**0.00**	**0.00**
003	Opening Balance	0.00	0.00
004	Additions/ (adjustments) during the year	0.00	0.00
005	**Closing Balance**	**0.00**	**0.00**
006		0.00	0.00
007	**Others**	**0.00**	**0.00**
008	**i) Mine Closure Provision**	**0.00**	**0.00**
009	Opening Balance	2,103,000,000.00	1,960,700,000.00
010	Additions during the year	148,300,000.00	142,300,000.00
011	Amounts adjusted during the year	0.00	0.00
012	Amounts reversed during the year	0.00	0.00
013	**Closing Balance**	**2,251,300,000.00**	**2,103,000,000.00**
014		0.00	0.00
015	**ii) Stripping Activity Adjustments**	**0.00**	**0.00**
016	Opening Balance	350,110,251.00	283,366,150.00
017	Additions during the year	1,442,336,691.00	66,744,101.00
018	Amounts adjusted during the year	0.00	0.00
019	Amounts reversed during the year	0.00	0.00
020	**Closing Balance**	**1,792,446,942.00**	**350,110,251.00**
021		0.00	0.00
024		0.00	0.00
025	**TOTAL**	**4,043,746,942.00**	**2,453,110,251.00**

एनटीपीसी NTPC
A Maharatna Company

NOTE NO. 27 TO THE FS-NCL-DEFERRED TAX LIABILITIES (NET) (Amount in ₹)

	As at	Open Balance on 01.04.2021	Addition	Closing Balance on 31.03.2022
001	**DEFERRED TAX LIABILITIES (NET)**			
002	Difference of book depreciation and tax depreciation	0.00	0.00	0.00
003	Less: Deferred tax assets			
004	Provisions & Other disallowances for tax purposes	0.00	0.00	0.00
005	Unabsorbed Depreciation	0.00	0.00	0.00
006	Disallowances u/s 43B of the Income Tax Act, 1961	0.00	0.00	0.00
007	Others	0.00	0.00	0.00
008	Opening Balance	0.00	0.00	0.00
009	Additions during the year	0.00	0.00	0.00
010	Amounts adjusted during the year	0.00	0.00	0.00
011	Amounts reversed during the year	0.00	0.00	0.00
012	Closing Balance	0.00	0.00	0.00
013	MAT credit entitlement	0.00	0.00	0.00
014	**Total**	**0.00**	**0.00**	**0.00**
015	**Total**	**0.00**	**0.00**	**0.00**
016	Breakup of deferred tax assets	0.00	0.00	0.00
017	Provision	0.00	0.00	0.00
018	Statutory dues	0.00	0.00	0.00
019	Leave encashment	0.00	0.00	0.00
020	Others	0.00	0.00	0.00
021		0.00	0.00	0.00
022		0.00	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 28 TO THE FS-NCL-OTHER NON-CURRENT LIABILITIES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	Other Non current Liabilities	0.00	0.00
002	Advances from customers and others	0.00	0.00
003	Deposits from contractors and others	0.00	0.00
004	Grants	0.00	0.00
005	**TOTAL**	**0.00**	**0.00**



PAKRI BARWADIH COAL MINE

NOTE NO. 29 TO THE FS-CL-BORROWINGS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**Short Term Borrowings**	**0.00**	**0.00**
002	**Loans repayable on demand**	**0.00**	**0.00**
003	**From Banks**	**0.00**	**0.00**
004	**Secured**	**0.00**	**0.00**
005	Cash Credit	0.00	0.00
006	**Unsecured**	**0.00**	**0.00**
007	Cash Credit	0.00	0.00
008	**Other loans-unsecured**	**0.00**	**0.00**
009	Commercial Papers	0.00	0.00
010	Less: Unamortised discount on Commercial Papers	0.00	0.00
011	**Sub-Total**	**0.00**	**0.00**
012	**Current maturity of long term borrowings**	**0.00**	**0.00**
013	Bonds-Secured	0.00	0.00
014	Foreign Currency Fixed Rate Notes	0.00	0.00
015	**From Banks**	**0.00**	**0.00**
016	**Secured**	**0.00**	**0.00**
017	Rupee Term Loan	0.00	0.00
018	Foreign currency loans	0.00	0.00
019	**Unsecured**	**0.00**	**0.00**
020	Foreign currency loans	0.00	0.00
021	Rupee term loans	0.00	0.00
022	**From Others**	**0.00**	**0.00**
023	**Secured**	**0.00**	**0.00**
024	Rupee Term Loan	0.00	0.00
025	**Unsecured**	**0.00**	**0.00**
026	Foreign currency loans (Guaranteed by Government of India)	0.00	0.00
027	Other foreign currency loans	0.00	0.00
028	Rupee term loans	0.00	0.00
029	Fixed deposits	0.00	0.00
031	Sub Total	0.00	0.00
032	**TOTAL**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 30 TO THE FS-CL-TRADE PAYABLES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**TRADE PAYABLES**	**0.00**	**0.00**
002	For Goods and Services	0.00	0.00
003	- Micro & Small Enterprises	17,680,339.00	3,709,114.15
004	- Others	1,410,030,619.27	1,890,391,210.88
005		0.00	0.00
006	**Total**	**1,427,710,958.27**	**1,894,100,325.03**
007		0.00	0.00
172	**Trade payable**	**0.00**	**0.00**
173	**MSME**	**0.00**	**0.00**
174	Unbilled	347,035.00	218,853.15
175	Not due	7,700,928.00	3,490,261.00
176	**Due**	**9,632,376.00**	**0.00**
177	Disputed	0.00	0.00
178	Undisputed	9,632,376.00	0.00
179		0.00	0.00
180	**Sub-total (A)**	**17,680,339.00**	**3,709,114.15**
181		0.00	0.00
182	**Others**	**0.00**	**0.00**
183	Unbilled	311,165,370.98	135,901,992.24
184	Not due	936,012,500.00	445,377,166.54
185	**Due**	**162,852,748.29**	**1,309,112,050.30**
186	Disputed	0.00	0.00
187	Undisputed	162,852,748.29	1,309,112,050.30
188		0.00	0.00
189	**Sub-total (B)**	**1,410,030,619.27**	**1,890,391,210.88**
190		0.00	0.00
191	**Total**	**1,427,710,958.27**	**1,894,100,325.03**
192		0.00	0.00
193	**Ageing**	**0.00**	**0.00**
194	**MSME**	**0.00**	**0.00**
195	**Disputed**	**0.00**	**0.00**
196	Less than 1 year	0.00	0.00
197	1-2 years	0.00	0.00
198	2-3 years	0.00	0.00
199	More than 3 years	0.00	0.00
200	**Sub Total (I)**	**0.00**	**0.00**
201		0.00	0.00
202	**Undisputed**	**0.00**	**0.00**
203	Less than 1 year	9,632,376.00	0.00
204	1-2 years	0.00	0.00
205	2-3 years	0.00	0.00
206	More than 3 years	0.00	0.00
207	**Sub Total (II)**	**9,632,376.00**	**0.00**
208		0.00	0.00
209	**Total MSME (III)**	**9,632,376.00**	**0.00**
210		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 38 TO THE FS-CL-TRADE PAYABLES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
211	**Others**	**0.00**	**0.00**
212	**Disputed**	**0.00**	**0.00**
213	Less than 1 year	0.00	0.00
214	1-2 years	0.00	0.00
215	2-3 years	0.00	0.00
216	More than 3 years	0.00	0.00
217	**Sub Total (IV)**	**0.00**	**0.00**
218		0.00	0.00
219	**Undisputed**	**0.00**	**0.00**
220	Less than 1 year	53,359,727.20	1,165,407,451.20
221	1-2 years	1,980,598.00	139,033,669.00
222	2-3 years	107,512,423.10	107,796.00
223	More than 3 years	0.00	3,662,934.10
224	**Sub Total (V)**	**162,852,748.30**	**1,309,112,050.30**
225		0.00	0.00
226	**Total Others (VI)**	**162,852,748.30**	**1,309,112,050.30**

Locked: 24.04.2022 - 12:02:46
Run on: 24.04.2022 - 12:59:39 Version: 0

1062

PAKRI BARWADIH COAL MINE

NOTE NO. 31 TO THE FS-CL-OTHER FINANCIAL LIABILITIES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**OTHER FINANCIAL LIABILITIES (CURRENT)**	**0.00**	**0.00**
020		0.00	0.00
021	Interest accrued but not due on secured borrowings	0.00	0.00
022	Interest accrued but not due on unsecured borrowings	0.00	0.00
023	Unpaid Dividends*	0.00	0.00
024	Unpaid matured deposits and interest accrued thereon*	0.00	0.00
025	Unpaid matured bonds and interest accrued thereon*	0.00	0.00
026	Unpaid bond refund money-Tax free bonds *	0.00	0.00
027	Book Overdraft	0.00	0.00
028	Payable to Customers	0.00	0.00
029	Liability under forward exchange contact	0.00	0.00
030	Hedging cost payable to beneficiaries	0.00	0.00
031	Derivative MTM Liability	0.00	0.00
032	**Payable for Capital Expenditure**	**0.00**	**0.00**
033	- Micro & Small Enterprises	44,691,164.66	32,071,007.46
034	- Others	3,144,959,861.64	3,338,409,272.38
035	**Others Payables**	**0.00**	**0.00**
036	Deposits from contractors and others	13,626,523.36	3,027,729.00
037	Gratuity Obligations	0.00	0.00
038	Payable to employees	2,350,903.74	3,254,125.14
039	Payable to holding company	0.00	0.00
040	Retention on A/c BG encashment (Solar)	0.00	0.00
041	Payable to Solar Payment Security Account	0.00	0.00
042	Others **	2,515,994,569.00	2,516,323,602.74
043	Unspent CSR balance on ongoing Approved CSR projects	0.00	0.00
044	**Total**	**5,721,623,052.40**	**5,893,085,736.74**
045	* Represents the amounts which have not been claimed by the investor/holders of the bonds/fixed deposits. Out of the above, no amount is due for payment to Investor Education and Protection Fund.	0.00	0.00
046	** Include Payable to Hospital and other payable	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 32 TO THE FS-CL-OTHER CURRENT LIABILITIES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**OTHER CURRENT LIABILITIES**	**0.00**	**0.00**
002	Advances from customers and others	0.00	0.00
003	Deferred discount on forward exchange contact	0.00	0.00
004	Tax deducted at source and other statutory dues	793,578,646.91	781,332,463.78
005	Deposits from contractors and others	0.00	0.00
006	Government grants	0.00	0.00
007	Others	0.00	0.00
008	**Total**	**793,578,646.91**	**781,332,463.78**

PAKRI BARWADIH COAL MINE

NOTE NO. 33 TO THE FS-CL-PROVISIONS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**SHORT TERM PROVISIONS**	**0.00**	**0.00**
002	**Provision for Employee Benefits**	**0.00**	**0.00**
003	Opening balance	0.00	0.00
004	Additions/ (adjustments) during the year	0.00	0.00
005	**Closing Balance**	**0.00**	**0.00**
028	**Provisions for Obligations Incidental to Land Acquisition**	**0.00**	**0.00**
029	Opening balance	3,238,691,765.15	8,796,709,309.47
030	Additions during the year	1,050,684,655.01	814,897,190.82
031	Amounts paid during the year	2,077,856,608.84	372,956,631.70
032	Amounts reversed during the year	0.00	3,799,958,063.44
033	**Closing Balance**	**2,211,519,811.32**	**3,238,691,765.15**
035	**Provision for Tariff Adjustment**	**0.00**	**0.00**
036	Opening balance	0.00	0.00
037	Additions during the year	0.00	0.00
038	Amounts adjusted during the year	0.00	0.00
039	Amounts reversed during the year	0.00	0.00
040	**Closing Balance**	**0.00**	**0.00**
042	**Provision for shortage in Fixed Assets Pending Investigation & Others**	**0.00**	**0.00**
043	Opening balance	111,899.00	111,899.00
044	Additions during the year	495,848.00	0.00
045	Amounts adjusted during the year	0.00	0.00
046	Amounts reversed during the year	0.00	0.00
047	**Closing Balance**	**607,747.00**	**111,899.00**
048	**Provision for Arbitration**	**0.00**	**0.00**
049	Opening balance	0.00	0.00
050	Additions during the year	0.00	0.00
051	Amounts used during the year	0.00	0.00
052	Amounts reversed during the year	0.00	0.00
053	**Closing Balance**	**0.00**	**0.00**
054	**Others**	**0.00**	**0.00**
055	Opening balance	0.00	0.00
056	Additions during the year	0.00	0.00
057	Amounts used during the year	0.00	0.00
058	Amounts reversed during the year	0.00	0.00
059	**Closing Balance**	**0.00**	**0.00**
102		0.00	0.00
103	**Total**	**2,212,127,558.32**	**3,238,803,664.15**

Locked: 24.04.2022 - 12:02:46
Run on: 24.04.2022 - 12:59:43 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 34 TO THE FS-CL-CURRENT TAX LIABILITIES (NET)

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**Current liabilities - current tax liabilities (net)**	**0.00**	**0.00**
002	Opening balance	0.00	0.00
003	Additions during the year	0.00	0.00
004	Amounts adjusted during the year	0.00	0.00
005	Less: Set off against taxes paid	0.00	0.00
006	**Closing Balance**	**0.00**	**0.00**



PAKRI BARWADIH COAL MINE

NOTE NO. 35 TO THE FS--DEFERRED REVENUE

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**Deferred Revenue**	**0.00**	**0.00**
002	On account of advance against depreciation	0.00	0.00
003	On account of income from foreign currency fluctuation	0.00	0.00
004	Government grants	0.00	0.00
005	**TOTAL**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 36 TO THE FS--REGULATORY DEFERRAL ACCOUNT CREDIT BALANCES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	Regulatory deferral account credit balances	0.00	0.00
002	Exchange Differences	0.00	0.00
003		0.00	0.00
004	**Total**	**0.00**	**0.00**

Locked: 24.04.2022 - 12:02:46
Run on: 24.04.2022 - 12:09:47 Version: 0

1068

PAKRI BARWADIH COAL MINE

NOTE NO. 37 TO THE FS--REVENUE FROM OPERATIONS **(Amount in ₹)**

	For the Year ended	31.03.2022	31.03.2021
001	**REVENUE FROM OPERATIONS**	**0.00**	**0.00**
002	**Sales**	**0.00**	**0.00**
003	Energy Sales (including Electricity Duty)	0.00	0.00
004	Less : Advance against depreciation deferred (net)	0.00	0.00
005	Add: Revenue recognized out of advance against depreciation	0.00	0.00
006	Add : Exchange fluctuation receivable from customers	0.00	0.00
007	Sale of energy through trading	0.00	0.00
008	Commission (NVVN)	0.00	0.00
009	**Sub total**	**0.00**	**0.00**
010	Less: Rebate to customers	0.00	0.00
011	**Energy Sales (Total)**	**0.00**	**0.00**
012	Consultancy, project management and supervision fees	0.00	0.00
013	Lease rentals on assets on Operating lease	0.00	0.00
014	Sale of Captive Coal	18,521,036,705.78	12,820,630,935.33
015	Intra Company Elimination	0.00	0.00
017	**Sub-total**	**18,521,036,705.78**	**12,820,630,935.33**
018	**Total - Sales**	**18,521,036,705.78**	**12,820,630,935.33**
019	Sale of fly ash/ash products	0.00	0.00
020	Less: Transferred to fly ash utilisation reserve fund	0.00	0.00
021	**Sub-total**	**0.00**	**0.00**
022	**Other Operating Income**	**0.00**	**0.00**
023	Interest from customers	0.00	0.00
024	Energy Internally Consumed *	0.00	0.00
025	Interest income on Assets under finance lease	0.00	0.00
026	Recognized from deferred revenue - government grant	0.00	0.00
027	Provision written back- Tariff Adjustment	0.00	0.00
028	Income form Trading of ESCerts	0.00	0.00
029	Income from E-Mobility Business & others	0.00	0.00
030	Others	0.00	0.00
031	**Total**	**18,521,036,705.78**	**12,820,630,935.33**
040	* Valued at variable cost of generation and corresponding amount included in power charges (Note No. 42)	0.00	0.00
041	Excise duty on sale of flyash,cenospere & ash products	0.00	0.00
042	Energy sales of principal nature (NVVN)	0.00	0.00
043	Energy sales of agency nature (NVVN)	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 38 TO THE FS--OTHER INCOME **(Amount in ₹)**

	For the Year ended	31.03.2022	31.03.2021
001	**OTHER INCOME**	**0.00**	**0.00**
002	**Interest from**	**0.00**	**0.00**
004	**Financial assets at amortised cost**	**0.00**	**0.00**
005	Government Securities (8.5% Tax Free Bonds issued by the State Governments)	0.00	0.00
006	Other Bonds	0.00	0.00
007		0.00	0.00
008	Interest from Government of India Securties-Non-Trade	0.00	0.00
009	Less: Amortziation of premium	0.00	0.00
010	**Sub Total**	**0.00**	**0.00**
011	Interest from others	0.00	0.00
012	Loan to State Government in settlement of dues from customers	0.00	0.00
013	Loan to Subsidiary Companies	0.00	0.00
014	Loan to Employees	5,090,659.49	5,082,194.58
015	Deposit with banks	10,679,767.08	11,167,055.64
016	Foreign Banks	0.00	0.00
017	Interest from Contractors	12,900,337.00	19,906,724.00
018	Interest from Income Tax Refunds	0.00	0.00
019	Less : Refundable to Customers	0.00	0.00
020	**Sub Total**	**0.00**	**0.00**
021	Deposits with banks-flyash utilisation reserve fund	0.00	0.00
022	Less: transferred to flyash utilisation reserve fund	0.00	0.00
023	**Sub Total**	**0.00**	**0.00**
024	Deposits with banks- DDUGJY funds	0.00	0.00
025	Interest from Contractors- DDUGJY funds	0.00	0.00
026	Transfer to DDUGJY-Advance from customers	0.00	0.00
027	Sub-total	0.00	0.00
030	Others	0.00	0.00
031		0.00	0.00
032	**Dividend from**	**0.00**	**0.00**
033	**Longterm investments in**	**0.00**	**0.00**
034	Subsidiaries	0.00	0.00
035	Joint Ventures	0.00	0.00
036	Equity Instruments	0.00	0.00
037	**Current Investments in**	**0.00**	**0.00**
038	Mutual Funds measured at fairvalue through profit or loss	0.00	0.00
039	Current investments in mutual funds-flyash utilisation reserve fund	0.00	0.00
040	Less: transferred to flyash utilisation reserve fund	0.00	0.00
041	Lease Rent # Ash Brick Plant	0.00	0.00
042	Less: transferred to flyash utilisation reserve fund	0.00	0.00
043	Other non-operating income	0.00	0.00
044	Profit on disposal of PPE	4,362.00	64,625.40
045	Profit on redemption of GOI securities	0.00	0.00

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 38 TO THE FS--OTHER INCOME **(Amount in ₹)**

	For the Year ended	31.03.2022	31.03.2021
046	Net gain on sale of investments	0.00	0.00
047	Surcharge received from customers	0.00	0.00
048	Hire charges for equipment	0.00	0.00
049	Gain on option contract / Discount on F.ExchContract	0.00	0.00
050	Provision written back-others	0.00	0.00
051	Fair value gains/(losses) on investments in mutual funds at fair value through profit or loss	0.00	0.00
052	Interest from Solar payment security account	0.00	0.00
053	Less : Transferred to SPSA fund	0.00	0.00
054	Interest on "Retention on A/c BG encashment (Solar)"	0.00	0.00
055	Less : Transferred to "Retention on A/c BG encashment (Solar)"	0.00	0.00
056	Miscellaneous Income	4,281,147.87	1,225,642.96
057	**Total**	**32,956,293.44**	**37,460,242.58**
058	Less:Transferred to Development of Coal Mines-Note 43A	2,250.00	1,674,056.57
059	Less:Transferred to Expenditure during Construction period (net)- Note 43	0.00	0.00
060	Less: Others	0.00	0.00
062	**Total**	**32,954,043.44**	**35,592,186.01**
063		0.00	0.00
064	**Details of Miscellaneous Income**	**0.00**	**0.00**
065	Vehicle Hire Charges	105,000.00	24,000.00
066	Sale of by products & residuals	0.00	0.00
067	Township recoveries(ind. Hospital Recoveries)	200,527.97	169,162.86
068	Depreciation written back	0.00	0.00
069	Sale of Scrap	0.00	0.00
070	Receipt under loss of profit policy	0.00	0.00
071	Receipts under MBD/Fire Policy	0.00	0.00
072	Management development programme	0.00	0.00
073	Management Fee - Misc (NVVN)	0.00	0.00
074	Others	3,974,619.90	1,032,480.10
075		0.00	0.00
076	**Total (Miscellaneous Income)**	**4,281,147.87**	**1,225,642.96**
077		0.00	0.00
078	**Details of Provision written back others**	**0.00**	**0.00**
079	Doubtful debts	0.00	0.00
080	Doubtful Loans, Advances and Claims	0.00	0.00
081	Doubtful Construction Advances	0.00	0.00
082	Shortage in Construction Stores	0.00	0.00
083	Shortage in Stores	0.00	0.00
084	Obsolescence in Stores	0.00	0.00
085	Unserviceable capital works	0.00	0.00
086	Other Obligation including Arbitration	0.00	0.00
087	Shortage in Fixed Assets	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 38 TO THE FS--OTHER INCOME

(Amount in ₹)

	For the Year ended	31.03.2022	31.03.2021
0858	Diminution in value of Investment	0.00	0.00



PAKRI BARWADIH COAL MINE

NOTE NO. 35A TO THE FS--FUEL COST **(Amount in ₹)**

	For the Year ended	31.03.2022	31.03.2021
001	**FUEL COST**	**0.00**	**0.00**
002	Coal	0.00	0.00
003	Captive	15,123,996,615.67	11,613,853,679.15
004	Other than captive	-14,299,443.97	-506,053,930.66
005	Gas	0.00	0.00
006	Naptha	0.00	0.00
007	Oil	0.00	0.00
008	Biomass Pellets	0.00	0.00
009	**Total**	**15,109,697,171.90**	**11,107,799,748.49**
010		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 39 TO THE FS--EMPLOYEE BENEFITS EXPENSE

(Amount in ₹)

	For the Year ended	31.03.2022	31.03.2021
001	**EMPLOYEE BENEFITS EXPENSE**	**0.00**	**0.00**
002	Salaries and wages	494,515,738.04	404,412,901.63
003	Contribution to provident and other funds	53,668,207.68	45,605,775.55
004	Unwinding of deferred payroll expense	2,905,036.15	3,171,417.04
005	Staff welfare expenses	87,185,394.44	55,042,275.55
006	Less : Expenses transferred to Consultancy group	0.00	0.00
007		0.00	0.00
008	**Sub Total**	**638,274,376.31**	**508,232,369.77**
009	Less: Employee benefits expense allocated to fuel inventory	188,667,032.16	161,031,543.69
010	Less: Transferred/Allocated to development of coal mines	17,606,036.78	3,836,135.04
011	Less: Others	0.00	0.00
012	Less: Transferred to fly ash utilisation reserve fund	0.00	0.00
013	Less: Transferred to CSR Expenses	0.00	0.00
014	Reimbursements for employees on secondment	556,732.00	53,076.00
015	Less: Transferred to expenditure during construction period (net)- Note 43	0.00	0.00
016	**TOTAL**	**431,444,575.37**	**343,311,615.04**
017	**Managerial Remuneration paid/ payable to Directors included above (except for Directors fee which is included in Note 42)**	**0.00**	**0.00**
018	Salaries and wages	0.00	0.00
019	Contribution to provident and other funds	0.00	0.00
020	Staff welfare expenses	0.00	0.00
021	Directors fee	0.00	0.00
022		0.00	0.00
023		0.00	0.00

पवन देव जमाल/PAWAN DEV JAMTA
EOC-A-4A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 40 TO THE FS--FINANCE COSTS

(Amount in ₹)

	For the Year ended	31.03.2022	31.03.2021
001	**FINANCE COSTS**	**0.00**	**0.00**
002	Finance charges on financial liabilities measured at amortised cost	0.00	0.00
003	Bonds	710,664,802.15	582,919,660.92
004	Government of India Loans	0.00	0.00
005	Foreign currency term loans	0.00	0.00
006	Rupee term loans	877,886,782.60	934,797,317.00
007	Public deposits	0.00	0.00
008	Foreign currency bonds/notes	0.00	0.00
009	Cash Credit	0.00	0.00
010	Unwinding of discount on account of vendor liabilities	290,787,466.08	260,285,246.61
011	Commercial Papers	0.00	0.00
012	**Sub Total**	**1,879,339,050.83**	**1,778,002,233.53**
013	Interest on non financial items	0.00	0.00
014	**Other Borrowing Costs**	**0.00**	**0.00**
015	Bonds servicing & public deposit exp	764,673.54	668,043.59
016	Guarantee fee	0.00	0.00
017	Management fee	0.00	0.00
018	Commit charges/exposure premium	0.00	0.00
019	Bond issue expenses	0.00	0.00
020	Legal exp on foreign currency loans	0.00	0.00
021	Foreign currency bonds/notes exp	0.00	0.00
022	Up-front fee	0.00	0.00
023	Insurance premium on foreign currency loans	0.00	0.00
024		0.00	0.00
025	Others	0.00	0.00
026	**Sub Total (Other Borrowing cost)**	**764,673.54**	**668,043.59**
027		0.00	0.00
028	**Exchange differences regarded as an adjustment to borrowing costs**	**0.00**	**0.00**
029	**Sub Total**	**1,880,103,724.37**	**1,778,670,277.12**
030	Less: Transferred to Expenditure during construction period (net) - Note 43	0.00	0.00
031	Less: Transferred to development of coal mines- Note 43A	943,444,634.00	990,252,952.93
032		0.00	0.00
033	**Total**	**936,659,090.37**	**788,417,324.19**

PAKRI BARWADIH COAL MINE

NOTE NO. 41 TO THE FS--DEPRECIATION AND AMORTIZATION EXPENSES

(Amount in ₹)

	For the Year ended	31.03.2022	31.03.2021
001	**Depreciation and amortization expenses**	**0.00**	**0.00**
002	On property, plant and equipment- Note 2	1,214,007,379.66	1,070,528,822.63
003	On intangible assets- Note 4	1,020,403.20	661,071.69
004	Sub-total	1,215,107,782.86	1,071,189,894.32
005	Less:	0.00	0.00
006	Allocated to fuel inventory	981,422,971.92	878,735,582.13
007	Transferred to Expenditure during Construction Period (net)- Note 43	0.00	0.00
008		0.00	0.00
009	Transferred/Allocated to development of coal mines	0.00	406,083.05
010	Adjustment with deferred revenue from deferred foreign currency fluctuation	0.00	0.00
011		0.00	0.00
012	**Total**	**233,684,810.94**	**192,048,229.14**



PAKRI BARWADIH COAL MINE

NOTE NO. 42 TO THE FS--OTHER EXPENSE

(Amount in ₹)

	For the Year ended	31.03.2022	31.03.2021
001	**OTHER EXPENSES**	**0.00**	**0.00**
002	Power charges	98,374,284.00	27,292,095.24
003	Less: Recovered from contractors & employees	70,323,111.99	4,186,669.85
004	**Sub-Total(Power Charges)**	**28,051,172.01**	**23,105,425.39**
005	Water charges	0.00	0.00
006	Stores consumed	820,738.26	5,059.16
007	Rent	2,118,190.00	4,500,625.49
008	Less:Recoveries	0.00	0.00
009	**Sub-Total (Rent)**	**2,118,190.00**	**4,500,625.49**
010	Cost of captive coal produced	13,827,013,459.92	10,559,622,816.62
011	**Repairs & maintenance**	**0.00**	**0.00**
012	Buildings	7,440,606.36	6,583,010.57
013	Plant & machinery	0.00	0.00
014	Power stations	93,005,945.15	30,259,676.60
015	Construction equipment	928,560.85	3,699,747.15
016	Others	34,567,936.37	20,788,336.28
017	**Sub-total (Repairs & maintenance)**	**135,943,059.73**	**61,519,770.60**
019	Load Dispatch Center Charges	0.00	0.00
021	Insurance	3,200,683.00	1,100,687.00
022	Interest to beneficiaries	0.00	0.00
023	Rates and taxes	10,241,093.16	36,233,673.45
024	Water cess & environment protection cess	0.00	0.00
025	Training & recruitment expenses	503,500.00	157,360.01
026	Less: Receipts	0.00	0.00
027	**Sub-total (Training and recruitment expenses)**	**503,500.00**	**157,360.01**
028	Communication expenses	9,659,893.29	9,901,910.48
029	Inland Travel	25,756,470.65	19,341,991.32
030	Foreign Travel	0.00	872,541.09
031	Tender expenses	0.00	0.00
032	Less: Receipt from sale of tenders	0.00	22,878.00
033	**Sub-total (Tender expenses)**	**0.00**	**-22,878.00**
034	Payment to auditors	0.00	0.00
035	Audit fee	0.00	0.00
036	Tax audit fee	0.00	0.00
037	Other services	0.00	0.00
038	Reimbursement of expenses	0.00	0.00
039	**Sub-total (Payment to Auditors)**	**0.00**	**0.00**
040	Advertisement and publicity	4,337,331.92	1,034,224.60
041	Electricity duty	0.00	0.00
042	Security expenses	180,329,612.13	131,022,690.51
043	Entertainment expenses	4,808,744.51	4,743,160.47
044	Expenses for guest house	3,105,310.00	5,244,791.82
045	Less:Recoveries	41,709.00	25,997.00
046	**Sub-Total (Guest house expenses)**	**3,063,601.00**	**5,218,794.82**
047	Education expenses	0.00	0.00
049	Donations	0.00	0.00

Locked: 24.04.2022 - 12:02:46
Run on: 24.04.2022 - 13:00:54 Version: 0

1077

एनटीपीसी NTPC
A Maharatna Company

PAKRI BARWADIH COAL MINE

NOTE NO. 42 TO THE FS--OTHER EXPENSE **(Amount in ₹)**

	For the Year ended	31.03.2022	31.03.2021
050	Ash utilisation & marketing expenses	6,490.00	0.00
051	Directors sitting fee	0.00	0.00
053	Professional charges and consultancy fees	79,073,696.63	111,126,127.47
054	Legal expenses	35,966,792.00	19,589,671.00
055	EDP hire and other charges	3,743,896.00	1,036,883.35
056	Printing and stationery	826,643.08	1,125,570.75
057	Oil & gas exploration expenses	0.00	0.00
059	Hiring of vehicles	73,926,936.77	60,114,248.14
061	Reimbursement of L.C.charges on sales realisation	0.00	0.00
062		0.00	0.00
063	Cost of Hedging	0.00	0.00
064	Derivatives MTM loss/gain (Net)	0.00	0.00
065	Net loss/(gain) in foreign currency transactions & translations	0.00	0.00
066	Transport Vehicle running expenses	162,254.00	11,942.00
067	Horticulture Expenses	374,531.00	1,614,715.10
068	Hire charges- helicopter/aircraft.	0.00	0.00
069	Hire charges of construction equipment	14,141,871.34	37,770,534.26
070	Demurrage Charges	0.00	0.00
072		0.00	0.00
073	Miscellaneous expenses	7,416,356.53	8,248,344.97
074	Loss on disposal/write-off of PPE	0.00	0.00
075	**Sub-Total**	**14,551,730,956.94**	**11,090,995,089.85**
076	Less: Other expenses allocated to fuel inventory	13,953,906,611.79	10,574,086,653.33
077	Less: Transferred/Allocated to development of coal mines	2,211,578.92	11,834,219.60
078	Less: Transferred to fly ash utilisaSon reserve fund	0.00	0.00
079	Less: Hedging cost Net recoverable/payable from/to beneficiaries	0.00	0.00
080	Less: Others	0.00	0.00
081	Less: Transferred to CSR Expenses	0.00	0.00
082	Less:Transferred to Expenditure during Construction period(net)-Note 43	0.00	0.00
083	**Net (Generation, Administration and Other expenses)**	**595,612,766.23**	**505,074,316.92**
084	Corporate Social Responsibility Expenses	56,765,675.86	0.00
085	Less: Grants-in-aid	0.00	0.00
086	**Sub-total (Corporate Social Responsibility Expenses)**	**56,765,675.86**	**0.00**
087	**Provisions**	**0.00**	**0.00**
088	Doubtful Debts	0.00	0.00
089	Doubtful loans, advances and claims	0.00	0.00
090	Doubtful Construction Advances	0.00	0.00
091	Shortage in stores	0.00	0.00
092	Obsolete/Diminution in the value of surplus stores	0.00	0.00
093	Shortage in construction stores	0.00	0.00
094	Diminution in value of long term investments	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 42 TO THE FS--OTHER EXPENSE

(Amount in ₹)

	For the Year ended	31.03.2022	31.03.2021
095	Shortage in Fixed assets	495,848.00	0.00
096	Unfinished minimum work progress from oil & gas exploration	0.00	0.00
097	Unserviceable capital works	0.00	0.00
098	Tariff Adjustment	0.00	0.00
099	Others :	0.00	0.00
100	(i) Provision for arbitration cases	0.00	0.00
101	(ii) Other provisions	0.00	0.00
102	**Total (Provisions)**	**495,848.00**	**0.00**
103		0.00	0.00
104	**Total**	**652,874,290.09**	**505,074,316.92**
105		0.00	0.00
106	**Breakup of miscellaneous expenses.**	**0.00**	**0.00**
109	Hire charges of office equipment	116,426.00	0.00
111	Operating expenses of construction equipment	0.00	0.00
112	Operating expenses of D.G. sets	0.00	0.00
113	Furnishing expenses	55,830.00	335,660.04
114	Subscription to trade and other associations	0.00	0.00
116	Visa and entry permit charges	0.00	0.00
117	Tree plantation exp.-NTPC Land	4,500.00	0.00
118	Research & development expenses :	0.00	0.00
119	Less : Grants received for Research & development expenses	0.00	0.00
120	Sub-total (Research & development expenses)	0.00	0.00
121	Bank charges	21,952.17	6,544.32
122	Business Development Expenditure	0.00	0.00
123	Surcharge (NVVN)	0.00	0.00
124	Power Trading Expenses	0.00	0.00
125	Brokerage & commission	0.00	0.00
129	Books and periodicals	84,960.00	3,170.00
130	Claims&advances written off	0.00	0.00
131	Stores written off	0.00	0.00
132	Survey &Investigation expenses written off	0.00	0.00
133	Others	7,132,688.46	7,902,970.61
134	**Total**	**7,416,356.63**	**8,248,344.97**
135		0.00	0.00
136		0.00	0.00
137		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 43 TO THE FS--EXPENDITURE DURING CONSTRUCTION PERIOD (NET) (Amount in ₹)

	For the Year ended	31.03.2022	31.03.2021
001	**EXPENDITURE DURING CONSTRUCTION PERIOD (NET)**	**0.00**	**0.00**
002	A. Employee benefits expense	0.00	0.00
003	Salaries and wages	0.00	0.00
004	Contribution to provident and other funds	0.00	0.00
005	Unwinding of deffered payroll expenses	0.00	0.00
006	Staff welfare expenses	0.00	0.00
007	**Total (A)**	**0.00**	**0.00**
008	**B. Finance Costs**	**0.00**	**0.00**
009	Finance charges on financial liabilities measured at amortised cost	0.00	0.00
010	Bonds	0.00	0.00
011	Foreign currency term loans	0.00	0.00
012	Rupee term loans	0.00	0.00
013	Foreign currency bonds/notes	0.00	0.00
014	Unwinding of discount on account of vendor liabilities	0.00	0.00
015	Others	0.00	0.00
016		0.00	0.00
017	Other Borrowings Costs	0.00	0.00
018	Guarantee Commission	0.00	0.00
019	Management Fees/Arrangers Fees	0.00	0.00
020	Commitment charges/Exposure Premium	0.00	0.00
021	Legal Expenses on foreign currency loans	0.00	0.00
022	Foreign currency bonds/notes expenses	0.00	0.00
023	Foreign Credit Insurance Premium	0.00	0.00
024	Upfront Fee	0.00	0.00
025	Exchange Differences	0.00	0.00
026	Others	0.00	0.00
027	Exchange differences regarded as adjustment to interest cost	0.00	0.00
028	**Total (B)**	**0.00**	**0.00**
029		0.00	0.00
030	C. Depreciation and amortisation	0.00	0.00
031	**D. Generation , administration and other expenses**	**0.00**	**0.00**
032	Power charges	0.00	0.00
033	Less: Recovered from contractors & employees	0.00	0.00
034	**Sub-total(Net power charges)**	**0.00**	**0.00**
035	Water charges	0.00	0.00
036	Rent	0.00	0.00
037	Repairs & maintenance	0.00	0.00
038	Buildings	0.00	0.00
039	Construction equipment	0.00	0.00
040	Others	0.00	0.00
041		0.00	0.00
042	Insurance	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 43 TO THE FS--EXPENDITURE DURING CONSTRUCTION PERIOD (NET)

(Amount in ₹)

	For the Year ended	31.03.2022	31.03.2021
043	Rates and taxes	0.00	0.00
044	Communication expenses	0.00	0.00
045	Travelling expenses	0.00	0.00
046	Tender expenses	0.00	0.00
047	Less: Income from sale of tenders	0.00	0.00
048	**Sub-total (Net tender expenses)**	**0.00**	**0.00**
049	Advertisement and publicity	0.00	0.00
050	Security expenses	0.00	0.00
051	Entertainment expenses	0.00	0.00
052	Guest house expenses	0.00	0.00
053	Less: Receipt from guest house	0.00	0.00
054	**Sub-total (Net Guest House Expenses)**	**0.00**	**0.00**
055	Education expenses	0.00	0.00
056	Brokerage & Commission	0.00	0.00
057	Books and periodicals	0.00	0.00
058	Community development expenses	0.00	0.00
059	Professional charges and consultancy fee	0.00	0.00
060	Legal expenses	0.00	0.00
061	EDP Hire and other charges	0.00	0.00
062	Printing and stationery	0.00	0.00
063	Miscellaneous expenses	0.00	0.00
064	**Total (D)**	**0.00**	**0.00**
065	**Total (A+B+C+D)**	**0.00**	**0.00**
066	**E. Less: Other Income**	**0.00**	**0.00**
067	Interest from	0.00	0.00
068	Indian banks	0.00	0.00
069	Foreign banks	0.00	0.00
070	Others	0.00	0.00
071	Contractors	0.00	0.00
072	Hire charges	0.00	0.00
073	Sale of scrap	0.00	0.00
074	Exchange Differences	0.00	0.00
075	Miscellaneous Income	0.00	0.00
076	**TOTAL (E)**	**0.00**	**0.00**
077	F. Net actuarial gain/loss OCI	0.00	0.00
078		0.00	0.00
079	**GRAND TOTAL (A+B+C+D-E+F)**	**0.00**	**0.00**
080		0.00	0.00
081	*** Balance carried to Capital Work-in-progress - (Note 3)**	**0.00**	**0.00**

Locked: 24.04.2022 - 12:02:45
Run on: 24.04.2022 - 13:00:55 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 43A TO THE FS--EDC- COAL MINING

(Amount in ₹)

	For the Year ended	31.03.2022	31.03.2021
001	**EDC- Coal Mining**	**0.00**	**0.00**
002	A. Employee benefits expense	0.00	0.00
003	Salaries and wages	15,333,394.75	476,327.30
004	Contribution to provident and other funds	1,597,635.39	4,154.76
005	Unwinding of deffered payroll expenses	0.00	0.00
006	Staff welfare expenses	675,006.64	3,355,652.98
007	**Total (A)**	**17,606,036.78**	**3,836,135.04**
008	**B. Finance Costs**	**0.00**	**0.00**
009	Finance charges on financial liabilities measured at amortised cost	0.00	0.00
010	Bonds	421,142,365.00	498,212,030.31
011	Foreign currency term loans	0.00	0.00
012	Rupee term loans	522,302,269.00	492,040,922.62
013	Foreign currency bonds/notes	0.00	0.00
014	Unwinding of discount on account of vendor liabilities	0.00	0.00
015	Others	0.00	0.00
016		0.00	0.00
017	Other Borrowings Costs	0.00	0.00
018	Guarantee Commission	0.00	0.00
019	Management Fees/Arrangers Fees	0.00	0.00
020	Commitment charges/Exposure Premium	0.00	0.00
021	Legal Expenses on foreign currency loans	0.00	0.00
022	Foreign currency bonds/notes expenses	0.00	0.00
023	Foreign Credit Insurance Premium	0.00	0.00
024	Upfront Fee	0.00	0.00
025	Exchange Differences	0.00	0.00
026	Others	0.00	0.00
027	Exchange differences regarded as adjustment to interest cost	0.00	0.00
028	**Total (B)**	**943,444,634.00**	**990,252,952.93**
029		0.00	0.00
030	C. Depreciation and amortisation	0.00	406,083.05
031	**D. Generation , administration and other expenses**	**0.00**	**0.00**
032	Power charges	0.00	640,464.75
033	Less: Recovered from contractors & employees	0.00	507,028.23
034	**Sub-total(Net power charges)**	**0.00**	**133,436.48**
035	Water charges	0.00	0.00
036	Rent	0.00	1,800,446.58
037	Repairs & maintenance	0.00	0.00
038	Buildings	0.00	713,483.94
039	Construction equipment	0.00	112,100.00
040	Others	0.00	80,227.95
041	Cost of Captive Coal	0.00	-0.01
042	Insurance	0.00	0.00
043	Rates and taxes	25,000.00	595,505.64

Locked: 24.04.2022 - 12:02:46
Run on: 24.04.2022 - 13:09:56 Version: 0

1082

PAKRI BARWADIH COAL MINE

NOTE NO. 43A TO THE FS–EDC- COAL MINING **(Amount in ₹)**

	For the Year ended	31.03.2022	31.03.2021
044	Communication expenses	145,080.74	482,656.45
045	Travelling expenses	1,344,770.99	11,375.75
046	Tender expenses	0.00	0.00
047	Less: Income from sale of tenders	0.00	1,768.77
048	**Sub-total (Net tender expenses)**	**0.00**	**-1,768.77**
049	Advertisement and publicity	0.00	0.00
050	Security expenses	0.00	3,359,937.67
051	Entertainment expenses	117,875.00	120,559.27
052	Guest house expenses	0.00	530,653.61
053	Less: Receipt from guest house	0.00	1,143.30
054	**Sub-total (Net Guest House Expenses)**	**0.00**	**529,510.31**
055	Education expenses	0.00	0.00
056	Brokerage & Commission	0.00	0.00
057	Books and periodicals	0.00	0.00
058	Community development expenses	0.00	0.00
059	Professional charges and consultancy fee	0.00	1,453,816.15
060	Legal expenses	0.00	0.00
061	EDP Hire and other charges	0.00	19,247.65
062	Printing and stationery	0.00	0.00
063	Miscellaneous expenses	578,672.28	2,123,684.94
064	**Total (D)**	**2,211,578.92**	**11,834,219.60**
065	**Total (A+B+C+D)**	**963,262,249.70**	**1,006,329,390.62**
066	**E. Less: Other Income**	**0.00**	**0.00**
067	Interest from	0.00	0.00
068	Indian banks	0.00	0.00
069	Foreign banks	0.00	0.00
070	Others	0.00	0.00
071	Contractors	0.00	1,844,079.38
072	Hire charges	0.00	0.00
073	Sale of scrap	0.00	0.00
074	Exchange Differences	0.00	0.00
075	Miscellaneous income	2,250.00	29,977.19
076	**TOTAL (E)**	**2,250.00**	**1,874,056.57**
077	F. Net actuarial gain/loss OCI	6,473.12	-2,406.82
078		0.00	0.00
079	**GRAND TOTAL (A+B+C+D-E+F)**	**963,266,472.82**	**1,004,452,927.23**
080		0.00	0.00
081	*** Balance carried to Capital Work-in-progress - (Note 3)**	**963,266,472.82**	**1,004,452,927.23**



PAKRI BARWADIH COAL MINE

NOTE NO. 44-A TO THE FINANCIAL STATEMENTS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	Balance sheet	0.00	0.00
002	Freehold land for which conveyancing of the title is awaiting completion of legal formalities	0.00	0.00
003	(a) area (in acres)	501.05	501.05
004	(b) value (in rs)	2,625,840,950.00	2,625,840,950.00
005	Right-of-use land for which execution of lease deed is awaiting completion of legal formalities	0.00	0.00
006	(a) area (in acres)	0.00	0.00
007	(b) value (in rs)	0.00	0.00
008	Right-of-use land acquired on perpetual lease and accordingly not amortised	0.00	0.00
009	(a) area (in acres)	0.00	0.00
010	(b) value (in rs.)	0.00	0.00
011	Land in physical possesession of the company which has not been shown in the books pending settlement of price (in acres)	0.00	0.00
012	Deposit with government authorities towards land in possession of the company included in cost of land which is subject to adjus	0.00	0.00
013	**Land not in possession of the company**	**0.00**	**0.00**
014	(a) area (in acres)	0.00	0.00
015	-Freehold	0.00	0.00
016	-Right of Use	0.00	0.00
017	(b) value (in rs)	0.00	0.00
018	-Freehold	0.00	0.00
019	-Right of Use	0.00	0.00
020	Right-of-use buildings pending completion of legal formalities - value (in rs.)	0.00	0.00
021	Estimated amount of contracts remaining to be executed on capital account and not provided for	0.00	0.00
022	Property, plant & equipment	7,947,623,322.00	3,336,817,906.00
023	Intangible assets	0.00	0.00
024	Details of precommissioning expenditure	0.00	0.00
025	(a) precommissioning expenses	0.00	0.00
026	(b) precommissioning income	0.00	0.00
027	(c) net precommissioning expenditure	0.00	0.00
028		0.00	0.00
029		0.00	0.00
030		0.00	0.00
031	Exchange rate variation taken to revenue during the year (with -ve sign, if favourable)	0.00	0.00
045	Exchange rate variation capitalised during the year (with -ve sign, if favourable)	0.00	0.00
054	Short Term Leases	0.00	0.00
055	A) Rent	0.00	0.00
056	Company lease accomodation - executives	926,037.25	748,143.58
057	Company lease accomodation - directors	0.00	0.00
058	Others	2,118,190.00	4,368,125.00

PAKRI BARWADIH COAL MINE

NOTE NO. 44-A TO THE FINANCIAL STATEMENTS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
099	**Total**	**3,044,227.25**	**5,734,269.56**
101	Borrowing cost capitalised during the year	942,444,634.00	856,253,456.00
102	Revenue grants recognized during the year	0.00	0.00
103	Revenue expenditure on research and development	0.00	0.00
104	Capital expenditure on research and development	0.00	0.00
105	Expenditure on sustainability development - capital	0.00	0.00
106	Expenditure on csr- capital	0.00	0.00
107	Opening balance - CSR Liability	0.00	0.00
108	Paid/Adjusted during the Year out of Opening above	0.00	0.00
109	Amount yet to be paid against Cr Year CSR Exp	0.00	0.00
110	Closing Balance CSR- Liability (107-108+109)	0.00	0.00
111		0.00	0.00
112	Constn/acquisition of any asset	0.00	0.00
113	On purpose other than above	0.00	0.00
114		0.00	0.00
115	Disclosure under msmed act 2006:	0.00	0.00
116	(i) (a) the principal amount remaining unpaid as at year end	-62,415,791.31	-3,712,755.00
117	(i) (b) interest due there on remaining unpaid as at Year end	0.00	0.00
118	(ii) the amount of interest paid by the buyer in terms of section 16, along with the amounts of the payment made to the supplier	0.00	0.00
119	(iii) the amount of interest due and payable for the period of delay in making payment(which has been paid but beyond the appoin	0.00	0.00
120	(iv) the amount of interest accrued and remaining unpaid at the end of the year; and	0.00	0.00
121	(v) the amount of further interest remaining due and payable even in the succeeding years, until such date when the interest due	0.00	0.00
122	Amount of inventories recognized as an expense (including fuel)	15,183,631,814.52	11,139,948,150.81
123	Amount of inventories capitalised as overhauling assets out of 112 above	0.00	0.00
124	Amount capitalised as edc out of 112 above	0.00	0.00
133	Value of Imported Material Consumed during the Year	0.00	0.00
134		0.00	0.00
135	Contingent liabilities	0.00	0.00
136	A. Claims against the company not acknowledged as debts in respect of :	0.00	0.00
137	(i)Capital works	4,938,332,325.00	4,230,473,675.00
138	(ii)Land compensation cases	0.00	0.00
139	(iii)Others by state authorities towards:-	0.00	0.00
140	(a) Water royalty / water charges / nala tax	0.00	0.00
141	(b) Diversion of land / building permission fees	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 44-A TO THE FINANCIAL STATEMENTS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
142	(c) Other demands by state authorities	0.00	0.00
143	(iv) Others by fuel companies	0.00	0.00
144	(a) Disputes related to grade slippage-third party sampling	0.00	0.00
145	(b) Surface transportation charges on coal	0.00	0.00
146	(c) Take or pay claim - Gas stations	0.00	0.00
147	(d) Other claims by fuel companies not acknowledged as debt	0.00	0.00
149	B.Disputed tax demands	0.00	0.00
150	(i) Income tax	0.00	0.00
151	(ii) Excise duty	0.00	0.00
152	(iii) Sales tax	0.00	0.00
153	(iv) Service tax	0.00	0.00
154	(v) Entry tax	0.00	0.00
155	C. Others	0.00	0.00
156	**Total**	**4,938,332,325.00**	**4,230,473,675.00**
157	D. Possible reimbursement on account of contingent liabilities	0.00	0.00
158	(i) Capital works	0.00	0.00
159	(ii)Land compensation cases	0.00	0.00
160	(iii)Others (by state authorities)	0.00	0.00
161		0.00	0.00
162	(iv) Others by fuel companies	0.00	0.00
163	(v) Disputed income tax demand	0.00	0.00
164	(vi) Disputed tax demands -others	0.00	0.00
165	(vii) Others	0.00	0.00
167	**Total**	**0.00**	**0.00**
168	E.AMOUNT PAID UNDER PROTEST/ADJUSTED BY AUTHORITIES - TAX CASES	0.00	0.00
169	F.CONTINGENT ASSETS	0.00	0.00
170	Intangible under development : less than 1 year	0.00	35,028,674.44
171	Intangible under development #: 1-2 year	35,028,674.44	254,505,564.70
227	Intangible under development #: 2-3 year	254,505,564.70	2,676,926.95
277	Intangible under development #: More than 3 years	304,248,334.04	301,529,583.00
278	**Capital-Work-in Progress (CWIP)**	**0.00**	**0.00**
279	Projects in progress	6,878,341,039.68	15,622,643,549.67
280	Projects temporarily suspended	0.00	0.00
281		0.00	0.00
282		0.00	0.00
283	**Projects in progress**	**0.00**	**0.00**
284	Less than 1 year	2,050,335,496.83	1,995,088,436.53
285	1-2 years	1,889,877,699.72	3,430,910,692.01
286	2-3 years	2,740,908,360.37	1,914,249,595.81
287	More than 3 years	197,219,482.76	8,382,394,825.32
288	**Sub Total (I)**	**6,878,341,039.68**	**15,622,643,549.67**
289		0.00	0.00

Locked: 24.04.2022 - 12:02:47
Run on: 24.04.2022 - 12:59:48 Version: 0

1098

PAKRI BARWADIH COAL MINE

NOTE NO. 44-A TO THE FINANCIAL STATEMENTS **(Amount in ₹)**

	As at	31.03.2022	31.03.2021
290	**Projects temporarily suspended**	**0.00**	**0.00**
291	Less than 1 year	0.00	0.00
292	1-2 years	0.00	0.00
293	2-3 years	0.00	0.00
294	More than 3 years	0.00	0.00
295	**Sub Total (II)**	**0.00**	**0.00**
296		0.00	0.00
350	Previous year figures have been regrouped/rearranged wherever necessary.	0.00	0.00

Locked: 24.04.2022 - 12:02:47
Run on: 24.04.2022 - 12:59:48 Version: 0

1087

PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 11- RPD (ADV) CONTRACTORS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY - LONG TERM ADVANCES	0.00	0.00
002	Related Parties	0.00	0.00
003	**TOTAL (RELATED PARTY - LONGTERM)**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 18- RPD (ADV) CONTRACTORS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**RELATED PARTY - CURRENT ADVANCES**	**0.00**	**0.00**
002	UPL 1097980	0.00	0.00
003	**TOTAL (RELATED PARTY - CURRENT ADVANCES)**	**0.00**	**0.00**

Locked: 24.04.2022 - 12:02:45
Run on: 24.04.2022 - 12:59:52 Version: 0

1099

PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 19- RPD (ADV) OTHERS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY others-OCA	0.00	0.00
002	RELATED PARTY others-OCA	0.00	0.00
003	**TOTAL (RELATED PARTY - LONG TERM LOANS)**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 19- RPD (ADV) EMPLOYEES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY EMP - LONG TERM LOANS)	0.00	0.00
002	Employees	0.00	0.00
003	Total	0.00	0.00

पवन देव जामता/PAWAN DEV JAMTA
उप महाप्रबंधक (कॉर्पोरेट)
Deputy General Manager (Corporate)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 11- RPD (ADV) EMPLOYEES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY - LONG TERM ADVANCES	0.00	0.00
002	**EMPLOYEE (RELATED PARTY-LONGTERM)**	**0.00**	**0.00**



PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 16- RPD (ADV) EMPLOYEES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY - CURRENT ADVANCES	0.00	0.00
002	**EMPLOYEE ADVANCES (CURRENT)**	**0.00**	**0.00**



Locked: 24.04.2022 - 12:02:45
Run on: 24.04.2022 - 12:59:57 Version: 0

PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 17- RPD (LOANS) EMPLOYEES (Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY - CURRENT LOANS)	0.00	0.00
002	**EMPLOYEE LOANS (CURRENT)**	**0.00**	**0.00**



PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 9- RPD (LOANS) EMPLOYEES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY - LONG TERM LOANS)	0.00	0.00
002	**EMPLOYEE LOANS (RELATED PARTY -LONG TERM)**	**0.00**	**0.00**

Locked: 24.04.2022 - 12:02:45
Run on: 24.04.2022 - 12:59:59 Version: 0

1095

PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 19- RPD (ADV) CONTRACTORS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY Contractors-DCA	0.00	0.00
002	RELATED PARTY Contractors-DCA	2,021,655.00	2,504,240.00
003	**TOTAL (RELATED PARTY - LONGTERM)**	**2,021,655.00**	**2,504,240.00**

Locked: 24.04.2022 - 12:02:45
Run on: 24.04.2022 - 13:00:00 Version: 0

1696

PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 18- RPD (ADV) OTHERS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY - Current Advances	0.00	0.00
002	Others	0.00	0.00
003	RELATED PARTY - Inter-company	-110,116.42	-86,524.03



Locked: 24.04.2022 - 12:02:46
Run on: 24.04.2022 - 13:00:03 Version: 0

1887

PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 17- RPD (LOANS) OTHERS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY - CURRENT LOANS	0.00	0.00
002	Vendor	0.00	0.00
003	Customer	0.00	0.00

पवन देव जामता/PAWAN DEV JAMTA

Dep. [illegible] NTPC LIMITED

EDC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 9- RPD (LOANS) OTHERS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY - LONG TERM LOANS)	0.00	0.00
002	Vendor	0.00	0.00
003	Customer	0.00	0.00

Locked: 24.04.2022 - 12:02:45
Run on: 24.04.2022 - 13:00:05 Version: 0

1269

PAKRI BARWADIH COAL MINE

NOTE NO. 93 TO THE FS--RPD- OTHER ADVANCE-CURRENT **(Amount in ₹)**

	As at	31.03.2022	31.03.2021
001	OTHER ADVANCE-CURRENT	0.00	0.00
002	ADVANCE TO PFTRUST	0.00	0.00
003	**TOTAL**	**0.00**	**0.00**



PAKRI BARWADIH COAL MINE

NOTE NO. 64 TO THE FS-RPD- ADVANCE TO OTHERS -CURRENT

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	ADVANCE TO OTHERS -CURRENT	0.00	0.00
002	ADVANCE TO GRATUITY TRUST	0.00	0.00
003	**TOTAL**	**0.00**	**0.00**



PAKRI BARWADIH COAL MINE

NOTE NO. 44-B TO THE FS--RPD DISCLOSURE- TRANSACTIONS DURING THE PERIOD (Amount in ₹)

	For the Year ended	31.03.2022	31.03.2021
001	**1) Transactions during the year- subsidiaries**	**0.00**	**0.00**
002	Purchase of equipment, supply & erection services	0.00	0.00
003	Purchase of spares	0.00	0.00
004	Maintenance services	0.00	0.00
005	Contracts for works/services for services provided by the company	0.00	0.00
006	Deputation of employees	0.00	0.00
007	Sales of goods	0.00	1,000,946,021.07
008	Sales of property and other assets	0.00	0.00
009	**Sub-total**	**0.00**	**1,000,946,021.07**
010		0.00	0.00
011	Dividend received	0.00	0.00
012	Equity contributions made	0.00	0.00
013	Share application money pending allotment	0.00	0.00
014	Loans granted	0.00	0.00
015	Interest on Loan	0.00	0.00
016	Guarantees received	0.00	0.00
017	Guarantees provided	0.00	0.00
018	**Sub-total**	**0.00**	**0.00**
019		0.00	0.00
020	**Transactions during the year- jvs**	**0.00**	**0.00**
021	Purchase of equipment, supply & erection services	0.00	0.00
022	Purchase of spares	0.00	0.00
023	Maintenance services	126,490,189.20	159,801,092.12
024	Contracts for works/services for services provided by the company	0.00	0.00
025	Deputation of employees	0.00	0.00
026	Sales of goods	0.00	0.00
027	Sales of property and other assets	0.00	0.00
028	**Sub-total**	**-126,490,189.20**	**-159,801,092.12**
029		0.00	0.00
030	Dividend received	0.00	0.00
031	Equity contributions made	0.00	0.00
032	Share application money pending allotment	0.00	0.00
033	Loans granted	0.00	0.00
034	Guarantees received	0.00	0.00
035	Guarantees provided	0.00	0.00
036	**Sub-total**	**0.00**	**0.00**
037	**Total**	**126,490,189.20**	**1,160,749,113.19**
038	**Transactions with post employment benefit plans**	**0.00**	**0.00**
039	Contributions made during the year	0.00	0.00
040	**Compensation to key management personnel**	**0.00**	**0.00**
041	Short term employee benefits	0.00	0.00
042	Post employment benefits	0.00	0.00
043	Other long term benefits	0.00	0.00
044	Termination benefits	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 44-B TO THE FS--RPD DISCLOSURE- TRANSACTIONS DURING THE PERIOD (Amount in ₹)

	For the Year ended	31.03.2022	31.03.2021
045	Sitting Fee	0.00	0.00
046	Share based payments	0.00	0.00
047	**Sub-total**	**0.00**	**0.00**
048	**Transactions with the related parties under the control of the same government:**	**0.00**	**0.00**
049	Coal india ltd., And its subsidiaries- purchase of coal	0.00	0.00
050	Singareni coalfields ltd- purchase of coal	0.00	0.00
051	**Bhel ltd.**	**0.00**	**0.00**
052	Purchase of equipment, supply & erection services	0.00	0.00
053	Purchase of spares	0.00	0.00
054	Maintenance services	0.00	0.00
055	**Sub-total**	**0.00**	**0.00**
056	Gail (i) ltd. Supply of natural gas	0.00	0.00
057	Iocl supply of oil products	3,051,286.00	0.00
058	Bpcl-supply of natural gas and oil	0.00	0.00
059	Sail-supply of steel and iron products	23,327,048.77	0.00
060	Other entities	0.00	0.00
061	Purchase of equipments & erection services	0.00	0.00
062	Purchase of spares	0.00	0.00
063	Maintenance services	189,013,140.18	47,486,378.82
064		0.00	0.00
065	**Total**	**215,391,474.95**	**47,486,378.82**
066	**Transaction with other**	**0.00**	**0.00**
067	**Transaction with ntpc educstion and research society and ntpc foundation**	**0.00**	**0.00**
068	- transactions during the year	0.00	0.00
069	ADDITIONAL TRANSACTIONS WITH RELATED PARTIES FOR PSU	0.00	0.00
070	Additional Transactions with GAIL	0.00	0.00
071	Additional Transactions with subsidiaries	0.00	0.00
072	Additional Transactions with joint ventures	0.00	0.00
073		0.00	0.00
074		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 44-C TO THE FS--RPD DISCLOSURE- OUTSTANDING BALANCES (Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**Outstanding balance**	**0.00**	**0.00**
002	**Amount recoverable towards loans**	**0.00**	**0.00**
003	- From Subsidiaries	0.00	0.00
004	- From JVC	0.00	0.00
005	- From KMP	0.00	0.00
006	- From Others	0.00	0.00
007	Sub-total	0.00	0.00
008	**Amount recoverable other than loan**	**0.00**	**0.00**
009	- from subsidiaries	19,439,106.45	19,439,106.45
010	- from joint ventures	0.00	0.00
011	- from key managerial personnel	0.00	0.00
012	- from post employment benfit plans	0.00	0.00
013	- from others	0.00	0.00
014	Sub-total	19,439,106.45	19,439,106.45
015	**Amount payable**	**0.00**	**0.00**
016	- from subsidiaries	0.00	0.00
017	- from joint ventures	5,393,587.68	15,249,722.00
018	- from key managerial personnel	0.00	0.00
019	- from post employment benfit plans	0.00	0.00
020	- from others	0.00	0.00
021	Sub-total	5,393,587.68	15,249,722.00
022		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 70 TO THE FS-OTHER DISCLOSURES (Amount in ₹)

	As at	31.03.2022	31.03.2021
001	Disclosure regarding provisions	0.00	0.00
002	**Provision for Shortages in Fixed Assets**	**0.00**	**0.00**
003	Opening balance	111,899.00	111,899.00
004	Additions during the year - P&L	495,848.00	0.00
005	Amounts used/Adjusted during the year	0.00	0.00
006	Amounts reversed during the year - P&L	0.00	0.00
007	**Closing Balance**	**607,747.00**	**111,899.00**
008		0.00	0.00
009	**Provision for Arbitration**	**0.00**	**0.00**
010	Opening balance	0.00	0.00
011	Additions during the year - P&L	0.00	0.00
012	Additions during the year - Not through P&L	0.00	0.00
013	Amounts used during the year - P&L	0.00	0.00
014	Amounts reversed during the year - Through P&L	0.00	0.00
015	Amounts reversed during the year - Not through P&L	0.00	0.00
016	**Closing Balance**	**0.00**	**0.00**
017		0.00	0.00
018	**Provision for Tariff Adjustment & Others**	**0.00**	**0.00**
019	Opening balance	0.00	0.00
020	Additions during the year	0.00	0.00
021	Amounts adjusted during the year	0.00	0.00
022	Amounts reversed during the year	0.00	0.00
023	**Closing Balance**	**0.00**	**0.00**
024		0.00	0.00
025	**Provision for Diminution in Value of Investment**	**0.00**	**0.00**
026	Opening balance	0.00	0.00
027	Additions during the year	0.00	0.00
028	Amounts adjusted during the year	0.00	0.00
029	Amounts reversed during the year	0.00	0.00
030	**Closing Balance**	**0.00**	**0.00**
031		0.00	0.00
032	**Provision for Unserviceable CWIP**	**0.00**	**0.00**
033	Opening balance	0.00	0.00
034	Additions during the year	0.00	0.00
035	Amounts adjusted during the year	0.00	0.00
036	Amounts reversed during the year	0.00	0.00
037	**Closing Balance**	**0.00**	**0.00**
038		0.00	0.00
039	**Provision for Construction Stores**	**0.00**	**0.00**
040	Opening balance	0.00	0.00
041	Additions during the year	0.00	0.00
042	Amounts adjusted during the year	0.00	0.00
043	Amounts reversed during the year	0.00	0.00
044	**Closing Balance**	**0.00**	**0.00**
045		0.00	0.00
046	**Provision for Bad & Doubtful Capital Advances**	**0.00**	**0.00**

Locked: 24.04.2022 - 12:02:47
Run on: 24.04.2022 - 13:00:12 Version: 0

1105

NOTE NO. 70 TO THE FS-OTHER DISCLOSURES

[Amount in ₹]

	As at	31.03.2022	31.03.2021
047	Opening balance	0.00	0.00
048	Additions during the year	0.00	0.00
049	Amounts adjusted during the year	0.00	0.00
050	Amounts reversed during the year	0.00	0.00
051	**Closing Balance**	**0.00**	**0.00**
052		0.00	0.00
053	**Provision for Shortages / Obsolescense / Dimunition in value surplus Stores**	**0.00**	**0.00**
054	Opening balance	0.00	0.00
055	Additions during the year	0.00	0.00
056	Amounts adjusted during the year	0.00	0.00
057	Amounts reversed during the year	0.00	0.00
058	**Closing Balance**	**0.00**	**0.00**
059		0.00	0.00
060		0.00	0.00
061	**Provision for bad & Doubtful Loans**	**0.00**	**0.00**
062	Opening balance	0.00	0.00
063	Additions during the year	0.00	0.00
064	Amounts adjusted during the year	0.00	0.00
065	Amounts reversed during the year	0.00	0.00
066	**Closing Balance**	**0.00**	**0.00**
067		0.00	0.00
068	**Provision for bad & Doubtful Trade Recievables**	**0.00**	**0.00**
069	Opening balance	0.00	0.00
070	Additions during the year	0.00	0.00
071	Amounts adjusted during the year	0.00	0.00
072	Amounts reversed during the year	0.00	0.00
073	**Closing Balance**	**0.00**	**0.00**
074		0.00	0.00
075	**Provision for Doubful Advances/ Deposits and Claims**	**0.00**	**0.00**
076	Opening balance	0.00	0.00
077	Additions during the year	0.00	0.00
078	Amounts adjusted during the year	0.00	0.00
079	Amounts reversed during the year	0.00	0.00
080	**Closing Balance**	**0.00**	**0.00**
081		0.00	0.00
082	**Provision for Others**	**0.00**	**0.00**
083	Opening balance	0.00	0.00
084	Additions during the year	0.00	0.00
085	Amounts adjusted during the year	0.00	0.00
086	Amounts reversed during the year	0.00	0.00
087	**Closing Balance**	**0.00**	**0.00**
088		0.00	0.00
089		0.00	0.00
090	**Movement in Regulatory deferral Account**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 79 TO THE FS-OTHER DISCLOSURES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
	Balances		
091		0.00	0.00
092	**A. Regulatory deferral Account Credit Balances**	**0.00**	**0.00**
093	Opening balance (Note 36)	0.00	0.00
095	**Movement**	**0.00**	**0.00**
096	ERV	0.00	0.00
097	Depreciation	0.00	0.00
098	**Closing balance**	**0.00**	**0.00**
099		0.00	0.00
100	**B. Regulatory deferral Account Debit Balances**	**0.00**	**0.00**
101	Opening balance (Note 20)	0.00	0.00
102	Pay Revision	0.00	0.00
103	Ash TPT RRA	0.00	0.00
104	**Closing balance**	**0.00**	**0.00**
105		0.00	0.00
106	**C. Total**	**0.00**	**0.00**
107	**Opening (A+B)**	**0.00**	**0.00**
108	**Net Movement (A+B)**	**0.00**	**0.00**
109	**Closing (A+B)**	**0.00**	**0.00**
110		0.00	0.00

PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 11- RPD (ADV) SUBSIDIARIES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY - LONG TERM ADVANCES	0.00	0.00
002	SUBSIDIARIES	0.00	0.00
003	**TOTAL (RELATED PARTY - LONGTERM)**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 11- RPD (ADV) JOINT VENTURES (Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY - LONG TERM ADVANCES	0.00	0.00
002	JOINT VENTURES	0.00	0.00
003	**TOTAL (RELATED PARTY - LONGTERM)**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 11- RPD (ADV) OTHERS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY - LONG TERM ADVANCES	0.00	0.00
002	OTHERS	0.00	0.00
003	**TOTAL (RELATED PARTY - LONGTERM)**	**0.00**	**0.00**



PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 18- RPD (ADV) SUBSIDIARIES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY - Current Advances	0.00	0.00
002	Subsidiries	0.00	0.00
003	**Total**	**0.00**	**0.00**

Locked: 24.04.2022 - 12:02:45
Run on: 24.04.2022 - 13:00:17 Version: 0

1111

PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 18- RPD (ADV) JOINT VENTURES **(Amount in ₹)**

	As at	31.03.2022	31.03.2021
001	RELATED PARTY - Current Advances	0.00	0.00
002	Joint Ventures	0.00	0.00
003	**RELATED PARTY - Inter-company**	**0.00**	**0.00**



PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 10- RPD (ADV) SUBSIDIARIES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY	0.00	0.00
002	RELATED PARTY-Subsidiaries	0.00	0.00
003	**TOTAL (RELATED PARTY)**	**0.00**	**0.00**



PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 19- RPD (ADV) JOINT VENTURES (Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY	0.00	0.00
002	RELATED PARTY -Joint Ventures	0.00	0.00
003	**TOTAL (RELATED PARTY - LONGTERM)**	**0.00**	**0.00**



PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 9- RPD (LOANS) SUBSIDIARIES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY - LONG TERM LOANS)	0.00	0.00
002	Subsidiaries	0.00	0.00
003		0.00	0.00

पवन देव जमाता/PAWAN DEV JAMATA

Locked: 24.04.2022 - 12:02:45
Run on: 24.04.2022 - 13:00:22 Version: 0

1115

PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 9- RPD (LOANS) JOINT VENTURE

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY - LONG TERM LOANS)	0.00	0.00
002	Joint Venture	0.00	0.00
003		0.00	0.00

Locked: 24.04.2022 - 12:02:45
Run on: 24.04.2022 - 13:00:24 Version: 0

(118)

PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 17- RPD (LOANS) SUBSIDIARIES

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY - CURRENT LOANS	0.00	0.00
002	Subsidiaries	0.00	0.00
003		0.00	0.00

PAKRI BARWADIH COAL MINE

ANNEXURE TO NOTE 17- RPD (LOANS) JOINT VENTURE (Amount in ₹)

	As at	31.03.2022	31.03.2021
001	RELATED PARTY - CURRENT LOANS	0.00	0.00
002	Joint Ventures	0.00	0.00
003		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 23A TO THE FS-NCL-LEASE BORROWINGS

(Amount in ₹)

	As at	31.03.2022	31.03.2021
001	**Non-current financial liabilities - Lease liabilities**	**0.00**	**0.00**
002	**Lease liabilities**	**0.00**	**0.00**
003	Long term maturities of Finance Lease Liabilities (Secured) IX	0.00	0.00
004	Long term maturities of Finance Lease Liabilities (Unsecured) X	1,759,084,316.01	1,720,042,806.01
005	**Sub-Total**	**1,759,084,316.01**	**1,720,042,806.01**
006	**Less: current maturities of lease liabilities**	**0.00**	**0.00**
007	Finance Lease obligations - secured	0.00	0.00
008	Finance Lease obligations - unsecured	80,689,139.00	70,739,702.00
009	**Sub-Total**	**80,689,139.00**	**70,739,702.00**
010	**Total**	**1,678,395,177.01**	**1,649,303,104.01**

PAKRI BARWADIH COAL MINE

NOTE NO. 29A TO THE FS-CL-LEASE BORROWINGS **(Amount in ₹)**

	As at	31.03.2022	31.03.2021
001	**Current financial liabilities - Lease liabilities**	**0.00**	**0.00**
002	Current maturity of finance lease obligations (secured)	0.00	0.00
003	Current maturity of finance lease obligations (unsecured)	80,689,139.00	70,739,702.00
004	**Total**	**80,689,139.00**	**70,739,702.00**

Locked: 24.04.2022 - 12:02:46
Run on: 24.04.2022 - 13:00:31 Version: 0

1120

Audited Financial Statements as on 31.03.2023



PAKRI BARWADIH COAL MINE

BALANCE SHEET

(Amount in ₹)

	As at	Note	31.03.2023	31.03.2022
[illegible]	ASSETS		[illegible]	[illegible]
[illegible]			[illegible]	[illegible]
[illegible]	NON-CURRENT ASSETS		[illegible]	[illegible]
[illegible]	PROPERTY, PLANT & EQUIPMENT	4	[illegible]	[illegible]
[illegible]	CAPITAL WORK-IN-PROGRESS	5	[illegible]	[illegible]
[illegible]	INVESTMENT PROPERTY		[illegible]	[illegible]
[illegible]	INTANGIBLE ASSETS	6	[illegible]	[illegible]
[illegible]	INTANGIBLE ASSETS UNDER DEVELOPMENT	7	[illegible]	[illegible]
[illegible]	FINANCIAL ASSETS		[illegible]	[illegible]
[illegible]	i) Equity investments in Subsidiaries and Joint Ventures	8	[illegible]	[illegible]
[illegible]	ii) Other investments	9	[illegible]	[illegible]
[illegible]	iii) Trade receivables	10	[illegible]	[illegible]
[illegible]	iv) Loans	11	[illegible]	[illegible]
[illegible]	v) Other financial assets	12	[illegible]	[illegible]
[illegible]	Other Non-Current Assets	13	[illegible]	[illegible]
[illegible]	TOTAL NON-CURRENT ASSETS		[illegible]	[illegible]
[illegible]			[illegible]	[illegible]
[illegible]	CURRENT ASSETS		[illegible]	[illegible]
[illegible]	Inventories	14	[illegible]	[illegible]
[illegible]	FINANCIAL ASSETS		[illegible]	[illegible]
[illegible]	i) Other Investments	15	[illegible]	[illegible]
[illegible]	ii) Trade Receivables	16	[illegible]	[illegible]
[illegible]	iii) Cash and Cash Equivalents	17	[illegible]	[illegible]
[illegible]	iv) Bank balances other than Cash and Cash Equivalents	18	[illegible]	[illegible]
[illegible]	v) Loans	19	[illegible]	[illegible]
[illegible]	vi) Other financial assets	20	[illegible]	[illegible]
[illegible]	Current Tax Assets (Net)		[illegible]	[illegible]
[illegible]			[illegible]	[illegible]
[illegible]	Other Current Assets	21	[illegible]	[illegible]
[illegible]			[illegible]	[illegible]
[illegible]	TOTAL CURRENT ASSETS		[illegible]	[illegible]
[illegible]	Assets classified as Held for Sale		[illegible]	[illegible]
[illegible]	Regulatory Deferral Account Debit Balances	22	[illegible]	[illegible]
[illegible]	TOTAL ASSETS		[illegible]	[illegible]
[illegible]	EQUITY AND LIABILITIES		[illegible]	[illegible]
[illegible]	EQUITY		[illegible]	[illegible]
[illegible]	Equity Share Capital	23	[illegible]	[illegible]
[illegible]	Other Equity	24	[illegible]	[illegible]
[illegible]	TOTAL EQUITY		[illegible]	[illegible]
[illegible]			[illegible]	[illegible]
[illegible]	LIABILITIES		[illegible]	[illegible]
[illegible]	Non-Current Liabilities		[illegible]	[illegible]
[illegible]	FINANCIAL LIABILITIES		[illegible]	[illegible]
[illegible]	i) [illegible]	25	[illegible]	[illegible]

Locked: 20.04.2023 - 14:07:25
Run on: 23.04.2023 - 14:09:32 Version: 0

Page 1 of 3

PAKRI BARWADIH COAL MINE

BALANCE SHEET

(Amount in ₹)

	As at	Note	31.03.2023	31.03.2022
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

	Note	31.03.2023	31.03.2022

For CEO and CFO Certification

(a) We acknowledge our responsibility for preparation of financial statements in accordance with the requirements of the Companies Act 2013 and recognised accounting policies and practices. We further acknowledge our responsibility for preparation of financial statement according to the requirement of Section 134(5) of the Companies Act, 2013 relating to Director's Responsibilities Statement.

(b) We have reviewed these financial statements to the best of our knowledge and belief that these statements do not contain any materially untrue statement or omit any material fact or contain statements that might be misleading and these statements together present a true and fair view of the our Unit's affairs and are in compliance with existing accounting standards, applicable laws and regulations.

(c) To the best of our knowledge and belief, there are no transactions entered into by the Unit during the year which are fraudulent, illegal or violative of the company's code of conduct.

(d) We are responsible for establishing and maintaining internal controls for financial reporting and we have evaluated the effectiveness of the internal control system of the Unit pertaining to financial reporting and have disclosed to the auditors, the deficiencies in the design or operation of such internal controls, if any, of which we are aware and the steps we have taken or propose to take to rectify these deficiencies.

(e) We have indicated to the company's auditors significant changes in internal control over financial reporting during the year, significant changes, if any, in accounting policies during the year and the same have been disclosed in the notes to the financial statements, and instances of significant fraud of which we have become aware and the involvement therein, if any, of the management or an employee having a significant role in the company's internal control system over financial reporting.

S. Srinivasan

(Head of Finance)

(Head of Unit)

शिवम मीनाक्षम / SHIVAM SINGH
मुख्य महाप्रबंधक (भारी मशीनरी) / CGM (Heavy Machinery)
एनटीपीसी लिमिटेड / NTPC Limited
भारी मशीनरी संचालन प्रबंधन परिसंघ / PECOP
हजारीबाग / Hazaribag

EOC, A-84, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

STATEMENT OF PROFIT AND LOSS

(Amount in ₹)

	For the Year ended	Note	31.03.2023	31.03.2022
[illegible]	Revenue		0.00	0.00
[illegible]	Revenue from operations	27	[illegible]	[illegible]
[illegible]	Other income	28	[illegible]	[illegible]
[illegible]	Total Revenue		[illegible]	[illegible]
[illegible]	Expenses		0.00	0.00
[illegible]	Fuel including cost of carbon cost	[illegible]	[illegible]	[illegible]
[illegible]	Employee benefits expenses	29	[illegible]	[illegible]
[illegible]	Stocks of purchased for trading		0.00	0.00
[illegible]	Finance costs	40	[illegible]	[illegible]
[illegible]	Stock consumption and transportation expenses	41	[illegible]	[illegible]
[illegible]			0.00	0.00
[illegible]	Other expenses	42	[illegible]	[illegible]
[illegible]	CC expenses charge to revenue		[illegible]	[illegible]
[illegible]	Less: Cost expenses transferred to CC		0.00	0.00
[illegible]	Total expenses		[illegible]	[illegible]
[illegible]	Profit before exceptional items & tax		[illegible]	[illegible]
[illegible]	Exceptional items		0.00	0.00
[illegible]	Profit before tax		[illegible]	[illegible]
[illegible]	Tax expenses		0.00	0.00
[illegible]	Current tax		0.00	0.00
[illegible]	Deferred tax		0.00	0.00
[illegible]			0.00	0.00
[illegible]	Total Tax expense		0.00	0.00
[illegible]	Profit for the period before regulatory deferral account balances		[illegible]	[illegible]
[illegible]	Movement in regulatory deferral account balances		0.00	0.00
[illegible]	Regulatory deferral account - deferred		0.00	0.00
[illegible]	Others		0.00	0.00
[illegible]	Tax expense on Regulatory deferral account balances		0.00	0.00
[illegible]	Movement in Regulatory deferral account balances (Net of Tax)		0.00	0.00
[illegible]	Profit for the period year		[illegible]	[illegible]
[illegible]	Other comprehensive income		0.00	0.00
[illegible]	(A) Items that will not be reclassified to profit or loss		0.00	0.00
[illegible]	- Net gains/(losses) on the value of equity instruments through other comprehensive income		0.00	0.00
[illegible]	Income tax on above that will not be reclassified to profit or loss		0.00	0.00
[illegible]	- Net actuarial gains/(losses) on defined benefit plans		[illegible]	[illegible]
[illegible]	Income tax on above that will not be reclassified to profit or loss		0.00	0.00
[illegible]			0.00	0.00
[illegible]	Other comprehensive income for the year, net of income tax		[illegible]	[illegible]
[illegible]			0.00	0.00
[illegible]			0.00	0.00
[illegible]	Total Comprehensive income for the year		[illegible]	[illegible]

Locked: 23.04.2023 - 14:07:24

Run on: 23.04.2023 - 14:00:44, Version: 0

पंकज देव जायसवाल/PANKAJ DEV JAISWAL

Deputy General Manager (Accounts)

एन टी पी सी लिमिटेड/NTPC LIMITED

EOC, A-8A, Sector-24, Noida-201301 (UP)

PAKRI BARWADIH COAL MINE

STATEMENT OF PROFIT AND LOSS

(Amount in ₹)

	For the Year ended	Note	31.03.2023	31.03.2022
[illegible]			0.00	0.00
[illegible]	Earnings per equity share		0.00	0.00
[illegible]	Notes & Forms		0.00	0.00
[illegible]	Significant Accounting Policies		0.00	0.00
[illegible]			0.00	0.00
[illegible]	The accompanying Notes 1 to 44 form an integral part of these financial statements.		0.00	0.00

(Auditor Initial & Stamp)

(Head of Finance)

(Head of Unit)

सिंगम श्रीवास्तव / SHIVAM SRIVASTAVA

एनटीपीसी लिमिटेड / NTPC Limited

पावन देव जामटा / PAWAN DEV JAMTA

ECC, A-8A, Sector-24, Noida-201301 (U.P.)

Locked: 23.04.2023 - 14:07:24

Run on: 23.04.2023 - 14:09:44 Version: 0

PAKRI BARWADIH COAL MINE

OTHER COMPREHENSIVE INCOME

(Amount in ₹)

	For the Year ended	31.03.2023	31.03.2022
001		0.00	0.00
002	**Other comprehensive income**	**0.00**	**0.00**
003	**(A) Items that will not be reclassified to profit or loss**	**0.00**	**0.00**
004	- Net gains/(losses) on fair value of equity instruments through other comprehensive income	0.00	0.00
005	Income tax on above that will not be reclassified to profit or loss	0.00	0.00
006	- Net actuarial gains/(losses) on defined benefit plans	-2,916,944.93	-1,891,510.68
007	Income tax on above that will not be reclassified to profit or loss	0.00	0.00
008		0.00	0.00
009	(B) Items that will be reclassified to profit or loss	0.00	0.00
010	Income tax relating to above items that will be reclassified to profit or loss	0.00	0.00
011		0.00	0.00
012	**Other comprehensive income for the year, net of income tax**	**-2,916,944.93**	**-1,891,510.68**
013		0.00	0.00
014	**Total comprehensive income for the year (A+B)**	**-2,916,944.93**	**-1,891,510.68**

पवन देव जनता/PAWAN DEV JAMTA
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Locked: 23.04.2023 - 14:07:24
Run on: 23.04.2023 - 14:08:43 Version: 0

Note forming part of Balance Sheet
Note 2 : Property, Plant And Equipment
Business Area :1040

(Amount in Rupees)

Asset Class	Opening Gross Block As At 01.04.2022	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2023	Opening Depreciation As At 01.04.2022	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2023	Net Block As At 31.03.2023	Net Block As At 31.03.2022
1 TANGIBLE ASSETS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 Land - (including development expenses)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 Freehold	2781437457.00	1007194687.00	0.00	3788632460.00	0.00	0.00	0.00	0.00	3788632460.00	2781437457.00
4 Right of Use	3602599908.59	151755000.00	0.00	3814454908.59	1488629205.34	141803167.90	0.00	1630432373.24	2184022535.35	2113970703.25
5 Submergence	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6 Right of use - Cost Bearing Area Land	15305000739.00	520006051.00	0.00	15825006790.00	1815017378.57	5999409.00	0.00	2479436093.69	13345186760.60	13305981410.71
7 Roads,bridges, culverts & hutments	891763921.90	8661645.76	0.00	891345567.66	722136711.12	26122917.98	0.00	1482115029.10	343183938.56	169650210.78
8 Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9 Freehold	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 Main plant	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11 Others	3044203394.69	12812991.64	0.00	3184343394.33	2425668309.74	27430002.93	0.00	2453098442.67	806569714.33	681953954.93
12 Right of Use	5926581.00	0.00	0.00	5926581.00	5811999.86	214999.19	0.00	6026999.05	0.00	214999.19
13 Temporary erection	963041.00	0.00	0.00	963041.00	963041.00	0.00	0.00	963041.00	0.00	0.00
14 Water Supply, drainage & sewerage system	1906393.45	0.00	0.00	1906393.45	1154877.37	5570156.57	0.00	10424132.94	3893339.51	7210415.18
15 Hydraulic works, barrages, dams, tunnels and power channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16 MGR track and signalling system	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17 Railway siding	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18 Earth dam reservoir	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19 Plant and machinery(including assembled civil works) Owned by the	7810344338.83	3819790203.69	0.00	11630033998.76	5847920437	603013867.61	0.00	7214827731.78	12729847155.98	1962018734.83

Director/PAWAN DEV JAMTA
Dept. - Commercial
PF 47 47 47 /0/2023
EOC 4.44 Sq.

Note forming part of Balance Sheet
Note 2 : Property, Plant And Equipment
Business Area :1040

[Amount in Rupees]

Asset Class	Opening Gross Block As At 01.04.2022	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2023	Opening Depreciation As At 01.04.2022	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2023	Net Block As At 31.03.2023	Net Block As At 31.03.2022
20 Plant and machinery(including associated civil works) -Right of use Asset	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21 Furniture and fixtures	42398832.30	2230811.00	(10024.00)	44619025.00	12707440.87	3011513.04	(4255.21)	15714429.10	28904595.90	29691391.43
22 Assets under 5 Km Scheme	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23 Vehicles including speedboats / helicopter - Owned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24 Vehicles including speedboats / helicopter - Leased	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 Office equipment	39852810.13	7091627.12	(99700.00)	43881137.25	9750772.81	2913738.78	(32913.00)	20056598.42	16730578.83	14930437.32
26 EDP, WP machines and satcom equipment	30492704.77	18908148.00	(160281.90)	49117311.87	20841223.50	4988606.97	(188997.20)	31641465.31	13903052.30	9554974.41
27 Construction equipments	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28 Electrical installations	900539467.80	287414401.42	0.00	1187809869.22	197294498.41	52966515.35	0.00	250153013.75	937791855.50	713321969.39
29 Communication equipments	19124701.30	101162600	0.00	19136327.30	7548000.70	2708641.87	0.00	10256642.27	8879684.80	8576700.60
30 Hospital equipments	7091138.34	1342407.00	0.00	8433545.34	880791.47	1458727.70	0.00	2339519.17	6094026.17	6210346.87
31 Laboratory and workshop equipments	4694135.99	0.00	0.00	4694135.99	1393233.01	299423.51	0.00	1692656.52	3001479.47	3300902.98
32 Capital expenditure on assets not owned by the Company	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33 Assets of Government	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note forming part of Balance Sheet
Note 2 : Property, Plant And Equipment
Business Area :1040

(Amount in Rupees)

Asset Class	Opening Gross Block As At 01.04.2022	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2023	Opening Depreciation As At 01.04.2022	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2023	Net Block As At 31.03.2023	Net Block As At 31.03.2022
34 Lease-Shares from Government	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35 Loan Recoverable from GOI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36 Assets for sale utilisation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37 (Loss)-Adjusted from fly ash utilisation reserve fund	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38 Site Restoration Cost	1624356003.00	0.00	0.00	1624356003.00	1116918[illegible]	3[illegible]	0.00	[illegible]	[illegible]	[illegible]
39 Mining Properties	9734218433.40	781043811.16	0.00	10818950244.89	1105845772.00	545090026.39	0.00	1650120690.39	9859134254.50	8628372661.40
Grand Total (Tangible)	402710388878.97	11705777452.05	(259705.80)	474436969813.01	39248834[illegible]	1984403[illegible]	(345022.11)	5893931[illegible]	418[illegible]	3635101[illegible]
Grand Total- Prev Year (Tangible)	379281[illegible]	1224911[illegible]	(1664788.00)	402710388878.97	2710814080.87	1214387[illegible]	202882.28	3924504282.87	3633101[illegible]	3321[illegible]

Note forming part of Balance Sheet
Note 2 : Property, Plant And Equipment
Business Area :1040

(Amount in Rupees)

Details of Adjustments of Gross Block and Depreciation/Amortization				
Particulars	Gross Block		Depreciation/Amortization	
	Tangible As At: 31.03.2023	Tangible As At: 31.03.2022	Tangible As At: 31.03.2023	Tangible As At: 31.03.2022
Disposal of assets	(188381.90)	(130326.70)	(188381.90)	(130326.70)
Retirement of assets	0.00	0.00	0.00	0.00
Cost adjustments	0.00	0.00	0.00	0.00
Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Depreciation on construction equipment capitalised as EDC	0.00	0.00	0.00	0.00
Prior Period Depreciation due to Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Special Depreciation (As per New Policy)	0.00	0.00	0.00	0.00
Transfer in /out because of Inter Unit transfers	(71324.00)	(1534471.33)	(57840.21)	352919.08
Others	0.00	0.00	0.00	0.00
TOTAL	(259705.90)	(1664798.03)	(246222.11)	222592.38

Note: Additions during the year includes capital expenditure towards CSR (in Rs.) : 0.00



Report Date : 21.04.2023 4:08:04 Version : 0 Sales Limited (Date: 20.04.2023)

Note forming part of Belance Sheet
Note 3: Capital-Work-in-Progress
Business Area: PAIKRI BARWADIH COAL MINE

(Amount in Rupees)

Sl No	Asset Class	As At 01.04.2022	Addition	Deduction/ Adjustment	Capitalised	As At 31.03.2023
	1	2	3	4	5	6
1	CAPITAL WORK-IN-PROGRESS					
2	Development of land	7519815.84	3847801.79	(11042547.63)		
3	Roads, bridges, culverts & helipads		1957483.63	(95067.63)	4862636.63	4862636.63
4	Piling and foundation					
5	Buildings					
6	Main plant					
7	Others	15837798.74	2888035.68	1449477.10	11359983.64	30735295.36
8	Temporary erection		943930.42	(943930.42)		
9	Water supply, drainage and sewerage system	2192808.00	1841100.00	(1891100.00)		2192808.00
10	Hydraulic works, barrages, dams, tunnels and power channel					
11	MGR track and signalling system					
12	Railway siding					
13	Earth dam /reservoir					
14	Plant and equipment	84199975331.70	1131264168.69	(8007360261.70)	83017976.45	13813084672.23
15	Facilities and Issues					
16	Vehicles					
17	Office equipment					
18	EOT/WP machines & assorn equipment					
19	Construction equipments					
20	Electrical installations	1118427280.16	3629612.24	(784141209.56)	20423818.00	432118103.80
21	Communication equipment		887080.00			887080.00
22	Hospital equipments					
23	Laboratory and workshop equipments					
24	Assets under 90th Scheme of the GOI					
25	Capital expenditure on assets not owned by the company					
26	Expenditure towards development of coal mines	2094740.74	7140529.65			15485070.11
27	Survey Investigation Consultancy & Supervision Chs					
28	Difference in exchange on foreign currency loans					

Report Date: 23-Aug-2023 14:05:46 | Version: 10 | Status Locked | Done |

Note forming part of Balance Sheet
Note 3: Capital-Work-in-Progress
Business Area: PAKRI BARWADIH COAL MINE

(Amount in Rupees)

Sl No	Asset Class	As At 01.04.2023	Addition	Deduction/ Adjustment	Conversion	As At 31.03.2023
	1	2	3	4	5	6
29	Expenditure towards diversion of forest land					
30	Pre-commissioning expenses (net)					
31	ExpPerialAttrib-ute ex annual Project	38416.59	(38416.59)			
32	Expenditure During Construction Period (net)*					
33	LESS : Allocated to related works					
34	LESS : Provision for Unservicable works					
35	Construction stores (At Cost)					
36	Steel		10013096.13	(10013096.13)		
37	Cement					
38	Others	140134648.66	306119962.16	(377960424.00)		74274187.04
39	Sub-total	140134648.66	316433058.29	(388093520.13)		74274187.04
40	LESS : Provision for shortages					
41	Sub-total	140134648.66	316433058.29	(388093520.13)		74274187.04
42	Total CWIP	6878341039.66	1714763218.63	(6158747808.48)	46293097.87	2188293555.48
43						
44						
45	PREVIOUS YEAR TOTAL	15622943549.67	(3964678200.87)	878207189.04	7515141185.50	6878341039.66

Note:- Additions during the year includes capital expenditure towards CSR (in Rs.) : 0.00

Report Date : 23.04.2023 11:08:49 Version : 0 Status Locked | Date : 2

Note forming part of Balance Sheet
Note-4 Non Current Assets- Intangible Assets
Business Area :1040

(Amount in Rupees)

Asset Class	Opening Gross Block As At 01.04.2022	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2023	Opening Depreciation As At 01.04.2022	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2023	Net Block As At 31.03.2023	Net Block As At 31.03.2022
INTANGIBLE ASSETS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 Right to Use- Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 -Others	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 -Software	6913039.84	22406969.08	0.00	29320998.88	4223817.70	3778814.80	0.00	8002632.50	21318206.38	2690122.14
Grand Total (Intangible)	6913039.84	22406969.08	0.00	29320998.88	4223817.70	3778814.80	0.00	8002632.50	21318206.38	2690122.14
Grand Total Prev Year (Intangible)	5165545.84	1748394.00	0.00	6913939.84	3203414.50	1020403.20	0.00	4223817.70	2690122.14	1962131.34

Report Date : 23.04.2023 14:04:52 Version : 0 - Status Logged / Date : 23.04.2023) 4

Note forming part of Balance Sheet
Note-4 Non Current Assets- Intangible Assets
Business Area :1040

(Amount in Rupees)

Details of Adjustments of Gross Block and Depreciation/Amortization				
Particulars	Gross Block		Depreciation/Amortization	
	InTangible As At: 31.03.2023	InTangible As At: 31.03.2022	InTangible As At: 31.03.2023	InTangible As At: 31.03.2022
Disposal of assets	0.00	0.00	0.00	0.00
Retirement of assets	0.00	0.00	0.00	0.00
Cost adjustments	0.00	0.00	0.00	0.00
Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Depreciation on construction equipment capitalised as EDC	0.00	0.00	0.00	0.00
Prior Period Depreciation due to Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Special Depreciation (As per New Policy)	0.00	0.00	0.00	0.00
Transfer in /out because of Inter Unit transfers	0.00	0.00	0.00	0.00
Others	0.00	0.00	0.00	0.00
TOTAL	0.00	0.00	0.00	0.00

Note:- Additions during the year includes capital expenditure towards CSR (in Rs.) : 0.00



Report Date : 22.04.2023 14:06:38 Version : 0 Status Locked : Date : 22.04.2023 1

Note forming part of Balance Sheet
Note 5: Intangible Assets under Development
Business Area: PAKRI BARWADIH COAL MINE

(Amount in Rupees)

Sl No	Asset Class	As At 01.04.2022	Additions	Deduction/ Adjustment	Capitalised	As At 31.05.2023
	1	2	3	4	5	6
1	INTANGIBLE ASSETS UNDER DEVELOPMENT					
2	Software					
3	Right to use Others					
4	Exploration and Evaluation Expenditure - Coal Mine	593782573.16	(593782573.16)			
5	Exploratory wells in-progress					
6	Less: Provision for exploratory wells in-progress					
7	Total	593782573.16	(593782573.16)			
8	PREVIOUS YEAR TOTAL					

Note:- Additions during the year includes capital expenditure towards CSR (in Rs.) : 0.00

1136

Report Date : 22.04.2023 14:09:00 Version : 6 - Status Locked | Page : 1 1

PAKRI BARWADIH COAL MINE

NOTE NO. 6 TO THE FS-NCA-EQUITY INVESTMENTS IN SUBSIDIARIES AND JOINT VENTURES (Amount in ₹)

	As at	No. of shares	Face value	31.03.2023	31.03.2022
[illegible]	NON CURRENT INVESTMENTS- INVESTMENTS IN SUBSIDIARIES AND JOINT VENTURES			0.00	0.00
[illegible]	EQUITY INSTRUMENTS - UNQUOTED-FULLY PAID UP UNLESS OTHERWISE STATED, AT COST)			0.00	0.00
[illegible]	SUBSIDIARY COMPANIES			0.00	0.00
[illegible]	[illegible]			0.00	0.00
[illegible]	[illegible]			0.00	0.00
[illegible]	[illegible]

NOTE NO. 6 TO THE FS-NCA EQUITY INVESTMENTS IN SUBSIDIARIES AND JOINT VENTURES (Amount in ₹)

	As at	No. of shares	Face value	31.03.2023	31.03.2022
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	ARAVALI POWER COMPANY PRIVATE LTD.			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	NTPC-SAIL POWER PROJECTS PRIVATE LTD.			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]				[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]				[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]				[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	AGGREGATE AMOUNT OF IMPAIRMENT IN THE VALUE OF INVESTMENTS			[illegible]	[illegible]
[illegible]	TOTAL (NET OF IMPAIRMENT) OF JV			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]

NOTE NO. 6 TO THE FS-NCA-EQUITY INVESTMENTS IN SUBSIDIARIES AND JOINT VENTURES (Amount in ₹)

	As at	No. of shares	Face value	31.03.2025	31.03.2024
(a)				[illegible]	[illegible]
(aa)				[illegible]	[illegible]
(bb)				[illegible]	[illegible]
(cc)				[illegible]	[illegible]
(dd)				[illegible]	[illegible]
(ee)	Investment in associates as per Note 1			[illegible]	[illegible]
(ff)				[illegible]	[illegible]
(gg)				[illegible]	[illegible]
(hh)				[illegible]	[illegible]



NOTE NO. 7 TO THE FS-NCA-OTHER INVESTMENTS

(Amount in ₹)

	As at	No. of shares	Face value	31.03.2023	31.03.2022
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	Long term - Trade			[illegible]	[illegible]
[illegible]	Equity Instruments (fully paid up unless otherwise stated)			[illegible]	[illegible]
[illegible]	Quoted			[illegible]	[illegible]
[illegible]	JOINT VENTURE COMPANIES			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	INTERNATIONAL COAL VENTURES PRIVATE LTD			[illegible]	[illegible]
[illegible]	BF-NTPC BATTERY SYSTEMS LTD.			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	COOPERATIVE SOCIETIES			[illegible]	[illegible]
[illegible]				[illegible]	[illegible]
[illegible]	Sub TOTAL			[illegible]	[illegible]
[illegible]	AGGREGATE AMOUNT OF IMPAIRMENT IN THE VALUE OF INVESTMENTS			[illegible]	[illegible]
[illegible]	TOTAL			[illegible]	[illegible]
[illegible]				[illegible]	[illegible]
[illegible]	NTPC EMPLOYEES CONSUMERS AND THRIFT COOPERATIVE SOCIETY LTD. KORBA			[illegible]	[illegible]
[illegible]	NTPC EMPLOYEES CONSUMERS AND THRIFT COOPERATIVE SOCIETY LTD. [illegible]			[illegible]	[illegible]
[illegible]	NTPC EMPLOYEES CONSUMERS COOPERATIVE SOCIETY LTD. FARAKKA			[illegible]	[illegible]
[illegible]	[illegible] EMPLOYEES CONSUMERS COOPERATIVE SOCIETY LTD. [illegible]			[illegible]	[illegible]
[illegible]	NTPC EMPLOYEES CONSUMERS COOPERATIVE SOCIETY LTD. ANTA			[illegible]	[illegible]
[illegible]	NTPC EMPLOYEES CONSUMERS COOPERATIVE SOCIETY LTD. KAWAS			[illegible]	[illegible]
[illegible]	NTPC Employees Consumers Cooperative Society Ltd. Korba			[illegible]	[illegible]

PAKRI BARWADIH COAL MINE

NOTE NO. 5 TO THE FS-NCA-TRADE RECEIVABLES

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	Non-current financial assets - Trade receivables	0.00	0.00
002	UNSECURED, CONSIDERED GOOD	0.00	0.00
003	CREDIT IMPAIRED	0.00	0.00
004		0.00	0.00
005	Total	**0.00**	**0.00**

Locked: 23.04.2023 - 14:07:24

Run on: 23.04.2023 - 14:09:27 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 9 TO THE FS-NCA-LOANS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	**LOANS (NON CURRENT)**	**0.00**	**0.00**
004	RELATED PARTIES	0.00	0.00
005	SECURED	0.00	0.00
006	UN-SECURED	0.00	0.00
007	WITH SIGNIFICANT INCREASE IN CREDIT RISK	0.00	0.00
008	CREDIT IMPAIRED	0.00	0.00
009		0.00	0.00
010	EMPLOYEES(INCLUDING ACCRUED INTEREST)	0.00	0.00
011	SECURED	39,597,377.60	39,699,782.71
012	UNSECURED	14,040,026.53	21,685,229.73
013	WITH SIGNIFICANT INCREASE IN CREDIT RISK	0.00	0.00
014	CREDIT IMPAIRED	0.00	0.00
015	LESS : EMPLOYEE LOANS DISCOUNTING	0.00	0.00
016	SECURED	9,194,746.16	10,456,473.85
017	UNSECURED	2,214,888.32	3,987,535.97
018	LOAN TO STATE GOVERNMENT IN SETTLEMENT OF DUES FROM CUSTOMERS (UNSECURED)	0.00	0.00
019	OTHERS	0.00	0.00
020	SECURED	0.00	0.00
021	UNSECURED	0.00	0.00
022	WITH SIGNIFICANT INCREASE IN CREDIT RISK	0.00	0.00
023	CREDIT IMPAIRED	0.00	0.00
024	LESS: ALLOWANCE FOR CREDIT IMPAIRED LOANS	0.00	0.00
026	**SUB TOTAL**	**42,827,768.55**	**40,939,002.62**
027		0.00	0.00
028	**TOTAL**	**42,827,768.55**	**40,939,002.62**
029		0.00	0.00
030		0.00	0.00
031	**Due from Directors and Officers of the Company**	**0.00**	**0.00**
032	Directors	0.00	0.00
033	Officers	0.00	0.00
034		**0.00**	**0.00**
035	**Loans to related parties include:**	**0.00**	**0.00**
036	i)Key management personel	0.00	0.00
037	ii)Subsidiary companies	0.00	0.00
038	iii)Joint Venture compaties	0.00	0.00
039	iv)Others	0.00	0.00
040		**0.00**	**0.00**
055	Other loans represent loans given to	0.00	0.00
056	a) APBC	0.00	0.00
061		0.00	0.00
062	RPD	0.00	0.00
063	i)Key management personel	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 9 TO THE FS-NCA-LOANS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
064	a)Subsidiary companies	0.00	0.00
065	b)Joint Venture companies	0.00	0.00
066	c)Others	0.00	0.00
067	Total	0.00	0.00

Locked: 23.04.2023 - 14:07:25
Run on: 23.04.2023 - 14:09:29 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 19 TO THE FS-NCA-OTHER FINANCIAL ASSETS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	Other Financial Assets (non current)	0.00	0.00
002		0.00	0.00
003	Share application money pending allotment in (Subsidiary Companies) :	0.00	0.00
004	NTPC Electric Supply Company Ltd.	0.00	0.00
005	NTPC Vidyut Vyapar Nigam Ltd.	0.00	0.00
006	Nabinagar Power Generating Company Ltd.	0.00	0.00
007	Kanti Bijlee Utpadan Nigam Ltd.	0.00	0.00
008	Bharatiya Rail Bijlee Company Ltd.	0.00	0.00
009	Patratu Vidyut Utpadan Nigam Ltd.	0.00	0.00
010	NTPC Mining Limited	0.00	0.00
011	THDC Ltd.	0.00	0.00
012	NEEPCO Ltd	0.00	0.00
013		0.00	0.00
014	Total	0.00	0.00
015	Share application money pending allotment (Joint Venture)	0.00	0.00
016	Utility Powertech Ltd.	0.00	0.00
017	NTPC GE Power Services Pvt.Ltd.	0.00	0.00
018	NTPC-SAIL Power Company Ltd.	0.00	0.00
019	NTPC-Tamil Nadu Energy Company Ltd.	0.00	0.00
020	Ratnagiri Gas & Powe Private Ltd.	0.00	0.00
021	Aravali Power Company Private Ltd.	0.00	0.00
022		0.00	0.00
023	NTPC BHEL Power Projects Private Ltd.	0.00	0.00
024	Meja Urja Nigam Private Limited	0.00	0.00
025	BF-NTPC Energy Systems Ltd.	0.00	0.00
026	Anushakti Vidhyut Nigam Ltd.	0.00	0.00
027	Nabinagar Power Generating Company Ltd.	0.00	0.00
028	Energy Efficiency Services Ltd.	0.00	0.00
029	National High Power Test Laboratory Private Ltd.	0.00	0.00
030		0.00	0.00
031	CIL NTPC Urja Private Ltd.	0.00	0.00
032	Trincomalee Power Company Ltd.	0.00	0.00
033	Hindustan Urvarak & Rasayan Limited	0.00	0.00
034	Bangladesh-India Freendship Power Company Private Ltd.	0.00	0.00
035	Sub Total	0.00	0.00
036		0.00	0.00
037	Claims Recoverable	0.00	0.00
038	Finance Lease Recoverable	0.00	0.00
039	Mine Closure Deposit	336,490,750.23	143,950,340.99
040	Financial Deposit	0.00	0.00
041		0.00	0.00
042	Total	336,490,750.23	143,950,340.99

Locked: 23.04.2023 - 14:07:25
Run on: 23.04.2023 - 14:08:20 Version: 0

(Amount in ₹)

As at	31.03.2023	31.03.2022
(c)	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 11 TO THE FS-NCA-OTHER NON-CURRENT ASSETS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	Other Non-current Assets	0.00	0.00
002		0.00	0.00
003	CAPITAL ADVANCES	0.00	0.00
004	SECURED	0.00	0.00
005	Unsecured	0.00	0.00
006	COVERED BY BANK GUARANTEE	101,510,369.00	182,653,535.00
007	OTHERS	1,746,778,517.16	992,801,955.16
008	CONSIDERED DOUBTFUL	0.00	0.00
009	LESS: ALLOWANCE FOR BAD & DOUBTFUL ADVANCES	0.00	0.00
010	Sub-Total	1,848,288,886.16	1,175,455,490.16
011		0.00	0.00
012	Advances other than capital advances	0.00	0.00
013	SECURITY DEPOSITS	10,987,835.00	10,987,835.00
019	Advances to Related parties	0.00	0.00
022	Advances to Contractors & Suppliers	0.00	0.00
023	SECURED	0.00	0.00
024	UNSECURED	0.00	0.00
025	CONSIDERED DOUBTFUL	0.00	0.00
026	LESS: ALLOWANCE FOR BAD & DOUBTFUL ADVANCES	0.00	0.00
027	Sub Total	10,987,835.00	10,987,835.00
028	RECEIVABLE FROM MCP ESCROW A/C	336,468,160.74	144,286,069.86
029	Pre Post expenses	0.00	0.00
039	ADVANCE TAX & TAX DEDUCTED AT SOURCE	2,848,282.21	3,325,437.25
040	LESS:- PROVISION FOR CURRENT TAX	0.00	0.00
041		0.00	0.00
042	Sub Total	339,316,442.95	147,610,506.13
043	DEFERRED PAYROLL EXPENSES (SECURED)	6,473,632.74	8,067,682.20
044	DEFERRED PAYROLL EXPENSES (UNSECURED)	1,617,494.85	2,788,065.74
045	Sub Total	8,091,127.59	10,855,748.94
046	DEFERRED FOREIGN CURRENCY FLUCTUATION ASSET	0.00	0.00
049		0.00	0.00
050	Total	2,206,684,291.70	1,344,909,580.23
051		0.00	0.00
052		0.00	0.00
062	Advances include amount due from the following Private Companies in which Directors of the Company are also Directors in such Companies	0.00	0.00
064		0.00	0.00
065	NTPC GE Power Services Pvt Ltd.	0.00	0.00
066		0.00	0.00
067	Ratnagiri Gas & Power Private Ltd.	0.00	0.00
068	Aravali Power Company Private Ltd.	0.00	0.00
069	NTPC-SCCL Global Ventures Private Ltd.	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 11 TO THE FS-NCA-OTHER NON-CURRENT ASSETS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
070	NTPC BHEL Power Projects Private Ltd.	0.00	0.00
071	Mega Urja Nigam Private Limited	0.00	0.00
072	Nabinagar Power Generating Company Ltd.	0.00	0.00
073	National High Power Test Laboratory Private Ltd.	0.00	0.00
075	CIL NTPC Urja Private Ltd.	0.00	0.00
077		0.00	0.00
078	**Related Party (Adv)**	**0.00**	**0.00**
079	Key Managerient personel	0.00	0.00
080	Subsidiary companies	0.00	0.00
081	Joint Venture companies	0.00	0.00
082	Contractors	0.00	0.00
083	Others	0.00	0.00
085		0.00	0.00
086	Total	0.00	0.00



PAKRI BARWADIH COAL MINE

NOTE NO. 12 TO THE FS-CA-INVENTORIES

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	**INVENTORIES**	**0.00**	**0.00**
002		**0.00**	**0.00**
003	Coal	1,275,133,640.98	145,845,330.49
004	Fuel oil	0.00	0.00
005	Naphtha	0.00	0.00
006	Stores and spares	20,469,462.12	49,002,813.65
007	Chemicals & consumables	5,300,814.38	2,119,707.67
008	Loose tools	0.00	870,840.00
009	Steel Scrap	0.00	0.00
010	Others	203,670,656.83	76,727,660.55
011		0.00	0.00
012	**Sub Total**	**1,505,574,574.31**	**274,566,351.74**
013	Less: Provision for shortages	0.00	0.00
014	Less: Provision for obsolete/ unserviceable/diminution in value of surplus inventory	0.00	0.00
016		0.00	0.00
017	**Total**	**1,505,574,574.31**	**274,566,351.74**
018	**Inventories include material in transit**	**0.00**	**0.00**
019	Coal	0.00	0.00
020	Fuel oil	0.00	0.00
021	Naphtha	0.00	0.00
022	Stores and spares	0.00	0.00
023	Chemicals & consumables	0.00	0.00
024	Loose tools	0.00	0.00
025	Others	0.00	0.00
026		**0.00**	**0.00**
028	Inventory items other than steel scrap have been valued considering Note 1.	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 13 TO THE FS-CA-OTHER INVESTMENTS

(Amount in ₹)

	As at	No. of shares	Face value	31.03.2023	31.03.2022
001	CURRENT INVESTMENTS			0.00	0.00
002	(Valuation as per Note 1)			0.00	0.00
003	Jindal Power Limited 4.5% Non-convertible [illegible]			0.00	0.00
004	Investment in Mutual Funds (Details as under)			0.00	0.00
005	SBI Magnum Auto Cash Fund DDR			0.00	0.00
006	SBI Premier Liquid Fund Super IP DDR			0.00	0.00
007	SBI Dhf Ultra Short Term Fund IP DDR			0.00	0.00
008	UTI Money Market IP Direct Growth			0.00	0.00
009	ICICI Liquidation Direct Growth			0.00	0.00
010	Canara Robeco Liquid Fund Super IP DDR			0.00	0.00
011	Canara Robeco Treasury Advantage Fund Super IP DDR			0.00	0.00
012	ICICI Liquid Fund DDR			0.00	0.00
013	SBI Premier Liquid fund Direct DDR (Ash Fund)			0.00	0.00
014	UTI Liquid Cash Plan - IP - DDR (Ash Fund)			0.00	0.00
015	ICICI Liquid Fund - DDR - (Ash Fund)			0.00	0.00
016	Bonds Liquid Fund - Direct - Growth			0.00	0.00
017				0.00	0.00
018	Sub Total			0.00	0.00
019				0.00	0.00
020	Unquoted Investments			0.00	0.00
021				0.00	0.00
022	TOTAL			0.00	0.00
023				0.00	0.00

PARAS BARWADIH COAL MINE

NOTE NO. 14 TO THE FS-CA-TRADE RECEIVABLES

(Amount in ₹.)

	As at	31.03.2023	31.03.2022
001	**TRADE RECEIVABLES (current)'**	**0.00**	**0.00**
002		0.00	0.00
003	Secured,Considered Good	0.00	0.00
004	Unsecured , considered good	0.00	0.00
005	Credit impaired	0.00	0.00
006	Unbilled Revenue	0.00	0.00
007	**Sub-Total**	**0.00**	**0.00**
008	**Total**	**0.00**	**0.00**
009	Less: Allowance for credit impaired receivables	0.00	0.00
010	**Total**	**0.00**	**0.00**
012	Less: Discom Clearing	0.00	0.00
014		0.00	0.00
015	**Grand Total**	**0.00**	**0.00**
016	Other Unsecured	0.00	0.00
017	Long term trade receivables	0.00	0.00
018	TCS Clearing	0.00	0.00
019	Discom Clearing	0.00	0.00
200	**Trade Receivable**	**0.00**	**0.00**
230	Not due	0.00	0.00
231	Due	0.00	0.00
232	(i) Undisputed Trade receivables # considered good	0.00	0.00
233	(ii) Undisputed Trade Receivables # which have significant increase in credit risk	0.00	0.00
234	(iii) Undisputed Trade Receivables # credit impaired	0.00	0.00
235	(iv) Disputed Trade Receivables#considered good	0.00	0.00
236	(v) Disputed Trade Receivables # which have significant increase in credit risk	0.00	0.00
237	(vi) Disputed Trade Receivables # credit impaired	0.00	0.00
238	Unbilled	0.00	0.00
239	**Total**	**0.00**	**0.00**
240		0.00	0.00
241	**(i) Undisputed Trade receivables # considered good**	**0.00**	**0.00**
242	Less than 6 months	0.00	0.00
243	6 months -1 year	0.00	0.00
244	1-2 years	0.00	0.00
245	2-3 years	0.00	0.00
246	More than 3 years	0.00	0.00
247	**Sub Total (i)**	**0.00**	**0.00**
248	**(ii) Undisputed Trade Receivables # which have significant increase in credit risk**	**0.00**	**0.00**
249	Less than 6 months	0.00	0.00
250	6 months -1 year	0.00	0.00
251	1-2 years	0.00	0.00
252	2-3 years	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 14 TO THE FS-CA-TRADE RECEIVABLES

(Amount in ₹)

	As at	31.03.2023	31.03.2022
253	More than 3 years	0.00	0.00
254	**Sub Total (II)**	**0.00**	**0.00**
255	**(iii) Undisputed Trade Receivables -credit impaired**	**0.00**	**0.00**
256	Less than 6 months	0.00	0.00
257	6 months -1 year	0.00	0.00
258	1-2 years	0.00	0.00
259	2-3 years	0.00	0.00
260	More than 3 years	0.00	0.00
261	**Sub Total (III)**	**0.00**	**0.00**
262		0.00	0.00
263	**(iv) Disputed Trade Receivables#considered good**	**0.00**	**0.00**
264	Less than 6 months	0.00	0.00
265	6 months -1 year	0.00	0.00
266	1-2 years	0.00	0.00
267	2-3 years	0.00	0.00
268	More than 3 years	0.00	0.00
269	**Sub Total (IV)**	**0.00**	**0.00**
270	**(v) Disputed Trade Receivables # which have significant increase in credit risk**	**0.00**	**0.00**
271	Less than 6 months	0.00	0.00
272	6 months -1 year	0.00	0.00
273	1-2 years	0.00	0.00
274	2-3 years	0.00	0.00
275	More than 3 years	0.00	0.00
276	**Sub Total (V)**	**0.00**	**0.00**
277	**(vi) Disputed Trade Receivables # credit impaired**	**0.00**	**0.00**
278	Less than 6 months	0.00	0.00
279	6 months -1 year	0.00	0.00
280	1-2 years	0.00	0.00
281	2-3 years	0.00	0.00
282	More than 3 years	0.00	0.00
283	**Sub Total (VI)**	**0.00**	**0.00**
284	**Total**	**0.00**	**0.00**

पवन देव जाणता/PAWAN DEV JAMTA

EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 15 TO THE FS-CA-CASH AND CASH EQUIVALENTS

{ Amount in ₹ }

	As at	31.03.2023	31.03.2022
001	**CASH & BANK BALANCES**	**0.00**	**0.00**
002	**Cash & Cash Equivalents**	**0.00**	**0.00**
003	Balances with Banks	7,310,969.24	56,611,852.04
004	Cheques & Drafts on hand	0.00	0.00
005	Cash on hand	0.00	0.00
006	Others (stamps in hand)	0.00	0.00
007	Bank deposits with original maturity upto three months	0.00	0.00
008	Balances with RBI	0.00	0.00
009		0.00	0.00
011	Total	**7,310,969.24**	**56,611,852.04**



Locked: 23.04.2023 - 14:07:25

Run on: 23.04.2023 - 14:08:28 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 16 TO THE FS-CA-BANK BALANCES OTHER THAN CASH AND CASH EQUIVALENTS (Amount in ₹)

	As at	31.03.2023	31.03.2022
001	**Other Bank Balances**	**0.00**	**0.00**
002	Deposits with original maturity of more than three months but not more than twelve months	0.00	0.00
003	Earmarked balances with banks*	0.00	0.00
004	**SubTotal**	**0.00**	**0.00**
005	Interest accrued on deposits	0.00	0.00
006		0.00	0.00
008	**Total**	**0.00**	**0.00**
009		0.00	0.00
010	**Earmarked balances with banks consist of :**	**0.00**	**0.00**
011	Unpaid dividend account balance	0.00	0.00
012	Towards public deposit repayment reserve	0.00	0.00
013	Towards redemption of bonds due for repayment within one year	0.00	0.00
014	Security with Government/other authorities	0.00	0.00
015	Unpaid refund/interest account balance - Tax free bonds/ Bonus Debentures	0.00	0.00
016	Earmarked for RGGVY/DDUGJY/SAUBHAGYA Fund	0.00	0.00
017	Earmarked for Flyash Utilisation Reserve Fund	0.00	0.00
018	Deposits with original maturity upto three months as per court orders	0.00	0.00
019	Payment Security Scheme of MNRE NSM (NTPC)	0.00	0.00
020	Payment Security Scheme of MNRE NSM (NVVN)	0.00	0.00
021	Enforcement Directorate of Solar Plant(NVVN)	0.00	0.00
022	Bank guarantee Fund of MNRE (NVVN)	0.00	0.00
023	Others	0.00	0.00
024	Margin Money	0.00	0.00
025		0.00	0.00
026		0.00	0.00
027	**Sub-total**	**0.00**	**0.00**
031	**Total**	**0.00**	**0.00**
032		0.00	0.00
033	Bank deposits with original maturity of less than three months- other than earmarked	0.00	0.00
034	Bank deposits with original maturity of more than three months but not more than twelve months- other than earmarked	0.00	0.00
035	Earmarked bank balances (current account)	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 17 TO THE FS-CA-LOANS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	**Current financial assets - Loans**	**0.00**	**0.00**
002	**Loans (current)-including interest accrued**	**0.00**	**0.00**
004	**Related Parties**	**0.00**	**0.00**
005	Secured	0.00	0.00
006	Un-Secured	0.00	0.00
007	With significant increase in Credit Risk	0.00	0.00
008	Credit impaired	0.00	0.00
009		**0.00**	**0.00**
010	**Employees**	**0.00**	**0.00**
011	Secured	8,005,425.79	5,290,203.69
012	Unsecured	15,094,025.55	17,875,388.72
013	With significant increase in Credit Risk	0.00	0.00
014	Credit impaired	0.00	0.00
015	Less : Employee Loans Discounting	0.00	0.00
016	**Loan to State Government in settlement of dues from customers (Unsecured)**	**0.00**	**0.00**
017		0.00	0.00
018	**Others**	**0.00**	**0.00**
019	Secured	0.00	0.00
020	Unsecured	0.00	0.00
021	With significant increase in Credit Risk	0.00	0.00
022	Credit impaired	0.00	0.00
023		**0.00**	**0.00**
024	Less: Allowance for credit impaired loans	0.00	0.00
026		0.00	0.00
027	**Total (Loans)**	**23,789,451.34**	**23,165,592.41**
028		**0.00**	**0.00**
029	**Due from Directors and Officers of the Company**	**0.00**	**0.00**
030	Directors	0.00	0.00
031	Officers	0.00	0.00
032		**0.00**	**0.00**
033	**Loans to related parties include:**	**0.00**	**0.00**
034	i)Key management personel	0.00	0.00
035	ii)Subsidiary companies	0.00	0.00
036	KBUNL	0.00	0.00
037	RGPPL	0.00	0.00
038	NVVN	0.00	0.00
039	iii)Joint Venture companies	0.00	0.00
040	iv)others	0.00	0.00
041		0.00	0.00
060	RPD	0.00	0.00
061	i)Key management personel	0.00	0.00
062	ii)Subsidiary companies	0.00	0.00
063	iii)Joint Venture companies	0.00	0.00
064	iv)Others	0.00	0.00
065		0.00	0.00

Locked: 23.04.2023 – 14:07:25

Rpt on: 23.04.2023 - 14:08:31 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 17 TO THE FS-CA-LOANS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
(a)	Total	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 18 TO THE FS-CA-OTHER FINANCIAL ASSETS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	**Other Financial Assets (current)**	**0.00**	**0.00**
002		0.00	0.00
003	**ADVANCES**	**0.00**	**0.00**
004		**0.00**	**0.00**
005	**Related Parties**	**0.00**	**0.00**
006	Secured	0.00	0.00
007	Un-Secured	-387,603.48	-110,116.42
008	Considered doubtful	0.00	0.00
009		**0.00**	**0.00**
010	**Employees**	**0.00**	**0.00**
012	Unsecured	1,984,966.00	821,388.00
013	Considered Doubtful	0.00	0.00
014		**0.00**	**0.00**
020	**Others**	**0.00**	**0.00**
021	Secured	0.00	0.00
022	Unsecured	0.00	0.00
023	Considered Doubtful	0.00	0.00
024		**0.00**	**0.00**
025	Less: Allowance for bad & doubtful advances	0.00	0.00
026		**0.00**	**0.00**
033	**Total (Advances)**	**1,597,362.52**	**711,272.58**
044		**0.00**	**0.00**
045	**Claims Recoverable**	**0.00**	**0.00**
046	Secured	0.00	0.00
047	Unsecured, considered good	0.00	0.00
048	Considered Doubtful	0.00	0.00
049	Less:- Allowance for doubtful claims	0.00	0.00
050	Others-Claims Recoverable	0.00	0.00
051		**0.00**	**0.00**
052	Contract Asset- Revenue	0.00	20,360,207.74
053	Hedging cost receivable from beneficiaries	0.00	0.00
054	Derivative MTM Asset	0.00	0.00
055	Finance Lease Receivable	0.00	0.00
056	Mine Closure Deposit	185,516,277.54	287,773,020.13
057	Financial Deposit	0.00	0.00
058	**Other Accrued Income**	**0.00**	**0.00**
060	Secured,Considered Good	0.00	0.00
061	Unsecured , considered good	117,999.90	16,813.00
062	Credit impaired	0.00	0.00
063		0.00	0.00
064	**Sub-Total**	**117,999.90**	**16,813.00**
065	Less: Allowance for credit impaired receivables	0.00	0.00
066	**Total**	**117,999.90**	**16,813.00**
067		0.00	0.00
068	Others*	0.00	0.00
070		0.00	0.00

Locked: 23.04.2023 - 14:07:25

Run on: 23.04.2023 - 14:08:32 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 18 TO THE FS-CA-OTHER FINANCIAL ASSETS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
071	Total	187,233,639.96	308,861,343.45
072	* Other include amount recoverable from contractors and other parties towards hire charges, rent/electricity etc.	0.00	0.00
073	**Advances to related parties include:**	**0.00**	**0.00**
074	i)Key management personal	0.00	0.00
075		0.00	0.00
076	ii)Joint Venture companies	0.00	0.00
077		0.00	0.00
078	v)Others	0.00	0.00
079		0.00	0.00
080	Advances include amount due from the following Private Companies in which Directors of the Company are also Directors in such Companies	0.00	0.00
081	Related Party (Adv)- Employee	0.00	0.00
082	Related Party (Adv)- Subsidiaries	-387,603.48	-110,116.42
083	Related Party (Adv)- Joint Ventures	0.00	0.00
084		0.00	0.00
085	Related Party (Adv)- Others	0.00	0.00
086		0.00	0.00
099		0.00	0.00
100		0.00	0.00
101	Total	-387,603.48	-110,116.42

पवन देव उत्तराधिकारी/PAWAN DEV JAMTA
EGC, A-64, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 19 TO THE FS-CA-OTHER CURRENT ASSETS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	**OTHER CURRENT ASSETS**	**0.00**	**0.00**
002	Security Deposits (Unsecured)	0.00	0.00
003	Deposit with Customs, port trust & others*	2,515,302,302.00	2,545,012,234.00
004	**ADVANCES**	**0.00**	**0.00**
005		**0.00**	**0.00**
006	**Related Parties**	**0.00**	**0.00**
007	Secured	0.00	0.00
008	Un-Secured	0.00	0.00
009	Considered doubtful	0.00	0.00
010		**0.00**	**0.00**
011	**Employees(including impreat)**	**0.00**	**0.00**
012	Secured	0.00	0.00
013	Unsecured	269,190.00	40,000.00
014	Considered Doubtful	0.00	0.00
015		**0.00**	**0.00**
016	**Contractors & Suppliers**	**0.00**	**0.00**
017	Secured	0.00	0.00
018	Unsecured	431,266,794.00	22,779,490.00
019	Considered Doubtful	0.00	0.00
020		0.00	0.00
021	**Others****	**0.00**	**0.00**
022	Secured	0.00	0.00
023	Unsecured	18,490,903.00	1,322,260.00
024	Considered Doubtful	0.00	0.00
025	Less: Allowance for bad & doubtful advances	0.00	0.00
026	Receivable from MCP Escrow A/c	185,540,867.03	287,438,291.50
027	Deferred Payroll Expenses (Secured)	662,549.73	775,461.72
028	Deferred Payroll Expenses (Unsecured)	1,084,908.72	1,174,959.36
029	**Sub-total**	**1,747,458.45**	**1,950,421.08**
030	**Interest accrued on :**	**0.00**	**0.00**
031	Advances to contractors	0.00	0.00
032		**0.00**	**0.00**
033	**Claims Recoverable**	**0.00**	**0.00**
034	Secured	0.00	0.00
035	Unsecured, considered good	0.00	13,306,759.00
036	Considered Doubtful	0.00	0.00
037	Less:- Allowance for doubtful	0.00	0.00
038		**0.00**	**0.00**
039	Deferred premium on forward exchange contract/ Option Assets	0.00	0.00
041		0.00	0.00
042	Others	0.00	883,240.00
043		0.00	0.00
045	**Total (Other Current Assets)**	**3,152,617,514.48**	**2,872,732,695.58**
046	**Include Prepaid Expenses	18,334,700.00	0.00
047	*Includes sales tax/Entry tax/VAT deposited under protest with Sales Tax Authorities	0.00	0.00

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 13 TO THE FS-CA-OTHER CURRENT ASSETS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
048	*Includes deposited with courts	2,515,302,302.00	2,515,302,302.00
049	*Includes deposited with LIC for annuity payments	0.00	0.00
050	* Includes deposits with WRD / against BG in c/o finance lease	0.00	0.00
051	Other include amount recoverable from contractors and other parties towards hire charges, rent/electricity etc.	0.00	0.00
053	**Advances to related parties include:**	**0.00**	**0.00**
054	i)Key management personnel	0.00	0.00
055	ii)Subsidiary companies	0.00	0.00
056	iii)Joint Venture companies	0.00	0.00
057	Contractors	0.00	0.00
058	Others	0.00	0.00
059		0.00	0.00
060	Advances include amount due from the following Private Companies in which Directors of the Company are also Directors in such Companies	0.00	0.00
061		**0.00**	**0.00**
062		0.00	0.00
063	Related Party (Adv)- Employee	0.00	0.00
064	Related Party (Adv)- Subsidiaries	0.00	0.00
065	Related Party (Adv)- Joint Venture	0.00	0.00
066		0.00	0.00
067		0.00	0.00
068	**Total**	**0.00**	**0.00**
069		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 20 TO THE FS--REGULATORY DEFERRAL ACCOUNT DEBIT BALANCES (Amount in ₹)

	As at	31.03.2023	31.03.2022
001	On account of Exchange Differences	0.00	0.00
002	On account of employee benefit exp	0.00	0.00
003	Regulatory deferred account - deferred	0.00	0.00
004	Deferred asset for ash transportation	0.00	0.00
005	Deferred asset for Arbitration Award	0.00	0.00
006		0.00	0.00
000	**Total**	**0.00**	**0.00**

Locked: 23.04.2023 - 14:07:25
Run on: 23.04.2023 - 14:08:35 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 21 TO THE FS-EQUITY-EQUITY SHARE CAPITAL

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	**SHARE CAPITAL**	**0.00**	**0.00**
002	**Equity Share Capital**	**0.00**	**0.00**
003	**Authorised**	**0.00**	**0.00**
004	16,60,00,00,000 equity shares of Rs.10/- each (Previous year 10,000,000,000 equity shares of Rs.10/- each)	0.00	0.00
005	**Issued,Subscribed and fully Paid-up**	**0.00**	**0.00**
006	9,69,68,66,134 equity shares of Rs.10/- (Pv. Year 9,696,557,290 equity shares of Rs.10/- each)	0.00	0.00
007		**0.00**	**0.00**
008	**Total**	**0.00**	**0.00**
009	During FY 2018-19, the company has issued 1,040,002,880 equity shares of Rs.10/- each as fully paid bonus shares	0.00	0.00
010	The holders of the equity shares are entitled to receive dividends as declared from time to time, and are entitled to one vote per share at meetings of the company.	0.00	0.00
011	Details of shareholders holding more than 5% shares in the company	0.00	0.00
012	- President of India	0.00	0.00
013	No. of Shares	0.00	0.00
014	% of holding	0.00	0.00
015	- Life Insurance Corporation of India/ICICI Prudential Mutual Fund	0.00	0.00
016	No. of Shares	0.00	0.00
017	% of holding	0.00	0.00

PAWAN DEV JAMTA

Locked 23.04.2023 - 14:07:24

Run on: 23.04.2023 - 14:08:36 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 22 TO THE FS-EQUITY-OTHER EQUITY

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	RESERVE AND SURPLUS	0.00	0.00
002		**0.00**	**0.00**
003	**Capital Reserve**	**0.00**	**0.00**
004	As per last financial statements	0.00	0.00
005	Add : Grants received during the year	0.00	0.00
007	Add: Transfer from Surplus	0.00	0.00
008	Less: Write back during the year/period	0.00	0.00
009	Less: Adjustments during the year/period	0.00	0.00
010	**SUB-TOTAL**	**0.00**	**0.00**
011		0.00	0.00
012		0.00	0.00
016	**SECURITIES PREMIUM ACCOUNT**	**0.00**	**0.00**
019	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
020	ADD: ADDITIONS DURING THE YEAR/PERIOD	0.00	0.00
021	LESS: ADJUSTMENTS DURING THE YEAR/PERIOD	0.00	0.00
022	SUB-TOTAL	**0.00**	**0.00**
023	**BONDS REDEMPTION RESERVE**	**0.00**	**0.00**
024	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
025	ADD: TRANSFER FROM SURPLUS	0.00	0.00
026	LESS: TRANSFER TO SURPLUS ON REDEMPTION	0.00	0.00
027	LESS: ADJUSTMENTS DURING THE YEAR/ PERIOD	0.00	0.00
028	SUB-TOTAL	**0.00**	**0.00**
029	**CAPITAL REDEMPTION RESERVE**	**0.00**	**0.00**
030	As per last financial statements	0.00	0.00
031	Add: Transfer from Surplus	0.00	0.00
032	Less: Transfer to surplus on redemption	0.00	0.00
033	Less: Adjustments during the year/ period	0.00	0.00
034	Sub-Total	**0.00**	**0.00**
035	**Share Application money pending Allotment**	**0.00**	**0.00**
036	As per last financial statements	0.00	0.00
037	Add: Addition during the year	0.00	0.00
038	Less: Utilised for allotment during the year	0.00	0.00
039	Less: Adjustments during the year/ period	0.00	0.00
040	SUB-TOTAL	**0.00**	**0.00**
046	**FLY-ASH UTILISATION RESERVE FUND**	**0.00**	**0.00**
047	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
048	TRANSFERRED TO CC	0.00	0.00
049	ADD:TRANSFER FROM REVENUE FROM OPERATIONS	0.00	0.00
050	ADD:TRANSFER FROM OTHER INCOME	0.00	0.00
051	LESS: UTILISED DURING THE YEAR	0.00	0.00
052	TANGIBLE ASSETS	0.00	0.00
053	EMPLOYEE BENEFIT EXPENSES	0.00	0.00
054	GENERATION ADMN. AND OTHER EXPENSES	0.00	0.00

Locked: 23.04.2023 - 14:07:24
Run on: 23.04.2023 - 14:08:37 Version: 0

1162

Page 1 of 3

PAKRI BARWADIH COAL MINE

NOTE NO. 22 TO THE FS-EQUITY-OTHER EQUITY

(Amount in ₹)

	As at	31.03.2023	31.03.2022
055	TAX EXPENSES	0.00	0.00
056	**SUB-TOTAL**	**0.00**	**0.00**
057	Self Insurance Reserve	0.00	0.00
058	As per last financial statements	0.00	0.00
059	Add: Addition during the year	0.00	0.00
060	Less: Utilised for allotment during the year	0.00	0.00
061	Less: Adjustments during the year/ period	0.00	0.00
062	SUB-TOTAL	0.00	0.00
063	**SPECIAL ALLOWANCE RESERVE FUND**	**0.00**	**0.00**
064	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
065	ADD: ADDITION DURING THE YEAR	0.00	0.00
066	LESS: UTILISED FOR ALLOTMENT DURING THE YEAR	0.00	0.00
067	LESS: ADJUSTMENTS DURING THE YEAR/ PERIOD	0.00	0.00
068	**SUB-TOTAL**	**0.00**	**0.00**
069	**CORPORATE SOCIAL RESPONSIBILITY (CSR) RESERVE**	**0.00**	**0.00**
070	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
071	ADD : TRANSFER FROM SURPLUS	0.00	0.00
072	LESS: WRITE BACK DURING THE YEAR	0.00	0.00
073	**SUB-TOTAL**	**0.00**	**0.00**
074	**GENERAL RESERVE**	**0.00**	**0.00**
075	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
076	ADD: TRANSFER FROM SURPLUS	0.00	0.00
077	LESS: TRANSFER TO SURPLUS	0.00	0.00
078	LESS: WRITE BACK DURING THE YEAR /PERIOD	0.00	0.00
079	LESS: ADJUSTMENTS DURING THE YEAR /PERIOD	0.00	0.00
080	**SUB-TOTAL**	**0.00**	**0.00**
081		**0.00**	**0.00**
082	**RETAINED EARNINGS**	**0.00**	**0.00**
083	AS PER LAST FINANCIAL STATEMENTS	1,207,756,946.79	457,414,276.60
084	ADD(LESS): CHANGES IN ACCOUNTING POLICY / PRIOR PERIOD ERRORS	0.00	0.00
085	ADD(LESS): PROFIT (LOSS) AFTER TAX FOR THE YEAR FROM STATEMENT OF PROFIT & LOSS	3,837,985,483.79	750,342,272.19
087	ADD: WRITE BACK FROM BOND REDEMPTION RESERVE	0.00	0.00
088	ADD: WRITE BACK FROM CAPITAL RESERVE	0.00	0.00
089	ADD: WRITE BACK FROM FOREIGN PROJECT RESERVE	0.00	0.00
090	ADD: WRITE BACK FROM CSR RESERVE	0.00	0.00
091	ADD: WRITE BACK FROM GENERAL RESERVE	0.00	0.00
093	LESS: TRANSFER TO BONDS REDEMPTION RESERVE	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 22 TO THE FS-EQUITY-OTHER EQUITY

(Amount in ₹)

	As at	31.03.2023	31.03.2022
004	LESS: TRANSFER TO SPECIAL ALLOWANCE RESERVE FUND	0.00	0.00
005	LESS: TRANSFER TO FOREIGN PROJECT RESERVE	0.00	0.00
006	LESS:TRANSFER TO CAPITAL RESERVE	0.00	0.00
007	LESS:TRANSFER TO CSR RESERVE	0.00	0.00
008	LESS:TRANSFER TO GENERAL RESERVE	0.00	0.00
009	LESS:INTERIM DIVIDEND PAID	0.00	0.00
100	LESS:TAX ON INTERIM DIVIDEND PAID	0.00	0.00
101	LESS:FINAL DIVIDEND PAID	0.00	0.00
102	LESS:TAX ON FINAL DIVIDEND PAID	0.00	0.00
103	LESS: ISSUE OF BONUS DEBENTURE	0.00	0.00
104	LESS: TAX ON ISSUE OF BONUS DEBENTURE	0.00	0.00
105	**SUB-TOTAL**	5,045,422,012.58	1,207,758,548.79
110		0.00	0.00
111	**REMEASUREMENT OF DEFINED BENEFIT PLANS**	**0.00**	**0.00**
112	AS PER LAST FINANCIAL STATEMENTS	-14,604,767.21	-12,713,256.53
113	ADD/(LESS):- ACTUARIAL GAINS/LOSS THROUGH OCI	-2,916,944.93	-1,891,510.68
114	**SUB-TOTAL**	**-17,521,712.14**	**-14,604,767.21**
115		0.00	0.00
116	**FVTOCI Reserve**	**0.00**	**0.00**
117	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
118	ADD/(LESS):-NET GAIN/LOSS OF EQUITY INSTRUMENTS THROUGH OCI	0.00	0.00
119	**Sub-Total**	**0.00**	**0.00**
120		**0.00**	**0.00**
121	**Total Other equity**	**5,027,900,300.44**	**1,193,151,781.58**
122		0.00	0.00
123		0.00	0.00
124		0.00	0.00
125		0.00	0.00
126		0.00	0.00
127		0.00	0.00
128		0.00	0.00

(Amount in ?)

As at	31.03.2023	31.03.2022

PAKRI BARWADIH COAL MINE

NOTE NO. 23 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	LONG TERM BORROWINGS	0.00	0.00
002	Bonds	0.00	0.00
003	Secured	0.00	0.00
004	7.37 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2035 (Fifty Sixth Issue - Public Issue - Series 3A).	0.00	0.00
005	7.62 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2035 (Fifty Sixth Issue - Public Issue - Series 3 B).	0.00	0.00
006	8.61% Tax free secured non-cumulative non-convertible redeemable bonds of ₹ 10,00,000/- each redeemable at par in full on 4th March 2034 (Fifty First Issue C - Private Placement)	0.00	0.00
007	8.66% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2033 (Fiftieth Issue - Public Issue - Series 3A)	0.00	0.00
008	8.91% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2033 (Fiftieth Issue - Public Issue - Series 3B)	0.00	0.00
009	7.37% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 14th December 2031 (Sixty Sixth Issue - Private Placement)	0.00	0.00
010	7.49% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 7th November 2031 (Sixty Fourth Issue - Private Placement)	0.00	0.00
011	7.28 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2030 (Fifty Sixth Issue - Public Issue - Series	0.00	0.00

Locked: 25.04.2023 - 14:07:24

Run on: 25.04.2023 - 14:08:39 Version: 0

(Amount in ₹)

	As at	31.03.2023	31.03.2022
	2A)		
012	7.53 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2030 (Fifty Sixth Issue - Public Issue - Series 2 B).	0.00	0.00
013	7.32% Secured non-cumulative non-convertible redeemable taxable bonds of Rs 10,00,000/- each redeemable at par in full on 17 July 2029 (Sixty Ninth Issue - Private Placement)	0.00	0.00
014	8.63% Tax free secured non-cumulative non-convertible redeemable bonds of ₹ 10,00,000/- each redeemable at par in full on 4th March 2029 (Fifty First Issue B - Private Placement)	0.00	0.00
015	8.30% Secured non-cumulative non-convertible redeemable taxable bonds of Rs 10,00,000/- each redeemable at par in full on 15 January 2029 (Sixty Seventh Issue - Private Placement)	0.00	0.00
016	8.48% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2028 (Fiftieth Issue - Public Issue - Series 2A)	0.00	0.00
017	8.73% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2028 (Fiftieth Issue - Public Issue - Series 2B)	0.00	0.00
018	7.47% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 16th September 2026 (Sixty Third Issue - Private Placement)	0.00	0.00
019	7.58% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in	0.00	0.00

पवन देव जागरा/PAWAN DEV JAMTA
वरिष्ठ महाप्रबंधक (सीएमएस)
Dep. Gen. Manager (CMS)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

	As at	31.03.2023	31.03.2022
	full on 23rd August 2026 (Sixty Second Issue - Private Placement)		
020	8.05% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 5th May 2026 (Sixtieth Issue - Private Placement)	0.00	0.00
021	8.19% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 15th December 2025 (Fifty Seventh Issue - Private Placement)	0.00	0.00
022	7.11 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2025 (Fifty Sixth Issue - Public Issue - Series (A).	0.00	0.00
023	7.36 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2025 (Fifty Sixth Issue - Public Issue - Series I B).	0.00	0.00
024	7.15% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of Rs. 10,00,000/- each redeemable at par in full on 21st August 2025 (Fifty Fifth Issue - Private Placement)	0.00	0.00
025	9.17% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 22nd September 2024 (53rd Issue - private placement).	0.00	0.00
026	9.34% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 24th March 2024 (Fifty Second Issue - private placement)	0.00	0.00
027	8.19% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 10,00,000/- each redeemable at		0.00

(Amount In ₹)

	As at	31.03.2023	31.03.2022
	par in full on 4th March 2024 (Fifty First Issue A - Private Placement)		
028	8.41% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2023 (Fiftieth Issue - Public Issue - Series 1A)	0.00	0.00
029	8.66% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2023 (Fiftieth issue - Public Issue - Series 1B)	0.00	0.00
030	9.25% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each with five equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 11th year and in annual installments thereafter upto the end of 15th year respectively commencing from 4th May 2023 and ending on 4th May 2027 (Forty fourth issue - private placement)VII	0.00	0.00
031	8.48% Secured non-cumulative non-nonvertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 1st May 2023 (Seventeenth issue - private placement)I	0.00	0.00
032	8.80% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4th April 2023 (Forty ninth issue -private placement	0.00	0.00
033	8.49% Secured non-cumulative non-convertible redeemable taxable fully paid-up bonus debentures of Rs. 12.50 each redeemable at par in three annual installments of Rs. 2.50, Rs. 5.00 and Rs. 5.00 at the end of 8th year, 9th year and 10th year on 25th March 2023, 25th March 2024 and 25th March 2025 respectively (Fifty Fourth Issue -Bonus Debentures)X (refer Note 5 d)	0.00	0.00
034	8.73% Secured non-cumulative	0.00	0.00

पवन देव जमाता/PAWAN DEV JAMTA
Dy. [illegible]
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

NOTE NO. 23 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
	non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 07th March 2023] Forty eighth issue - private placement)		
035	9.00% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each with five equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 11th year and in annual installments thereafter upto the end of 15th year respectively commencing from 25th January 2023 and ending on 25th January 2027 (Forty second issue- private placement)III	0.00	0.00
030	8.84% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4th October 2022 (Forty seventh issue- private placement)VII	0.00	0.00
027	7.93% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 03 May 2022 (66th Issue - Private Placement)	0.00	0.00
028	6.72% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 24th November 2021 (Sixty Fifth Issue - Private Placement)	0.00	0.00
029	8.10% Secured Non-Cumulative Non-Convertible Redeemable Taxable Bonds of Rs. 30,00,000/- each redeemable at par in three equal separately transferable redeemable principal parts (STRPP) at the end of 5th year, 10th year & 15th year on 27th May 2021, 27th May 2026 and 27th May 2031 respectively (Sixty First Issue- Private Placement)	0.00	0.00
040	8.33% Secured non-cumulative non-convertible redeemable taxable bonds of Rs.10,00,000/- each redeemable at par in full on 24th February 2021	0.00	0.00

	As at	31.03.2023	31.03.2022
	(Fifty Ninth Issue - Private Placement).		
042	8.03% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 19th January 2021 (Thirty seventh issue - private placement)(II	0.00	0.00
043	8.18% Secured non-cumulative non-convertible redeemable taxable bonds of Rs.10,00,000/- each redeemable at par in full on 31st December 2020 (Fifty Eight Issue - Private Placement).	0.00	0.00
044	8.73 % Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 31st March 2020 (Thirty third issue- private placement)(II	0.00	0.00
045	8.78 % Secured non-cumulative non-convertible redeemable taxable bonds at ₹ 10,00,000/- each redeemable at par in full on 9th March 2020 (Thirty first issue- private placement)(II	0.00	0.00
046	11.75% Secured non-cumulative non-convertible redeemable taxable bonds at ₹ 10,00,000/- each redeemable at par in five equal annual installments commencing from 6th Nov 2019 and ending on 6th Nov 2023 (Twenty seventh issue - private placement)(II	0.00	0.00
047	7.89% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 5th May 2019 (Thirtieth issue - private placement)(II	0.00	0.00
048	8.65% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4th February 2019 (Twenty ninth issue - private placement)(II	0.00	0.00
049	7.50% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full	0.00	0.00

	As at	31.03.2023	31.03.2022
	on 12th January 2019 (Nineteenth issue - private placement)II		
050	11% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 21st November 2018 (Twenty eighth issue - private placement)III	0.00	0.00
051	9.3473% Secured non-cumulative non-convertible redeemable taxable bonds of ₹15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 20th July 2018 and ending on 20th July 2032 (Forty sixth issue - private placement)VII	0.00	0.00
052	9.4376% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 16th May 2018 and ending on 16th May 2032 (Forty fifth issue - private placement)VII	0.00	0.00
053	8.00% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 10th April 2018 (Sixteenth issue -private placement)II	0.00	0.00
054	9.2573% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 2nd March 2018 and ending on 2nd March 2032 (Forty third issue - private placement)III	0.00	0.00
055	9.6713% Secured non-cumulative non-convertible redeemable taxable bonds	0.00	0.00

(Amount in ₹)

	As at	31.03.2023	31.03.2022
	of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 23rd December 2017 and ending on 23rd December 2031 (Forty first issue – private placement)III		
056	8.558% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 29th July 2017 and ending on 29th July 2031(Fourtieth issue-private placement)III	0.00	0.00
057	8.3896% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 9th June 2017 and ending on 9th June 2031(Thirty ninth issue-private placement)III	0.00	0.00
058	8.17% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 22nd March 2017 and ending on 22nd March 2031(Thirty eighth issue-private placement)III	0.00	0.00
059	8.8086% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th	0.00	0.00

NOTE NO. 23 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
	year and in annual installments thereafter upto the end of 20th year respectively commencing from 15th December 2016 and ending on 15th December 2030 (Thirty sixth issue - private placement)III		
060	8.785% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 15th September 2016 and ending on 15th September 2030 (Thirty fifth issue - private placement)III	0.00	0.00
061	8.71% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 10th June 2016 and ending on 10th June 2030 (Thirty fourth issue - private placement)III	0.00	0.00
062	8.8493% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 25th March 2016 and ending on 25th March 2030 (Thirty second issue - private placement)III	0.00	0.00
063	9.37% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 70,00,000/- each with fourteen separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 4th June 2012 and ending on 4th December 2018 (Twenty fifth issue -	0.00	0.00

एनटीपीसी/PAWAN DEV JAKHAR
Dy. GM (F) at SECL, Bilaspur
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

NOTE NO. 23 TO THE FS-NCL-BORROWINGS (Amount in ₹)

	As at	31.03.2023	31.03.2022
	private placement)III		
065	9.06% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with fourteen separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 4th June 2012 and ending on 4th December 2018 (Twenty sixth issue - private placement)III	0.00	0.00
066	8.6077% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 9th September 2011 and ending on 9th March 2021 (Twenty fourth issue - private placement)IV	0.00	0.00
067	8.3796% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 5th August 2011 and ending on 5th February 2021 (Twenty third issue - private placement)IV	0.00	0.00
068	8.1771% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 2nd July 2011 and ending on 2nd January 2021 (Twenty second issue - private placement)IV	0.00	0.00
069	7.7125% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 2nd August 2010 and ending on 2nd February 2020 (Twenty first issue - private placement)IV	0.00	0.00
070	7.552% Secured non-cumulative non-convertible redeemable taxable bonds	0.00	0.00

NOTE NO. 23 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
	of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 23rd September 2009 and ending on 23rd March 2019 (Twentieth issue – private placement)VI		
071	9.55% Secured non-cumulative non-convertible taxable redeemable bonds of ₹ 10,00,000/- each with ten equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of the 6th year and in annual installments thereafter upto the end of 15th year respectively from 30th April 2002 (Thirteenth issue – Part B - private placement)VIII	0.00	0.00
072	9.55% Secured non-cumulative non-convertible taxable redeemable bonds of ₹ 10,00,000/- each redeemable at par in ten equal annual installments commencing from the end of 6th year and upto the end of 15th year respectively from 18th April 2002 (Thirteenth issue -Part A - private placement)VIII	0.00	0.00
075		0.00	0.00
076		0.00	0.00
077	**Sub Total**	**0.00**	**0.00**
078	**Unsecured**	**0.00**	**0.00**
079	6.55% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 17 April 2023 (Seventieth Issue - Private Placement)	0.00	0.00
080	6.29% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 11 April 2031 (Seventy First Issue - Private Placement)	0.00	0.00
081	5.45% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 15 October 2025 (Seventy Second Issue - Private Placement)	0.00	0.00
082	6.43% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 23 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
	full on 27 January 2031 (Seventy Third Issue - Private Placement)		
083	6.87% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 21 April 2036 (Seventy Fourth Issue - Private Placement)	0.00	0.00
084	6.69% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 13 September 2031 (Seventy Fifth Issue - Private Placement)	0.00	0.00
085	6.74% Unsecured non-cumulative non-convertible redeemable taxable bonds of Rs.10,00,000/- each redeemable at par in full on 14 April 2032 (Seventy Sixth Issue - Private Placement)	0.00	0.00
086	5.78% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 29 April 2024 (Seventy Seventh Issue - Private Placement)	0.00	0.00
087	7.44% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 25 August 2032 (Seventy Eighth Issue - Private Placement)	0.00	0.00
088	7.44% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 15 April 2033 (Seventy Ninth Issue - Private Placement)	0.00	0.00
089		0.00	0.00
090	**Sub-total**	**0.00**	**0.00**
091	**Total**	**0.00**	**0.00**
092	**Foreign Currency Notes-Unsecured**	**0.00**	**0.00**
093	4.50% Fixed Rate Notes Due for repayment on 19th March 2028	0.00	0.00
094	2.75% Fixed rate notes due for repayment on 1st February 2027	0.00	0.00
095	4.25 % Fixed rate notes due for repayment on 28th February 2028	0.00	0.00
096	4.375% Fixed Rate Note due for repayment on 29th November 2024	0.00	0.00
097	4.75 % Fixed Rate Notes due for repayment on 3rd Oct 2022	0.00	0.00
098	7.25 % Fixed green global INR denominated bonds due on 3 May 2022	0.00	0.00
099	7.375 % Fixed green global INR denominated bonds due on 10 August 2021	0.00	0.00
100	5.625% Fixed Rate Notes due for repayment on	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 33 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
	16th July 2021		
101	3.75 % Fixed rate notes due for repayment on 03 April 2024	0.00	0.00
102		0.00	0.00
103		0.00	0.00
104		0.00	0.00
105	**Sub Total**	**0.00**	**0.00**
106	**Term Loans**	**0.00**	**0.00**
107	**From Banks**	**0.00**	**0.00**
108	**Secured**	**0.00**	**0.00**
109	Rupee Loans	0.00	0.00
110	**Unsecured**	**0.00**	**0.00**
111	Foreign Currency Loans	0.00	0.00
112	Rupee Loans	0.00	0.00
113	**From Others**	**0.00**	**0.00**
114	**Secured**	**0.00**	**0.00**
115	Rupee Loans	0.00	0.00
116	Foreign Currency loans (guaranteed by GOI)	0.00	0.00
117	**Unsecured**	**0.00**	**0.00**
118	Foreign Currency loans (guaranteed by GOI)	0.00	0.00
119	Other Foreign currency loans	0.00	0.00
121	Rupee Loans	0.00	0.00
122	**Deposits**	**0.00**	**0.00**
123	**Unsecured**	**0.00**	**0.00**
124	Fixed Deposits	0.00	0.00
125	**Others**	**0.00**	**0.00**
126	**Unsecured**	**0.00**	**0.00**
127	Bonds Application Money Pending Allotment	0.00	0.00
128	**Sub-total**	**0.00**	**0.00**
129	**Total**	**0.00**	**0.00**
130	Less - Interst accrued but not due on secured borrowings	0.00	0.00
131	Less - Interst accrued but not due on unsecured borrowings	0.00	0.00
132	Less - Current maturities of long term borrowings	0.00	0.00
133	Bonds-Secured	0.00	0.00
134	Fixed Rate Notes	0.00	0.00
135	Foreign currency loans from Banks- unsecured	0.00	0.00
137	Rupee loans from banks- Secured	0.00	0.00
138	Rupee loans from banks- unsecured	0.00	0.00
139	Rupee Term loan from Others - Secured	0.00	0.00
140	Foreign currency loans from others- unsecured (Guaranteed by GOI)	0.00	0.00
141	Other foreign currency loans from others-unsecured	0.00	0.00
142	Rupee loans from others- unsecured	0.00	0.00
143		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 23 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
144		0.00	0.00
145		0.00	0.00
146		0.00	0.00
147		0.00	0.00
148		0.00	0.00
149		0.00	0.00
150		0.00	0.00
151		0.00	0.00
201	Total	0.00	0.00

Locked 23.04.2023 - 14:07:24
Run on 23.04.2023 - 14:08:39 Version: 0

1109

PART: BARWADIH COAL MINE

NOTE: NO. 23A TO THE FS-NCL-LEASE BORROWINGS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	**Non-current financial liabilities - Lease liabilities**	**0.00**	**0.00**
002	**Lease liabilities**	**0.00**	**0.00**
003	Long term maturities of Finance Lease Liabilities (Secured) IX	0.00	0.00
004	Long term maturities of Finance Lease Liabilities (Unsecured) X	1,919,615,270.01	1,759,084,316.01
005	**Sub-Total**	**1,919,615,270.01**	**1,759,084,316.01**
006	**Less: current maturities of lease liabilities**	**0.00**	**0.00**
007	Finance Lease obligations - secured	0.00	0.00
008	Finance Lease obligations - unsecured	187,632,912.00	73,480,595.00
009	**Sub-Total**	**187,632,912.00**	**73,480,595.00**
011	**Total**	**1,731,982,358.01**	**1,685,603,721.01**

PAKRI BARWADIH COAL MINE

NOTE NO. 24 TO THE FS-NCL-TRADE PAYABLES

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	TRADE PAYABLES(NON CURRENT)	0.00	0.00
002	For Goods and Services	0.00	0.00
003	- Micro & Small Enterprises	0.00	44,287.65
004	- Others	477,203.93	3,151,156.93
005		0.00	0.00
007	Total	477,203.93	3,195,444.58

Locked: 23.04.2023 - 14:07:24

Run on: 23.04.2023 - 14:08:41 Version: 0

1181

PATH: BARWADIH COAL MINE

NOTE NO. 25 TO THE FS-NCL-OTHER FINANCIAL LIABILITIES (Amount in ₹)

	As at	31.03.2023	31.03.2022
001	**OTHER FINANCIAL LIABILITIES (NON-CURRENT)**	**0.00**	0.00
002	Payable for Capital Expenditure	0.00	0.00
003	- Micro & Small Enterprises	0.00	0.00
004	- Others	21,593,921.00	0.00
005	Others	0.00	0.00
006	Deposits from contractors and others	0.00	0.00
007		0.00	0.00
008		0.00	0.00
010	Total	**21,593,921.00**	0.00

Locked: 23.04.2023 - 14:07:24
Run on: 23.04.2023 - 14:08:41 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 26 TO THE FS-NCL-PROVISIONS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	**LONG TERM PROVISIONS**	**0.00**	**0.00**
002	**Provision for Employee Benefits**	**0.00**	**0.00**
003	Opening Balance	0.00	0.00
004	Additions/ (adjustments) during the year	0.00	0.00
005	**Closing Balance**	**0.00**	**0.00**
006		0.00	0.00
007	**Others**	**0.00**	**0.00**
008	**i) Mine Closure Provision**	**0.00**	**0.00**
009	Opening Balance	2,251,300,000.00	2,103,000,000.00
010	Additions during the year	154,600,000.00	148,300,000.00
011	Amounts adjusted during the year	0.00	0.00
012	Amounts reversed during the year	0.00	0.00
013	**Closing Balance**	**2,405,900,000.00**	**2,251,300,000.00**
014		0.00	0.00
015	**ii) Stripping Activity Adjustments**	**0.00**	**0.00**
016	Opening Balance	1,792,446,942.00	350,110,251.00
017	Additions during the year	1,625,829,685.00	1,442,336,691.00
018	Amounts adjusted during the year	0.00	0.00
019	Amounts reversed during the year	0.00	0.00
020	**Closing Balance**	**3,418,276,627.00**	**1,792,446,942.00**
021		0.00	0.00
024		0.00	0.00
026	**TOTAL**	**5,824,176,627.00**	**4,043,746,942.00**

पवन देव जमता/PAWAN DEV JAMTA

Dep. [illegible] NTPC LIMITED

EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Locked: 23.04.2023 - 14:07:24

Run on: 23.04.2023 - 14:08:42 Version: 0

NOTE NO. 27 TO THE FS-NCL-DEFERRED TAX LIABILITIES (NET)

(Amount in ₹)

	As at	Open Balance on 01.04.2022	Addition	Closing Balance on 31.03.2023
001	DEFERRED TAX LIABILITIES (NET)			
002	Difference of book depreciation and tax depreciation	0.00	0.00	0.00
003	Less: Deferred tax assets			
004	Provisions & Other disallowances for tax purposes	0.00	0.00	0.00
005	Unabsorbed Depreciation	0.00	0.00	0.00
006	Disallowances u/s 43B of the Income Tax Act, 1961	0.00	0.00	0.00
007	Others	0.00	0.00	0.00
008	Opening Balance	0.00	0.00	0.00
009	Additions during the year	0.00	0.00	0.00
010	Amounts adjusted during the year	0.00	0.00	0.00
011	Amounts reversed during the year	0.00	0.00	0.00
012	Closing Balance	0.00	0.00	0.00
013	MAT credit entitlement	0.00	0.00	0.00
014	Total	0.00	0.00	0.00
016		0.00	0.00	0.00
017	Total	0.00	0.00	0.00
018	Breakup of deferred tax assets	0.00	0.00	0.00
019	Provision	0.00	0.00	0.00
020	Statutory dues	0.00	0.00	0.00
021	Leave encashment	0.00	0.00	0.00
022	Others	0.00	0.00	0.00
023		0.00	0.00	0.00
024		0.00	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 28 TO THE FS-NCL-OTHER NON-CURRENT LIABILITIES (Amount in ₹)

	As at	31.03.2023	31.03.2022
001	Other Non current Liabilities	0.00	0.00
002	Advances from customers and others	0.00	0.00
003	Deposits from contractors and others	0.00	0.00
004	Grants	0.00	0.00
005		0.00	0.00
007	TOTAL	0.00	0.00

Locked: 23.04.2023 - 14:07:24
Run on: 23.04.2023 - 14:08:44 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 29 TO THE FS-CL-BORROWINGS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	**Short Term Borrowings**	**0.00**	**0.00**
002	**Loans repayable on demand**	**0.00**	**0.00**
003	**From Banks**	**0.00**	**0.00**
004	**Secured**	**0.00**	**0.00**
005	Cash Credit	0.00	0.00
006	**Unsecured**	**0.00**	**0.00**
007	Cash Credit	0.00	0.00
008	**Other loans-unsecured**	**0.00**	**0.00**
009	Commercial Papers	0.00	0.00
010	Less: Unamortised discount on Commercial Papers	0.00	0.00
011	**Sub-Total**	**0.00**	**0.00**
012	**Current maturity of long term borrowings**	**0.00**	**0.00**
013	Bonds-Secured	0.00	0.00
014	Foreign Currency Fixed Rate Notes	0.00	0.00
015	**From Banks**	**0.00**	**0.00**
016	**Secured**	**0.00**	**0.00**
017	Rupee Term Loan	0.00	0.00
018	Foreign currency loans	0.00	0.00
019	**Unsecured**	**0.00**	**0.00**
020	Foreign currency loans	0.00	0.00
021	Rupee term loans	0.00	0.00
022	**From Others**	**0.00**	**0.00**
023	**Secured**	**0.00**	**0.00**
024	Rupee Term Loan	0.00	0.00
025	**Unsecured**	**0.00**	**0.00**
026	Foreign currency loans (Guaranteed by Government of India)	0.00	0.00
027	Other foreign currency loans	0.00	0.00
028	Rupee term loans	0.00	0.00
029	Fixed deposits	0.00	0.00
031	Sub Total	0.00	0.00
032		0.00	0.00
034	**TOTAL**	**0.00**	**0.00**

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 29A TO THE FS-CL-LEASE BORROWINGS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	**Current financial liabilities - Lease liabilities**	**0.00**	**0.00**
002	Current maturity of finance lease obligations (secured)	0.00	0.00
003	Current maturity of finance lease obligations (unsecured)	167,632,912.00	73,480,565.00
005	**Total**	**167,632,912.00**	**73,480,565.00**

Exported: 23.04.2023 - 14:07:24

Run on: 23.04.2023 - 14:09:31 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 36 TO THE FS-CL-TRADE PAYABLES

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	**TRADE PAYABLES**	**0.00**	**0.00**
002	For Goods and Services	0.00	0.00
003	- Micro & Small Enterprises	55,223,189.96	17,680,339.00
004	- Others	2,594,958,701.63	1,410,030,619.27
005		0.00	0.00
007	**Total**	**2,650,181,891.59**	**1,427,710,958.27**
008		0.00	0.00
172	**Trade payable**	**0.00**	**0.00**
173	**MSME**	**0.00**	**0.00**
174	Unbilled	9,732,661.96	347,035.00
175	Not due	38,057,998.00	7,780,929.00
176	**Due**	**9,432,532.00**	**9,632,376.00**
177	Disputed	0.00	0.00
178	Undisputed	9,432,532.00	9,632,376.00
179		0.00	0.00
180	**Sub-total (A)**	**55,223,189.96**	**17,680,339.00**
181		0.00	0.00
182	**Others**	**0.00**	**0.00**
183	Unbilled	129,351,935.43	311,165,370.98
184	Not due	432,701,114.52	936,012,500.00
185	**Due**	**2,032,905,651.68**	**162,852,748.29**
186	Disputed	0.00	0.00
187	Undisputed	2,032,905,651.68	162,852,748.29
188		0.00	0.00
189	**Sub-total (B)**	**2,594,958,701.63**	**1,410,030,619.27**
190		0.00	0.00
191	**Total**	**2,650,181,891.59**	**1,427,710,958.27**
192		0.00	0.00
193	**Ageing**	**0.00**	**0.00**
194	**MSME**	**0.00**	**0.00**
195	**Disputed**	**0.00**	**0.00**
196	Less than 1 year	0.00	0.00
197	1-2 years	0.00	0.00
198	2-3 years	0.00	0.00
199	More than 3 years	0.00	0.00
200	**Sub Total (I)**	**0.00**	**0.00**
201		0.00	0.00
202	**Undisputed**	**0.00**	**0.00**
203	Less than 1 year	9,432,532.00	9,632,376.00
204	1-2 years	0.00	0.00
205	2-3 years	0.00	0.00
206	More than 3 years	0.00	0.00
207	**Sub Total (II)**	**9,432,532.00**	**9,632,376.00**
208		0.00	0.00
209	**Total MSME (III)**	**9,432,532.00**	**9,632,376.00**
210		0.00	0.00

Locked: 23.04.2023 - 14:07:24

Run on: 23.04.2023 - 14:08:51. Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 30 TO THE FS-CL-TRADE PAYABLES

(Amount in ₹)

	As at	31.03.2023	31.03.2022
211	**Others**	**0.00**	**0.00**
212	**Disputed**	**0.00**	**0.00**
213	Less than 1 year	0.00	0.00
214	1-2 years	0.00	0.00
215	2-3 years	0.00	0.00
216	More than 3 years	0.00	0.00
217	**Sub Total (IV)**	**0.00**	**0.00**
218		0.00	0.00
219	**Undisputed**	**0.00**	**0.00**
220	Less than 1 year	2,027,267,846.58	53,359,727.20
221	1-2 years	3,723,178.00	1,980,566.00
222	2-3 years	470,375.00	107,512,423.10
223	More than 3 years	1,444,252.10	0.00
224	**Sub Total (V)**	**2,032,905,651.68**	**162,852,748.30**
225		0.00	0.00
226	**Total Others (VI)**	**2,032,905,651.68**	**162,852,748.30**

Locked: 23.04.2023 - 14:07:24
Form rev: 23.04.2023 - 14:08:51 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 31 TO THE FS-CL-OTHER FINANCIAL LIABILITIES

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	**OTHER FINANCIAL LIABILITIES (CURRENT)**	**0.00**	**0.00**
020	Interest accrued but not due on Unsecured Short Term Borrowing	0.00	0.00
021	Interest accrued but not due on secured borrowings	0.00	0.00
022	Interest accrued but not due on unsecured borrowings	0.00	0.00
023	Unpaid Dividends*	0.00	0.00
024	Unpaid matured deposits and interest accrued thereon*	0.00	0.00
025	Unpaid matured bonds and interest accrued thereon*	0.00	0.00
026	Unpaid bond refund money-Tax free bonds *	0.00	0.00
027	Book Overdraft	0.00	0.00
028	Payable to Customers	0.00	0.00
029	Liability under forward exchange contact	0.00	0.00
030	Hedging cost payable to beneficiaries	0.00	0.00
031	Derivative MTM Liability	0.00	0.00
032	**Payable for Capital Expenditure**	**0.00**	**0.00**
033	- Micro & Small Enterprises	17,444,098.97	44,691,164.86
034	- Others	1,519,595,383.02	3,144,969,851.64
035	**Others Payables**	**0.00**	**0.00**
036	Deposits from contractors and others	13,874,823.36	13,626,523.36
037	Gratuity Obligations	0.00	0.00
038	Payable to employees	4,148,690.71	2,360,903.74
039	Payable to holding company	0.00	0.00
040	Retention on A/c BG encashment (Solar)	0.00	0.00
041	Payable to Solar Payment Security Account	0.00	0.00
042	Others **	2,516,076,323.00	2,515,394,599.00
043	Unspent CSR balance on ongoing Approved CSR projects	0.00	0.00
045		0.00	0.00
046		0.00	0.00
047	**Total**	**4,071,679,229.06**	**5,721,623,052.40**
048	* Represents the amounts which have not been claimed by the investor/holders of the bonds/fixed deposits. Out of the above, no amount is due for payment to Investor Education and Protection Fund.	0.00	0.00
049	** Include Payable to Hospital and other payable	0.00	0.00

FAKRI BARWADIH COAL MINE

NOTE NO. 32 TO THE FS-CL-OTHER CURRENT LIABILITIES

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	OTHER CURRENT LIABILITIES	0.00	0.00
002	Advances from customers and others	0.00	0.00
003	Deferred discount on forward exchange contact	0.00	0.00
004	Tax deducted at source and other statutory dues	1,075,837,932.44	793,578,646.91
005	Deposits from contractors and others	0.00	0.00
006	Government grants	0.00	0.00
007	Others	0.00	0.00
008		0.00	0.00
010		0.00	0.00
011	Total	1,075,837,932.44	793,578,646.91

Locked: 23.04.2023 - 14:07:24
Run on: 23.04.2023 - 14:08:53 Version: 0

1191

PAKRI BARWADIH COAL MINE

NOTE NO. 33 TO THE FS-CL-PROVISIONS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	**SHORT TERM PROVISIONS**	**0.00**	**0.00**
002	**Provision for Employee Benefits**	**0.00**	**0.00**
003	Opening balance	0.00	0.00
004	Additions/ (adjustments) during the year	0.00	0.00
005	**Closing Balance**	**0.00**	**0.00**
028	**Provisions for Obligations Incidental to Land Acquisition**	**0.00**	**0.00**
029	Opening balance	2,206,606,003.46	3,238,691,765.15
030	Additions during the year	678,561,687.00	1,050,684,655.01
031	Amounts paid during the year	1,406,293,453.08	2,082,770,416.70
032	Amounts reversed during the year	183,669,349.00	0.00
033	**Closing Balance**	**1,295,204,888.38**	**2,206,606,003.46**
035	**Provision for Tariff Adjustment**	**0.00**	**0.00**
036	Opening balance	0.00	0.00
037	Additions during the year	0.00	0.00
038	Amounts adjusted during the year	0.00	0.00
039	Amounts reversed during the year	0.00	0.00
040	**Closing Balance**	**0.00**	**0.00**
042	**Provision for shortage in Fixed Assets Pending Investigation & Others**	**0.00**	**0.00**
043	Opening balance	607,747.00	111,899.00
044	Additions during the year	0.00	495,848.00
045	Amounts adjusted during the year	0.00	0.00
046	Amounts reversed during the year	0.00	0.00
047	**Closing Balance**	**607,747.00**	**607,747.00**
048	**Provision for Arbitration**	**0.00**	**0.00**
049	Opening balance	0.00	0.00
050	Additions during the year	0.00	0.00
051	Amounts used during the year	0.00	0.00
052	Amounts reversed during the year	0.00	0.00
053	**Closing Balance**	**0.00**	**0.00**
054	**Others**	**0.00**	**0.00**
055	Opening balance	0.00	0.00
056	Additions during the year	0.00	0.00
057	Amounts used during the year	0.00	0.00
058	Amounts reversed during the year	0.00	0.00
059	**Closing Balance**	**0.00**	**0.00**
102		0.00	0.00
104	**Total**	**1,295,812,635.38**	**2,207,213,750.46**

पवन देव जामाल/PAWAN DEV JAMAL
उप महाप्रबन्धक (कार्यालय)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC-A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 34 TO THE FS-CL-CURRENT TAX LIABILITIES (NET) (Amount in ₹)

	Actual	31.03.2023	31.03.2022
001	Current liabilities - current tax liabilities (net)	0.00	0.00
002	Opening balance	0.00	0.00
003	Additions during the year	0.00	0.00
004	Amounts adjusted during the year	0.00	0.00
005	Less: Set off against taxes paid	0.00	0.00
007		0.00	0.00
008	**Closing Balance**	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 35 TO THE FS--DEFERRED REVENUE

[Amount in ₹]

	As at	31.02.2023	31.03.2022
001	Deferred Revenue	0.00	0.00
002	On account of advance against depreciation	0.00	0.00
003	On account of income from foreign currency fluctuation	0.00	0.00
004	Government grants	0.00	0.00
007		0.00	0.00
008		0.00	0.00
009	TOTAL	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 36 TO THE FS--REGULATORY DEFERRAL ACCOUNT CREDIT BALANCES (Amount in ₹)

	As at	31.03.2023	31.03.2022
001	Regulatory deferral account credit balances	0.00	0.00
002	Exchange Differences	0.00	0.00
003		0.00	0.00
005	Total	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 37 TO THE FS--REVENUE FROM OPERATIONS

(Amount in ₹)

	For the Year ended	31.03.2023	31.03.2022
001	**REVENUE FROM OPERATIONS**	**0.00**	**0.00**
002	**Sales**	**0.00**	**0.00**
003	Energy Sales (including Electricity Duty)	0.00	0.00
004	Less : Advance against depreciation deferred (net)	0.00	0.00
005	Add: Revenue recognized out of advance against depreciation	0.00	0.00
006	Add : Exchange fluctuation receivable from customers	0.00	0.00
007	Sale of energy through trading	0.00	0.00
008	Commission (NVVN)	0.00	0.00
009	**Sub total**	**0.00**	**0.00**
010	Less: Rebate to customers	0.00	0.00
011	**Energy Sales (Total)**	**0.00**	**0.00**
012	Consultancy, project management and supervision fees	0.00	0.00
013	Lease rentals on assets on Operating lease	0.00	0.00
014	Sale of Captive Coal	30,381,519,521.23	18,521,036,705.78
015	Intra Company Elimination	0.00	0.00
017	**Sub-total**	**30,381,519,521.23**	**18,521,036,705.78**
018	**Total - Sales**	**30,381,519,521.23**	**18,521,036,705.78**
019	Sale of fly ash/ash products	0.00	0.00
020	Less: Transferred to fly ash utilisation reserve fund	0.00	0.00
021	**Sub-total**	**0.00**	**0.00**
022	**Other Operating Income**	**0.00**	**0.00**
023	Interest from customers	0.00	0.00
024	Energy Internally Consumed *	0.00	0.00
025	Interest income on Assets under finance lease	0.00	0.00
026	Recognized from deferred revenue - government grant	0.00	0.00
027	Provision written back- Tariff Adjustment	0.00	0.00
028	Income form Trading of ESCerts	0.00	0.00
029	Income from E-Mobility Business & others	0.00	0.00
030	Others	0.00	0.00
032		0.00	0.00
033		0.00	0.00
034	**Total**	**30,381,519,521.23**	**18,521,036,705.78**
040	* Valued at variable cost of generation and corresponding amount included in power charges (Note No. 42)	0.00	0.00
041	Excise duty on sale of flyash,cenospere & ash products	0.00	0.00
042	Energy sales of principal nature (NVVN)	0.00	0.00
043	Energy sales of agency nature (NVVN)	0.00	0.00

पवन देव जागता/PAWAN DEV JAKITA
उप महाप्रबंधक (वित्त)
Dy. General Manager (Finance)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 38 TO THE FS--OTHER INCOME

(Amount in ₹)

	For the Year ended	31.03.2023	31.03.2022
001	**OTHER INCOME**	**0.00**	**0.00**
002	**Interest from**	**0.00**	**0.00**
004	**Financial assets at amortised cost**	**0.00**	**0.00**
005	Government Securities (8.5% Tax Free Bonds issued by the State Governments)	0.00	0.00
006	Other Bonds	0.00	0.00
007	Non current Trade Receivable	0.00	0.00
008	Interest from Government of India Securities-Non Trade	0.00	0.00
009	Less: Amortisation of premium	0.00	0.00
010	**Sub Total**	**0.00**	**0.00**
011	Interest from others	0.00	0.00
012	Loan to State Government in settlement of dues from customers	0.00	0.00
013	Loan to Subsidiary Companies	0.00	0.00
014	Loan to Employees	7,184,594.43	5,090,659.19
015	Deposit with banks	19,217,596.71	10,679,797.09
016	Foreign Banks	0.00	0.00
017	Interest from Contractors	108,084,393.60	12,900,337.00
018	Interest from Income Tax Refunds	0.00	0.00
019	Less : Refundable to Customers	0.00	0.00
020	**Sub Total**	**0.00**	**0.00**
021	Deposits with banks-flyash utilisation reserve fund	0.00	0.00
022	Less: transferred to flyash utilisation reserve fund	0.00	0.00
023	**Sub Total**	**0.00**	**0.00**
024	Deposits with banks- DDUGJY funds	0.00	0.00
025	Interest from Contractors- DDUGJY funds	0.00	0.00
026	Transfer to DDUGJY-Advance from customers	0.00	0.00
027	Sub total	0.00	0.00
030	Others	0.00	0.00
031	Other investments in Joint venture companies	0.00	0.00
032	**Dividend from**	**0.00**	**0.00**
033	**Longterm investments in**	**0.00**	**0.00**
034	Subsidiaries	0.00	0.00
035	Joint Ventures	0.00	0.00
036	Equity Instruments	0.00	0.00
037	**Current investments in**	**0.00**	**0.00**
038	Mutual Funds measured at fairvalue through profit or loss	0.00	0.00
039	Current investments in mutual funds-flyash utilisation reserve fund	0.00	0.00
040	Less: transferred to flyash utilisation reserve fund	0.00	0.00
041	Lease Rent # Ash Brick Plant	0.00	0.00
042	Less: transferred to flyash utilisation reserve fund	0.00	0.00
043	Other non-operating income	0.00	0.00
044	Profit on disposal of PPE	1,993.00	2,562.00
045	Profit on redemption of GOI securities	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 38 TO THE FS--OTHER INCOME

(Amount in ₹)

	For the Year ended	31.03.2023	31.03.2022
040	Net gain on sale of investments	0.00	0.00
047	Surcharge received from customers	0.00	0.00
048	Hire charges for equipment	0.00	0.00
049	Gain on option contract / Discount on F.ExchContract	0.00	0.00
050	Provision written back-others	0.00	0.00
051	Fair value gains/(losses) on investments in mutual funds at fair value through profit or loss	0.00	0.00
052	Interest from Solar payment security account	0.00	0.00
053	Less : Transferred to SPSA fund	0.00	0.00
054	Interest on "Retention on A/c BG encashment (Solar)"	0.00	0.00
055	Less : Transferred to "Retention on A/c BG encashment (Solar)"	0.00	0.00
056	Miscellaneous Income	48,519,218.26	4,281,147.87
057	**Total**	**183,997,736.00**	**32,956,293.44**
058	Less:Transferred to Development of Coal Mines-Note 43A	3,050.00	2,250.00
059	Less:Transferred to Expenditure during Construction period (net)- Note 43	0.00	0.00
060	Less: Others	0.00	0.00
061	Less:Transferred to payable to Govt. of Jharkhand	0.00	0.00
062		0.00	0.00
064		0.00	0.00
065	**Total**	**183,004,686.00**	**32,954,043.44**
066		0.00	0.00
067	**Details of Miscellaneous Income**	**0.00**	**0.00**
068	Vehicle Hire Charges.	62,000.00	106,000.00
069	Sale of by products & residuals.	0.00	0.00
070	Township recoveries(qual. Hospital Recoveries).	46,177,835.66	200,527.97
071	Depreciation written back	0.00	0.00
072	Sale of Scrap.	0.00	0.00
073	Receipt under loss of profit policy.	0.00	0.00
074	Receipts under MED/Fire Policy	0.00	0.00
075	Management development programme.	0.00	0.00
076	Management Fee - Misc (NVVN)	0.00	0.00
077	Others	2,280,382.60	3,974,619.90
078		0.00	0.00
079	**Total (Miscellaneous Income)**	**48,519,218.26**	**4,281,147.87**
080		0.00	0.00
081	**Details of Provision written back others**	**0.00**	**0.00**
082	Doubtful debts	0.00	0.00
083	Doubtful Loans, Advances and Claims	0.00	0.00
084	Doubtful Construction Advances	0.00	0.00
085	Shortage in Construction Stores	0.00	0.00
086	Shortage in Stores	0.00	0.00
087	Obsolescence in Stores	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 38 TO THE FS--OTHER INCOME

(Amount in ₹)

	For the Year ended	31.03.2023	31.03.2022
088	Unserviceable capital works	0.00	0.00
089	Other Obligation including Arbitration	0.00	0.00
090	Shortage in Fixed Assets	0.00	0.00
091	Diminution in value of Investment	0.00	0.00

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Dep. General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 38A TO THE FS--FUEL COST

(Amount in ₹)

	For the Year ended	31.03.2023	31.03.2022
001	**FUEL COST**	**0.00**	**0.00**
002	Coal	0.00	0.00
003	Captive	22,410,227,921.92	15,123,996,615.87
004	Other than captive	0.00	-14,299,443.97
005	Gas	0.00	0.00
006	Naptha	0.00	0.00
007	Oil	0.00	0.00
008	Biomass Pellets & Others	0.00	0.00
009		0.00	0.00
010	**Total**	**22,410,227,921.92**	**15,109,697,171.90**
011		0.00	0.00

पवन देव जमाता/PAWAN DEV JAMTA
Dep... Manager
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 39 TO THE FS--EMPLOYEE BENEFITS EXPENSE

(Amount in ₹)

	For the Year ended	31.03.2023	31.03.2022
001	**EMPLOYEE BENEFITS EXPENSE**	**0.00**	**0.00**
002	Salaries and wages	520,245,616.96	494,515,738.04
003	Contribution to provident and other funds	62,858,086.56	54,214,686.71
004	Unwinding of deferred payroll expense	4,295,313.03	2,908,036.15
005	Staff welfare expenses	104,416,821.79	86,636,013.41
006	Less : Expenses transferred to Consultancy group	0.00	0.00
007		0.00	0.00
008	**Sub Total**	**691,815,838.34**	**638,274,476.31**
009	Less: Employee benefits expense allocated to fuel inventory	192,373,822.49	188,667,032.16
010	Less: Transferred/Allocated to development of coal mines	16,054,193.95	17,606,036.78
011	Less: Others	0.00	0.00
012	Less: Transferred to fly ash utilisation reserve fund	0.00	0.00
013	Less: Transferred to CSR Expenses	0.00	0.00
014	Reimbursements for employees on secondment	1,407,089.00	556,732.00
015	Less: Transferred to expenditure during construction period (net)- Note 43	0.00	0.00
016	Less: Transfer to Govt of Jharkhand A/c as recoverable	0.00	0.00
018		0.00	0.00
019	**TOTAL**	**479,981,532.90**	**431,444,575.37**
020	**Managerial Remuneration paid/ payable to Directors included above (except for Directors fee which is included in Note 42)**	**0.00**	**0.00**
021	Salaries and wages	0.00	0.00
022	Contribution to provident and other funds	0.00	0.00
023	Staff welfare expenses	0.00	0.00
024	Directors fee	0.00	0.00
025		0.00	0.00

PAWAN DEV JAMTA

Locked: 23.04.2023 - 14:07:23
Run on: 23.04.2023 - 14:09:39 Version: 0

1201

PAKRI BARWADIH COAL MINE

NOTE NO. 40 TO THE FS--FINANCE COSTS

(Amount in ₹)

	For the Year ended	31.03.2023	31.03.2022
001	**FINANCE COSTS**	**0.00**	**0.00**
002	Finance charges on financial liabilities measured at amortised cost	0.00	0.00
003	Bonds	896,106,748.60	719,664,892.15
004	Government of India Loans	0.00	0.00
005	Foreign currency term loans	0.00	0.00
006	Rupee term loans	964,038,914.00	877,888,782.80
007	Public deposits	0.00	0.00
008	Foreign currency bonds/notes	0.00	0.00
009	Cash Credit	0.00	0.00
010	Unwinding of discount on account of vendor liabilities	304,176,427.69	290,787,468.09
011	Commercial Papers	0.00	0.00
012	**Sub Total**	**2,164,322,090.29**	**1,879,339,950.83**
013	Interest on non financial items	0.00	0.00
014	**Other Borrowing Costs**	**0.00**	**0.00**
015	Bonds servicing & public deposit exp.	816,052.15	764,573.54
016	Guarantee fee	0.00	0.00
017	Management fee	0.00	0.00
018	Committ charges/exposure premium	0.00	0.00
019	Bond issue expenses	0.00	0.00
020	Legal exp on foreign currency loans	0.00	0.00
021	Foreign currency bonds/notes exp.	0.00	0.00
022	Up-front fee	0.00	0.00
023	Insurance premium on foreign currency loans	0.00	0.00
024		0.00	0.00
025	Others	0.00	0.00
026	**Sub Total (Other Borrowing cost)**	**816,052.15**	**764,573.54**
027		0.00	0.00
028	**Exchange differences regarded as an adjustment to borroeing costs**	**0.00**	**0.00**
029	**Sub Total**	**2,165,138,142.44**	**1,880,103,724.37**
030	Less: Transferred to Expenditure during construction period (net) - Note 43	0.00	0.00
031	Less: Transferred to development of coal mines- Note 43A	370,642,941.00	943,444,634.00
032		0.00	0.00
034	**Total**	**1,814,495,201.44**	**936,659,090.37**

PAKRI BARWADIH COAL MINE

NOTE NO. 41 TO THE FS--DEPRECIATION AND AMORTIZATION EXPENSES

(Amount in ₹)

	For the Year ended	31.03.2023	31.03.2022
001	**Depreciation and amortization expenses**	**0.00**	**0.00**
002	On property, plant and equipment- Note 2	1,944,403,589.95	1,214,067,379.69
003	On investment property	0.00	0.00
004	On intangible assets- Note 4	3,778,814.80	1,040,403.26
005		0.00	0.00
006	Sub-total	1,948,182,384.75	1,215,107,782.95
007	Less:	0.00	0.00
008	Allocated to fuel inventory	1,190,120,595.62	981,422,971.92
009	Transferred to Expenditure during Construction Period (net)- Note 43	0.00	0.00
010		0.00	0.00
011	Transferred/Allocated to development of coal mines	0.00	0.00
012	Adjustment with deferred revenue from deferred foreign currency fluctuation	0.00	0.00
012		0.00	0.00
013	Total	**758,061,789.13**	**233,684,810.94**

PAKRI BARWADIH COAL MINE

NOTE NO. 42 TO THE FS--OTHER EXPENSE

(Amount in ₹)

	For the Year ended	31.03.2023	31.03.2022
001	**OTHER EXPENSES**	**0.00**	0.00
002	Power charges	289,885,650.00	98,374,284.00
003	Less: Recovered from contractors & employees	210,061,421.51	70,323,111.99
004	**Sub-Total(Power Charges)**	**79,824,428.49**	**28,051,172.01**
005	Water charges	0.00	0.00
006	Stores consumed	-204,825.38	820,738.26
007	Rent	2,240,152.00	2,118,190.00
008	Less:Recoveries	0.00	0.00
009	**Sub-Total (Rent)**	**2,240,152.00**	**2,118,190.00**
010	Cost of captive coal produced	20,820,878,331.80	13,927,613,459.82
011	**Repairs & maintenance**	**0.00**	0.00
012	Buildings	8,575,085.28	7,440,606.36
013	Plant & machinery	0.00	0.00
014	Power stations	221,530,253.37	93,005,945.15
015	Construction equipment	2,294,225.75	928,560.00
016	Others	96,687,884.15	34,567,938.37
017	**Sub-total (Repairs & maintenance)**	**329,087,410.55**	**135,943,050.73**
019	Load Dispatch Center Charges	0.00	0.00
021	Insurance	7,663,681.00	3,260,663.00
022	Interest to beneficiaries	0.00	0.00
023	Rates and taxes	26,804,756.89	10,241,060.10
024	Water cess & environment protection cess	0.00	0.00
025	Training & recruitment expenses	1,701,290.55	503,500.00
026	Less: Receipts	0.00	0.00
027	**Sub-total (Training and recruitment expenses)**	**1,701,290.55**	**503,500.00**
028	Communication expenses	9,910,022.63	9,669,893.36
029	Inland Travel	27,646,749.61	25,788,470.65
030	Foreign Travel	651,598.43	0.00
031	Tender expenses	0.00	0.00
032	Less: Receipt from sale of tenders	0.00	0.00
033	**Sub-total (Tender expenses)**	**0.00**	**0.00**
034	Payment to auditors	0.00	0.00
035	Audit fee	0.00	0.00
036	Tax audit fee	0.00	0.00
037	Other services	0.00	0.00
038	Reimbursement of expenses	0.00	0.00
039	**Sub-total (Payment to Auditors)**	**0.00**	**0.00**
040	Advertisement and publicity	4,000,456.60	4,337,331.92
041	Electricity duty	0.00	0.00
042	Security expenses	142,313,921.11	160,329,812.13
043	Entertainment expenses	5,239,822.17	4,808,744.51
044	Expenses for guest house	3,813,382.74	3,105,310.00
045	Less:Recoveries	19,648.90	41,709.00
046	**Sub-Total (Guest house expenses)**	**3,793,713.84**	**3,063,601.00**
047	Education expenses	0.00	0.00
048	Donations	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 42 TO THE FS--OTHER EXPENSE

(Amount in ₹)

	For the Year ended	31.03.2023	31.03.2022
050	Ash utilisation & marketing expenses	0.00	6,490.00
051	Directors sitting fee	0.00	0.00
053	Professional charges and consultancy fees	89,790,286.25	79,073,696.53
054	Legal expenses	56,048,122.00	36,986,792.00
056	EDP hire and other charges	1,925,057.00	3,743,896.00
056	Printing and stationery	2,292,426.40	826,645.09
057	Oil & gas exploration expenses	0.00	0.00
058	Hiring of vehicles	86,971,047.74	73,328,936.77
061	Reimbursement of L.C.charges on sales realisation	0.00	0.00
062	LOSS ON FAIR VALUATION OF NON- CURRENT TRADE RECEIVABLE AT AMORTISED COST	0.00	0.00
063	Cost of Hedging	0.00	0.00
064	Derivatives MTM loss/(gain) (Net)	0.00	0.00
065	Net loss/(gain) in foreign currency transactions & translations	0.00	0.00
066	Transport Vehicle running expenses	14,114.00	152,254.00
067	Horticulture Expenses	1,126,679.41	374,531.00
068	Hire charges- helicopter/aircraft.	0.00	0.00
069	Hire charges of construction equipment	30,724,180.13	14,141,871.34
070	Demurrage Charges	0.00	0.00
072		0.00	0.00
073	Miscellaneous expenses	16,105,277.32	7,416,356.83
074	Loss on disposal/write off of PPE	0.00	0.00
075	**Sub-Total**	**21,747,025,119.34**	**14,551,730,956.94**
076	Less: Other expenses allocated to fuel inventory	21,027,733,503.81	13,953,906,611.79
077	Less: Transferred/Allocated to development of coal mines	6,785,616.68	2,211,578.92
078	Less: Transferred to fly ash utilisation reserve fund	0.00	0.00
079	Less: Hedging cost Net recoverable/payable from/to beneficiaries	0.00	0.00
080	Less: Others	0.00	0.00
081	Less: Transferred to CSR Expenses	0.00	0.00
082	Less:Transferred to Expenditure during Construction period(net)-Note 43	0.00	0.00
083	Less: Transfer to Govt of Jharkhand A/c as recoverable	0.00	0.00
084	**Net (Generation, Administration and Other expenses)**	**712,505,998.85**	**595,612,766.23**
085	Corporate Social Responsibility Expenses	13,725,240.00	51,651,668.00
086	Less: Grants-in-aid	0.00	0.00
087	**Sub-total (Corporate Social Responsibility Expenses)**	**13,725,240.00**	**51,651,668.00**
088	**Provisions**	**0.00**	**0.00**
089	Doubtful Debts	0.00	0.00
090	Doubtful loans, advances and claims	0.00	0.00
091	Doubtful Construction Advances	0.00	0.00
092	Shortage in stores	0.00	0.00

PAKUR BARWADIH COAL MINE

NOTE NO. 42 TO THE FS--OTHER EXPENSE

(Amount in ?)

	For the Year ended	31.03.2023	31.03.2022
097	Obsolete/Diminution in the value of surplus stores	0.00	0.00
098	Shortage in construction stores	0.00	0.00
099	Diminution in value of long term investments	0.00	0.00
099	Shortage in Fixed assets	0.00	495,848.00
097	Unfinished minimum work progress from oil & gas exploration	0.00	0.00
098	Unserviceable capital works	0.00	0.00
099	Tariff Adjustment	0.00	0.00
100	Others :	0.00	0.00
101	(i) Provision for arbitration cases	0.00	0.00
102	(ii) Other provisions	0.00	0.00
103	**Total (Provisions)**	**0.00**	**495,848.00**
104		0.00	0.00
106	**Total**	**726,231,236.85**	**647,960,482.23**
107		0.00	0.00
108	**Breakup of miscellaneous expenses.**	**0.00**	**0.00**
110	Hire charges of office equipment	0.00	116,426.00
112	Operating expenses of construction equipment	0.00	0.00
113	Operating expenses of D.G. sets	0.00	0.00
114	Furnishing expenses	226,527.66	55,530.00
115	Subscription to trade and other associations	9,599.00	0.00
117	Visa and entry permit charges	0.00	0.00
118	Tree plantation exp./NTPC Land	0.00	4,500.00
119	Research & development expenses :	968,780.00	0.00
120	Less : Grants received for Research & development expenses	0.00	0.00
121	Sub total (Research & development expenses)	968,780.00	0.00
122	Bank charges	4,864.26	21,952.17
123	Business Development Expenditure	0.00	0.00
124	Surcharge (NVVN)	0.00	0.00
125	Power Trading Expenses	0.00	0.00
126	Brokerage & commission	0.00	0.00
130	Books and periodicals	119,671.00	84,980.00
131	Claims/advances written off	0.00	0.00
132	Stores written off	0.00	0.00
133	Survey &Investigation expenses written off	0.00	0.00
134	Others	14,775,835.40	7,132,555.46
135	**Total**	**16,105,277.32**	**7,416,356.63**
136		0.00	0.00
137		0.00	0.00
138		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 43 TO THE FS--EXPENDITURE DURING CONSTRUCTION PERIOD (NET)

(Amount in ₹)

		31.03.2023	31.03.2022
	For the Year ended	0.00	0.00
001	**EXPENDITURE DURING CONSTRUCTION PERIOD (NET)**		
002	A. Employee benefits expense	0.00	0.00
003	Salaries and wages	0.00	0.00
004	Contribution to provident and other funds	0.00	0.00
005	Unwinding of deferred payroll expenses	0.00	0.00
006	Staff welfare expenses	0.00	0.00
007	Total (A)	0.00	0.00
008	**B. Finance Costs**	0.00	0.00
009	Finance charges on financial liabilities measured at amortised cost		
010	Bonds	0.00	0.00
011	Foreign currency term loans	0.00	0.00
012	Rupee term loans	0.00	0.00
013	Foreign currency bonds/notes	0.00	0.00
014	Unwinding of discount on account of vendor liabilities	0.00	0.00
015	Others	0.00	0.00
016		0.00	0.00
017	Other Borrowings Costs	0.00	0.00
018	Guarantee Commission	0.00	0.00
019	Management Fees/Arrangers Fees	0.00	0.00
020	Commitment charges/Exposure Premium	0.00	0.00
021	Legal Expenses on foreign currency loans	0.00	0.00
022	Foreign currency bonds/notes expenses	0.00	0.00
023	Foreign Credit Insurance Premium	0.00	0.00
024	Upfront Fee	0.00	0.00
025	Exchange Differences	0.00	0.00
026	Others	0.00	0.00
027	Exchange differences regarded as adjustment to interest cost	0.00	0.00
028	**Total (B)**	0.00	0.00
029		0.00	0.00
030	C. Depreciation and amortisation	0.00	0.00
031	**D. Generation , administration and other expenses**		
032	Power charges	0.00	0.00
033	Less: Recovered from contractors & employees	0.00	0.00
034	**Sub-total(Net power charges)**	0.00	0.00
035	Water charges	0.00	0.00
036	Rent	0.00	0.00
037	Repairs & maintenance	0.00	0.00
038	Buildings	0.00	0.00
039	Construction equipment	0.00	0.00
040	Others	0.00	0.00
041		0.00	0.00
042	Insurance		

PAKRI BARWADIH COAL MINE

NOTE NO. 43 TO THE FS--EXPENDITURE DURING CONSTRUCTION PERIOD (NET) (Amount in ₹)

	For the Year ended	31.03.2023	31.03.2022
043	Rates and taxes	0.00	0.00
044	Communication expenses	0.00	0.00
045	Travelling expenses	0.00	0.00
046	Tender expenses	0.00	0.00
047	Less: Income from sale of tenders	0.00	0.00
048	**Sub-total (Net tender expenses)**	**0.00**	**0.00**
049	Advertisement and publicity	0.00	0.00
050	Security expenses	0.00	0.00
051	Entertainment expenses	0.00	0.00
052	Guest house expenses	0.00	0.00
053	Less: Receipt from guest house	0.00	0.00
054	**Sub-total (Net Guest House Expenses)**	**0.00**	**0.00**
055	Education expenses	0.00	0.00
056	Brokerage & Commission	0.00	0.00
057	Books and periodicals	0.00	0.00
058	Community development expenses	0.00	0.00
059	Professional charges and consultancy fee	0.00	0.00
060	Legal expenses	0.00	0.00
061	EDP Hire and other charges	0.00	0.00
062	Printing and stationery	0.00	0.00
063	Miscellaneous expenses	0.00	0.00
064	**Total (D)**	**0.00**	**0.00**
065	**Total (A+B+C+D)**	**0.00**	**0.00**
066	**E. Less: Other Income**	**0.00**	**0.00**
067	Interest from	0.00	0.00
068	Indian banks	0.00	0.00
069	Foreign banks	0.00	0.00
070	Others	0.00	0.00
071	Contractors	0.00	0.00
072	Hire charges	0.00	0.00
073	Sale of scrap	0.00	0.00
074	Exchange Differences	0.00	0.00
075	Miscellaneous income	0.00	0.00
076	**TOTAL (E)**	**0.00**	**0.00**
077	F. Net actuarial gain/loss OCI	0.00	0.00
078		0.00	0.00
079	**GRAND TOTAL (A+B+C+D-E+F)**	**0.00**	**0.00**
080		0.00	0.00
081	*** Balance carried to Capital Work-in-progress - (Note 3)**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 43A TO THE FS--EDC- COAL MINING

(Amount in ₹)

	For the Year ended	31.03.2023	31.03.2022
001	**EDC- Coal Mining**	**0.00**	**0.00**
002	A. Employee benefits expense	0.00	0.00
003	Salaries and wages	15,019,310.35	15,333,294.75
004	Contribution to provident and other funds	1,707,095.38	1,597,635.39
005	Unwinding of deferred payroll expenses	0.00	0.00
006	Staff welfare expenses	1,327,787.22	675,008.64
007	**Total (A)**	**18,054,193.95**	**17,606,038.78**
008	**B. Finance Costs**	**0.00**	**0.00**
009	Finance charges on financial liabilities measured at amortised cost	0.00	0.00
010	Bonds	174,403,920.00	421,142,365.00
011	Foreign currency term loans	0.00	0.00
012	Rupee term loans	196,239,021.00	522,302,269.00
013	Foreign currency bonds/notes	0.00	0.00
014	Unwinding of discount on account of vendor liabilities	0.00	0.00
015	Others	0.00	0.00
016		0.00	0.00
017	Other Borrowings Costs	0.00	0.00
018	Guarantee Commission	0.00	0.00
019	Management Fees/Arrangers Fees	0.00	0.00
020	Commitment charges/Exposure Premium	0.00	0.00
021	Legal Expenses on foreign currency loans	0.00	0.00
022	Foreign currency bonds/notes expenses	0.00	0.00
023	Foreign Credit Insurance Premium	0.00	0.00
024	Upfront Fee	0.00	0.00
025	Exchange Differences	0.00	0.00
026	Others	0.00	0.00
027	Exchange differences regarded as adjustment to interest cost	0.00	0.00
028	**Total (B)**	**370,642,941.00**	**943,444,634.00**
029		0.00	0.00
030	C. Depreciation and amortisation	0.00	0.00
031	**D. Generation , administration and other expenses**	**0.00**	**0.00**
032	Power charges	0.00	0.00
033	Less: Recovered from contractors & employees	0.00	0.00
034	**Sub-total(Net power charges)**	**0.00**	**0.00**
035	Water charges	0.00	0.00
036	Rent	0.00	0.00
037	Repairs & maintenance	0.00	0.00
038	Buildings	0.00	0.00
039	Construction equipment	4,202,656.86	0.00
040	Others	0.00	0.00
041	Cost of Captive Coal	0.00	0.00
042	Insurance	4,507.56	0.00
043	Rates and taxes		

PAKRI BARWADIH COAL MINE

NOTE NO. 43A TO THE FS–EDC- COAL MINING

(Amount in ₹)

	For the Year ended	31.03.2023	31.03.2022
044	Communication expenses	253,554.18	145,080.24
045	Travelling expenses	749,944.59	1,344,770.90
046	Tender expenses	0.00	0.00
047	Less: Income from sale of tenders	0.00	0.00
048	**Sub-total (Net tender expenses)**	**0.00**	**0.00**
049	Advertisement and publicity	0.00	0.00
050	Security expenses	0.00	0.00
051	Entertainment expenses	45,999.99	117,875.00
052	Guest house expenses	0.00	0.00
053	Less: Receipt from guest house	0.00	0.00
054	**Sub-total (Net Guest House Expenses)**	**0.00**	**0.00**
055	Education expenses	0.00	0.00
056	Brokerage & Commission	0.00	0.00
057	Books and periodicals	0.00	0.00
058	Community development expenses	0.00	0.00
059	Professional charges and consultancy fee	970,904.00	0.00
060	Legal expenses	0.00	0.00
061	EDP Hire and other charges	0.00	0.00
062	Printing and stationery	43,966.93	0.00
063	Miscellaneous expenses	514,083.72	576,672.58
064	**Total (D)**	**6,785,616.69**	**2,211,578.92**
065	**Total (A+B+C+D)**	**395,462,751.93**	**963,262,249.70**
066	**E. Less: Other Income**	**0.00**	**0.00**
067	Interest from	0.00	0.00
068	Indian banks	0.00	0.00
069	Foreign banks	0.00	0.00
070	Others	0.00	0.00
071	Contractors	0.00	0.00
072	Hire charges	0.00	0.00
073	Sale of scrap	0.00	0.00
074	Exchange Differences	0.00	0.00
075	Miscellaneous income	3,050.00	2,350.00
076	**TOTAL (E)**	**3,050.00**	**2,350.00**
077	F. Net actuarial gain/loss OCI	-10,155.86	6,473.12
078		0.00	0.00
079	**GRAND TOTAL (A+B+C+D-E+F)**	**395,469,545.77**	**963,266,472.82**
080		0.00	0.00
081	* **Balance carried to Capital Work-in-progress - (Note 3)**	**395,469,545.77**	**963,266,472.82**

PAKRI BARWADIH COAL MINE

NOTE NO. 44-A TO THE FINANCIAL STATEMENTS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
001	Balance sheet	0.00	0.00
002	Freehold land for which conveyancing of the title is awaiting completion of legal formalities	0.00	0.00
003	(a) area (in acres)	501.05	501.05
004	(b) value (in rs)	2,340,259,410.00	2,625,940,960.00
005	Right-of-use land for which execution of lease deed is awaiting completion of legal formalities	0.00	0.00
006	(a) area (in acres)	0.00	0.00
007	(b) value (in rs)	0.00	0.00
008	Right-of-use land acquired on perpetual lease and accordingly not amortised	0.00	0.00
009	(a) area (in acres)	0.00	0.00
010	(b) value (in rs.)	0.00	0.00
011	Land in physical possesession of the company which has not been shown in the books pending settlement of price (in acres)	0.00	0.00
012	Deposit with government authorities towards land in possession of the company included in cost of land which is subject to adjus	0.00	0.00
013	**Land not in possession of the company**	**0.00**	**0.00**
014	(a) area (in acres)	0.00	0.00
015	-Freehold	0.00	0.00
016	-Right of Use	0.00	0.00
017	(b) value (in rs)	0.00	0.00
018	-Freehold	0.00	0.00
019	-Right of Use	0.00	0.00
020	Right-of-use buildings pending completion of legal formalities - value (in rs.)	0.00	0.00
021	Estimated amount of contracts remaining to be executed on capital account and not provided for	0.00	0.00
022	Property, plant & equipment	8,578,277,980.00	7,947,823,322.00
023	Intangible assets	0.00	0.00
024	Details of precommissioning expenditure	0.00	0.00
025	(a) precommissioning expenses	0.00	0.00
026	(b) precommissioning income	0.00	0.00
027	(c) net precommissioning expenditure	0.00	0.00
028		0.00	0.00
029		0.00	0.00
030		0.00	0.00
031	Exchange rate variation taken to revenue during the year (with -ve sign, if favourable)	0.00	0.00
045	Exchange rate variation capitalised during the year (with -ve sign, if favourable)	0.00	0.00
054	Short Term Leases	0.00	0.00
055	A) Rent	0.00	0.00
060	Company lease accommodation - executives	590,279.00	925,037.25
067	Company lease accommodation - directors	0.00	0.00
068	Others	2,240,152.00	2,119,192.80

PAKRI BARWADIH COAL MINE

NOTE NO. 44-A TO THE FINANCIAL STATEMENTS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
099	Total	2,830,431.00	3,044,227.25
101	Borrowing cost capitalised during the year	370,643,961.00	943,444,634.00
102	Revenue grants recognized during the year	0.00	0.00
103	Revenue expenditure on research and development	0.00	0.00
104	Capital expenditure on research and development	0.00	0.00
105	Expenditure on sustainabilty development - capital	0.00	0.00
106	Expenditure on csr- capital	0.00	0.00
107	Opening balance - CSR Liability	0.00	0.00
108	Paid/Adjusted during the Year out of Opening above	0.00	0.00
109	Amount yet to be paid against Cr Year CSR Exp	0.00	0.00
110	Closing Balance CSR- Liability (110)	0.00	0.00
111		0.00	0.00
112		0.00	0.00
113		0.00	0.00
114		0.00	0.00
115	Disclosure under msmed act 2006:	0.00	0.00
116	(i) (a) the principal amount remaining unpaid as at year end	72,667,288.93	62,415,791.31
117	(i) (b) interest due there on remaining unpaid as at Year end	0.00	0.00
118	(ii) the amount of interest paid by the buyer in terms of section 16, along with the amounts of the payment made to the supplier	0.00	0.00
119	(iii) the amount of interest due and payable for the period of delay in making payment(which has been paid but beyond the appoin	0.00	0.00
120	(iv) the amount of interest accrued and remaining unpaid at the end of the year; and	0.00	0.00
121	(v) the amount of further interest remaining due and payable even in the succeeding years, until such date when the interest due	0.00	0.00
122	Amount of inventories recognized as an expense (including fuel)	22,490,358,747.88	15,183,621,814.52
123	Amount of inventories capitalised as overhauling assets out of 122 above	0.00	0.00
124	Amount capitalised as edc out of 122 above	0.00	0.00
133	Value of Imported Material Consumed during the Year	0.00	0.00
134		0.00	0.00
135	Contingent liabilities	0.00	0.00
136	A. Claims against the company not acknowledged as debts in respect of :		
137	(i)Capital works	13,671,079,000.00	4,812,312,825.00
138	(ii)Land compensation cases	2,855,000.00	0.00
139	(iii)Others by state authorities towards:-	0.00	0.00
140	(a) Water royalty / water charges / nala tax	0.00	0.00
141	(b) Diversion of land / building permission fees	0.00	0.00

Locked: 23.04.2023 - 14:07:25
Run on: 23.04.2023 - 14:08:59 Version: 0

1212

Page 2 of 4

PAKRI BARWADIH COAL MINE

NOTE NO. 44-A TO THE FINANCIAL STATEMENTS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
142	(c) Other demands by state authorities	0.00	0.00
143	(iv) Others by fuel companies	0.00	0.00
144	(a) Disputes related to grade slippage third party sampling	0.00	0.00
145	(b) Surface transportation charges on coal	0.00	0.00
146	(c) Take or pay claim - Gas stations	0.00	0.00
147	(d) Other claims by fuel companies not acknowledged as debt	0.00	0.00
149	B Disputed tax demands	0.00	0.00
150	(i) Income tax	0.00	0.00
151	(ii) Excise duty	0.00	0.00
152	(iii) Sales tax	0.00	0.00
153	(iv) Service tax	0.00	0.00
154	(v) Entry tax	0.00	0.00
155	C. Others	567,183,184.00	4,938,332,336.00
156	Total	14,241,199,184.00	0.00
157	D. Possible reimbursement on account of contingent liabilities	0.00	0.00
158	(i) Capital works	0.00	0.00
159	(ii)Land compensation cases	0.00	0.00
160	(iii)Others (by state authorities)	0.00	0.00
161		0.00	0.00
162	(iv) Others by fuel companies	0.00	0.00
163	(v) Disputed income tax demand	0.00	0.00
164	(vi) Disputed tax demands -others	0.00	0.00
165	(vii) Others	0.00	0.00
167	Total	0.00	0.00
168	E AMOUNT PAID UNDER PROTEST/ADJUSTED BY AUTHORITIES - TAX CASES	0.00	0.00
169	F CONTINGENT ASSETS	0.00	0.00
170	Intangible under development : less than 1 year	0.00	38,028,674.44
171	Intangible under development #: 1-2 year	0.00	254,565,564.70
227	Intangible under development #: 2-3 year	0.00	304,246,334.04
777	Intangible under development #: More than 3 years	0.00	0.00
278	Capital-Work-in Progress (CWIP)	2,389,263,555.46	6,978,341,039.68
279	Projects in progress	0.00	0.00
280	Projects temporarily suspended	0.00	0.00
281		0.00	0.00
283		0.00	0.00
283	Projects in progress	1,662,529,650.00	2,060,335,496.83
284	Less than 1 year	32,364,486.73	1,869,877,699.72
285	1-2 years	27,749,053.58	2,740,906,360.37
286	2-3 years	666,700,365.15	107,219,482.76
287	More than 3 years	2,389,263,555.46	6,978,341,039.68
288	Sub Total (I)	0.00	
289			

Locked: 22.04.2023 - 14:07:25
Run on: 22.04.2023 - 14:08:59 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 44-A TO THE FINANCIAL STATEMENTS

(Amount in ₹)

	As at	31.03.2023	31.03.2022
290	**Projects temporarily suspended**	**0.00**	**0.00**
291	Less than 1 year	0.00	0.00
292	1-2 years	0.00	0.00
293	2-3 years	0.00	0.00
294	More than 3 years	0.00	0.00
295	Sub Total (II)	0.00	0.00
296		0.00	0.00
300	Previous year figures have been regrouped/rearranged wherever necessary	0.00	0.00

Audited Financial Statements as on 31.03.2024



PAKRI BARWADIH COAL MINE

BALANCE SHEET

(Amount in ₹)

	As at	Note	31.03.2024	31.03.2023
201	**ASSETS**		**0.00**	**0.00**
202			**0.00**	**0.00**
203	**NON-CURRENT ASSETS**		**0.00**	**0.00**
204	PROPERTY, PLANT & EQUIPMENT	2	41,112,059,123.77	41,393,575,212.32
205	CAPITAL WORK-IN-PROGRESS	3	4,186,377,833.83	2,289,283,050.46
206	INVESTMENT PROPERTY	4	0.00	0.00
207	INTANGIBLE ASSETS	5	14,471,404.85	21,318,296.79
208	INTANGIBLE ASSETS UNDER DEVELOPMENT	6	0.00	0.00
209	**FINANCIAL ASSETS**		**0.00**	**0.00**
210	I) EQUITY INVESTMENTS IN SUBSIDIARIES AND JOINT VENTURES	7	0.00	0.00
211	II) OTHER INVESTMENTS	8	0.00	0.00
212	III) LOANS	9	43,815,222.12	42,837,768.65
213	IV) TRADE RECEIVABLES	10	0.00	0.00
214	V) OTHER FINANCIAL ASSETS	11	542,132,597.22	338,480,750.23
215	OTHER NON-CURRENT ASSETS	12	3,757,002,925.65	3,009,064,291.70
217	**TOTAL NON-CURRENT ASSETS**		**49,686,299,318.44**	**46,533,135,844.75**
218			**0.00**	**0.00**
219	**CURRENT ASSETS**		**0.00**	**0.00**
220	INVENTORIES	13	744,599,328.94	1,509,574,574.31
221	**FINANCIAL ASSETS**		**0.00**	**0.00**
222	I) OTHER INVESTMENTS	14	0.00	0.00
223	II) TRADE RECEIVABLES	15	0.00	0.00
224	III) CASH AND CASH EQUIVALENTS	16	1,887,441.47	7,310,969.24
225	IV) BANK BALANCES OTHER THAN CASH AND CASH EQUIVALENTS	17	0.00	0.00
226	V) LOANS	18	25,805,384.31	23,749,451.34
227	VI) OTHER FINANCIAL ASSETS	19	549,003,857.40	187,253,639.96
228	CURRENT TAX ASSETS (NET)		0.00	0.00
229			0.00	0.00
230	OTHER CURRENT ASSETS	20	4,457,638,988.56	3,152,617,514.49
231			0.00	0.00
232	**TOTAL CURRENT ASSETS**		**5,795,219,007.72**	**4,876,526,149.33**
233	ASSETS HELD FOR SALE	21	0.00	0.00
236	REGULATORY DEFERRAL ACCOUNT DEBIT BALANCES	22	-93,943,332.92	0.00
237	**TOTAL ASSETS**		**55,374,656,985.24**	**51,456,585,994.08**
238	**EQUITY AND LIABILITIES**		**0.00**	**0.00**
239	**EQUITY**		**0.00**	**0.00**
240	EQUITY SHARE CAPITAL	23	0.00	0.00
241	OTHER EQUITY	24	5,962,867,285.85	5,025,965,242.44
244	**TOTAL EQUITY**		**5,962,867,285.85**	**5,025,965,242.44**
245			0.00	0.00
246	**LIABILITIES**		**0.00**	**0.00**
247	**NON-CURRENT LIABILITIES**		**0.00**	**0.00**
248	**FINANCIAL LIABILITIES**		**0.00**	**0.00**
249	II BORROWINGS	25	0.00	0.00

Locked: 28.04.2024 - 20:58:37

Run on: 28.04.2024 - 21:01:52 Version: 0

1216

एनटीपीसी
NTPC

PAKRI BARWADIH COAL MINE

BALANCE SHEET

(Amount in ₹)

	As at	Note	31.03.2024	31.03.2023
250	(i) LEASE LIABILITIES	26	1,713,090,802.01	1,731,982,388.01
251	**(ii) TRADE PAYABLES**		**0.00**	**0.00**
252	- TOTAL OUTSTANDING DUES OF MICRO AND SMALL ENTERPRISES	27	0.00	0.00
253	- TOTAL OUTSTANDING DUES OF CREDITORS OTHER THAN MICRO AND SMALL ENTERPRISES	27	0.00	0.00
254	(v) OTHER FINANCIAL LIABILITIES	28	4,346,732.54	22,071,125.00
255	PROVISIONS	29	5,194,222,294.80	5,824,176,827.00
256	DEFERRED TAX LIABILITIES (NET)	30	0.00	0.00
257	OTHER NON-CURRENT LIABILITIES	31	0.00	0.00
258			**0.00**	**0.00**
259	**TOTAL NON-CURRENT LIABILITIES**		**7,034,259,329.45**	**7,578,238,118.03**
260			**0.00**	**0.00**
261	**CURRENT LIABILITIES**		**0.00**	**0.00**
262	**FINANCIAL LIABILITIES**		**0.00**	**0.00**
263	(i) BORROWINGS	32	0.00	0.00
264	(ii) LEASE LIABILITIES	33	130,472,267.00	187,832,912.00
265	**(iii) TRADE PAYABLES**		**0.00**	**0.00**
266	- TOTAL OUTSTANDING DUES OF MICRO AND SMALL ENTERPRISES	34	42,968,504.47	19,185,153.59
267	- TOTAL OUTSTANDING DUES OF CREDITORS OTHER THAN MICRO AND SMALL ENTERPRISES	34	3,533,002,446.48	2,162,237,567.11
268	(iv) OTHER FINANCIAL LIABILITIES	35	5,253,995,432.53	4,539,838,339.58
269	OTHER CURRENT LIABILITIES	36	940,815,958.22	1,815,837,832.44
270	PROVISIONS	37	54,713,374.24	1,257,747,893.39
271	CURRENT TAX LIABILITIES (NET)	38	0.00	0.00
272			**0.00**	**0.00**
273	**TOTAL CURRENT LIABILITIES**		**9,525,958,982.84**	**9,283,479,698.47**
274			**0.00**	**0.00**
277	DEFERRED REVENUE	39	0.00	0.00
278	REGULATORY DEFERRAL ACCOUNT CREDIT BALANCES	39A	0.00	0.00
279	INTER UNIT ACCOUNTS		31,931,071,256.00	29,579,012,983.14
280			**0.00**	**0.00**
281	**TOTAL EQUITY AND LIABILITIES**		**50,374,830,985.24**	**51,456,695,994.28**
282	Material Accounting Policies as per note 1	1	0.00	0.00
283			0.00	0.00
284	The Accompanying notes 1 to 48A form an integral part of these financial statements.		0.00	0.00
285			**0.00**	**0.00**

Biswanath Agasti Digitally signed by Biswanath Agasti Date: 2024.04.29 14:38:52 +05'30'
(Auditor Initial & Stamp)

GAURAV RASTOGI Digitally signed by GAURAV RASTOGI Date: 2024.04.28 22:12:05 +05'30'
(Head of Finance)

FAIZ TAIYAB Digitally signed by FAIZ TAIYAB Date: 2024.04.29 10:29:03 +05'30'
(Head of Unit)

पवन देव जनता/PAWAN DEV JANTA
उप महाप्रबंधक (वित्त/Dep.)
Dep. Gaurav Manager (Finance)
एन टी पी सी लिमिटेड/NTPC Limited
EDC/A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

STATEMENT OF PROFIT AND LOSS

(Amount in ₹)

	For the Year ended	Note	31.03.2024	31.03.2023
201	**Revenue**		**0.00**	**0.00**
202	Revenue from operations	42	36,309,261,400.62	36,381,019,521.23
203	Other income	41	738,075,657.28	183,004,686.20
205	**Total Income**		**39,107,967,061.10**	**36,564,924,257.23**
207	**Expenses**		**0.00**	**0.00**
208	Fuel including cost of captive coal	42	30,104,888,808.68	23,413,227,321.93
209	Employee benefits expense	43	521,280,029.59	473,961,532.36
210	Electricity purchased for trading		0.00	0.00
211	Finance costs	44	2,403,584,190.62	1,814,495,301.44
212	Depreciation, amortisation and impairment expenses	45	1,045,359,425.87	798,261,789.13
213			0.00	0.00
214	Other expenses	46	2,367,378,766.91	728,766,256.83
215	CC expenses charge to revenue		636,279,336.38	537,861,059.30
216	Less: Unit expenses transferred to CC		0.00	0.00
217	**Total expenses**		**38,050,344,890.17**	**26,728,763,651.44**
220	**Profit before exceptional items & tax**		**1,047,622,161.93**	**3,835,730,405.79**
221	Exceptional items		0.00	0.00
224	**Profit before tax**		**1,047,622,161.93**	**3,835,730,405.79**
227	**Tax expense**		**0.00**	**0.00**
228	Current tax		0.00	0.00
231	Deferred tax		0.00	0.00
234			0.00	0.00
235	**Total Tax expense**		**0.00**	**0.00**
236	**Profit for the period before regulatory deferral account balances**		**1,047,622,161.93**	**3,835,730,405.79**
237	**Movement in regulatory deferral account balances**		**0.00**	**0.00**
238	Regulatory deferred account - deferred		0.00	0.00
239	Others		-62,943,332.52	0.00
240	Tax impact on regulatory deferral account balances		0.00	0.00
241	**Net movement in regulatory deferral account balances (net of tax)**		**-62,943,332.52**	**0.00**
242	**Profit for the period/ year**		**984,678,828.01**	**3,835,730,405.79**
255	**Other comprehensive income**		**0.00**	**0.00**
256	**(A) Items that will not be reclassified to profit or loss**		**0.00**	**0.00**
257	- Net gains/(losses) on fair value of equity instruments through other comprehensive income		0.00	0.00
258	Income tax on above that will not be reclassified to profit or loss		0.00	0.00
259	- Net actuarial gains/(losses) on defined benefit plans		2,223,195.40	-2,916,944.93
260	Income tax on above that will not be reclassified to profit or loss		0.00	0.00
264			0.00	0.00
265	**Other comprehensive income for the year, net of income tax**		**2,223,195.40**	**-2,916,944.93**
270			0.00	0.00
271			0.00	0.00
272	**Total Comprehensive income for the year**		**986,902,024.41**	**3,832,813,460.86**

Locked: 28.04.2024 - 20:58:35

Run on: 28.04.2024 - 21:00:13 Version: 0

1210

PAKRI BARWADIH COAL MINE

STATEMENT OF PROFIT AND LOSS

(Amount in ₹)

For the Year ended	Note	31.03.2024	31.03.2023
		0.00	0.00
Earnings per equity share:		0.00	0.00
Basic & Diluted		0.00	0.00
Material Accounting Policies		0.00	0.00
		0.00	0.00
The accompanying notes 1 to 48 form an integral part of these financial statements.		0.00	0.00

Biswanath Agasti — Digitally signed by Biswanath Agasti, Date: 2024.04.29 14:29:22 +05'30'

(Auditor Initial & Stamp)

GAURAV RASTOGI — Digitally signed by GAURAV RASTOGI, Date: 2024.04.29 22:12:39 +05'30'

(Head of Finance)

FAIZ TAIYAB — Digitally signed by FAIZ TAIYAB, Date: 2024.04.29 10:39:11 +05'30'

(Head of Unit)

Locked: 28.04.2024 - 20:58:35
Run on: 28.04.2024 - 21:03:13 Version: 9

1219

PAKRI BARWADIH COAL MINE

OTHER COMPREHENSIVE INCOME

(Amount in ₹)

	For the Year ended	31.03.2024	31.03.2023
001		0.00	0.00
002	**Other comprehensive income**	**0.00**	**0.00**
003	**(A) Items that will not be reclassified to profit or loss**	**0.00**	**0.00**
004	- Net gains/(losses) on fair value of equity instruments through other comprehensive income	0.00	0.00
005	Income tax on above that will not be reclassified to profit or loss	0.00	0.00
006	- Net actuarial gains/(losses) on defined benefit plans	2,223,195.40	-2,916,944.93
007	Income tax on above that will not be reclassified to profit or loss	0.00	0.00
008		0.00	0.00
009	(B) Items that will be reclassified to profit or loss	0.00	0.00
010	Income tax relating to above items that will be reclassified to profit or loss	0.00	0.00
011		0.00	0.00
012	**Other comprehensive income for the year, net of income tax**	**2,223,195.40**	**-2,916,944.93**
013		0.00	0.00
014	**Total comprehensive income for the year (A+B)**	**2,223,195.40**	**-2,916,944.93**



(Amount in Rupees)

Note forming part of Balance Sheet
NOTE NO. 2 TO THE FS-NCA-PROPERTY, PLANT AND EQUIPMENT
Business Area : 1049

Asset Class	Opening Gross Block As At 01.04.2023	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2024	Opening Depreciation As At 01.04.2023	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2024	Net Block As At 31.03.2024	Net Block As At 31.03.2023
1 TANGIBLE ASSETS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 Land - (including development expenses)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	[illegible]	[illegible]
3 Freehold	[illegible]	[illegible]	0.00	[illegible]	0.00	0.00	0.00	0.00	[illegible]	[illegible]
4 Right of Use	[illegible]	0.00	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
5 Subsequence	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6 Right of use - Coal Bearing Area Land	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
7 Roads,Bridges, culverts & fencings	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
8 Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9 Freehold	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 Main mine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11 Others	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
12 Right of Use	[illegible]	0.00	0.00	[illegible]	[illegible]	0.00	0.00	[illegible]	0.00	0.00
13 Temporary erection	[illegible]	0.00	0.00	[illegible]	[illegible]	0.00	0.00	[illegible]	[illegible]	[illegible]
14 Water Supply, drainage & sewerage system	[illegible]	0.00	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
15 Hydraulic works, barrages, dams, tunnels and canal system (Owned)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16 MGR track and signalling system	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17 Railway siding	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18 Earth work, tunnels	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19 Plant and machinery(including associated civil works) Owned Asset	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] Version : 0 - Status Locked] Date : 30.04.2024]

[illegible]
[illegible] Manager (F)
[illegible]
[illegible] 2/NTPC LIMITED
[illegible]

Note forming part of Balance Sheet
NOTE NO. 2 TO THE FS-NCA-PROPERTY, PLANT AND EQUIPMENT
Business Area :1040

(Amount in Rupees)

Asset Class	Opening Gross Block As At 01.04.2023	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2024	Opening Depreciation As At 01.04.2023	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2024	Net Block As At 31.03.2024	Net Block As At 31.03.2025
20 Plant and machinery/including associated civil works/ Right of use Asset	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21 Furniture and fixtures	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22 Assets under 5 Rth Balance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23 Vehicles including speedboats / helicopter - Owned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24 Vehicles including speedboats / helicopter - Right of Use	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 Office equipment	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26 SSP, WP machines and spacers equipment	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27 Construction equipments	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28 Electrical Installations	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29 Communication equipments	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30 Hospital equipments	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
31 Laboratory and protecting equipments	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
32 Capital expenditure on assets not owned by the Company	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33 Assets of Government	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

पवन देव जमाल/PAWAN DEV JAMIA
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
SOC, A-8A, Sector-24, Noida-201301 (U.P.)

(Amount in Rupees)

Note forming part of Balance Sheet
NOTE NO. 2 TO THE FS-NCA-PROPERTY, PLANT AND EQUIPMENT
Business Area : 1040

Asset Class	Opening Gross Block As At 31.04.2023	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2024	Opening Depreciation As At 31.04.2023	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2024	Net Block As At 31.03.2024	Net Block As At 31.03.2023
14 Land (Gross from Government)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 Land, Recoverable from GSI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16 Assets for ash utilisation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17 (Loans) Adjusted from fly ash utilisation reserve fund	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18 Site Restoration Cost	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
20 Mining Properties	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Grand Total (Tangible)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Grand Total Pres Year (Tangible)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Report Date : 28.08.2024 21:03:24 Variant : 0 Status Lockout Date : 28.08.2024

3

ECC, A-8A, Sector-24, Noida-201301 (U.P.)

Note forming part of Balance Sheet
NOTE NO. 2 TO THE FS-NCA-PROPERTY, PLANT AND EQUIPMENT
Business Area :1040

(Amount in Rupees)

Details of Adjustments of Gross Block and Depreciation/Amortization				
Particulars	Gross Block		Depreciation/Amortization	
	Tangible As At: 31.03.2024	Tangible As At: 31.03.2023	Tangible As At: 31.03.2024	Tangible As At: 31.03.2023
Disposal of assets	(3283975.80)	(188381.90)	(3283975.80)	(188381.90)
Retirement of assets	(10038839.27)	0.00	(9548012.48)	0.00
Cost adjustments	0.00	0.00	0.00	0.00
Assets capitalised with retrospective effect / Write back of excess capitalisation	(322200000.00)	0.00	0.00	0.00
Depreciation on construction equipment capitalised as EDC	0.00	0.00	0.00	0.00
Prior Period Depreciation due to Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Special Depreciation (As per New Policy)	0.00	0.00	0.00	0.00
Transfer to out because of Inter Unit transfers	(224309.90)	(71324.00)	(92655.25)	(57840.21)
Others	0.00	0.00	0.00	0.00
TOTAL	(335746945.77)	(259705.90)	(12925644.32)	(246222.11)

Note - Additions during the year includes capital expenditure towards CSR (in Rs.) 0.00

पवन देव जाखड़/PAWAN DEV JAKHA
[illegible]
[illegible]
[illegible] LIMITED
EDC, A-8A, Sector-2A, Noida-201301 (U.P.)

Note forming part of Balance Sheet

(Amount in Rupees)

NOTE NO. 3 TO THE FS-NCA-CAPITAL WORK-IN-PROGRESS

Business Area: PAKRI BARWADIH COAL MINE

Sl No	Asset Class	As At 01.04.2023	Addition	Deduction/ Adjustment	Capitalized	As At 31.03.2024
	1	2	3	4	5	6
1	CAPITAL WORK-IN-PROGRESS					
2	Development of land		[illegible]	[illegible]		
3	Roads, bridges, culverts & hallpads	[illegible]	[illegible]		[illegible]	[illegible]
4	Piling and foundation					
5	Buildings					
6	Main plant					
7	Others	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	Temporary erection					
9	Water supply, drainage and sewerage system	[illegible]		[illegible]		
10	Hydraulic works, barrages, dams, sunrise and power channel					
11	HSD tank and signalling system					
12	Remote siding		[illegible]			[illegible]
13	Such plant reserves					
14	Plant and equipment	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	Furniture and fixtures					
16	Vehicles					
17	Office equipment					
18	EDP/WP machines & wireless equipment					
19	Construction equipments					
20	Electrical installations	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	Communication equipment	[illegible]				[illegible]
22	Aircraft equipments					
23	Laboratory and workshop equipments					
24	Assets under Debt Scheme of the GDI					
25	Capital expenditure on assets not owned by the company					
26	Expenditure towards development of your owner	[illegible]	[illegible]			[illegible]
27	Survey investigation,Consultancy & Supervision Chg		[illegible]			[illegible]
28	Difference in exchange on foreign currency loans					

Report Date: 09.04.2024 21:08:52 Version: 0 - Status Locked | Date: 1 1

Note forming part of Balance Sheet
NOTE NO. 3 TO THE FS-NCA-CAPITAL WORK-IN-PROGRESS
Business Area: PAKRI BARWADIH COAL MINE

(Amount in Rupees)

Sl No	Asset Class	As At 01.04.2023	Addition	Deduction/ Adjustment	Capitalised	As At 31.03.2024
	1	2	3	4	5	6
29	Expenditure towards Acquisition of Mined Land					
30	Pre-commissioning expenses (net)					
31	Cap/Pend/Disposals as without Project					
32	Expenditure During Construction Period (net)					
33	LESS : Provision for planned works					
34	LESS : Provision for Unamortisable works					
35	Construction stores (As Cost)					
36	Steel		[illegible]	[illegible]		
37	Cement					
38	Others	[illegible]	[illegible]	[illegible]		[illegible]
39	Sub total	[illegible]	[illegible]	[illegible]		[illegible]
40	LESS : Provision for shortages					
41	Sub total	[illegible]	[illegible]	[illegible]		[illegible]
42	Total CWIP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
43						
44						
45	PREVIOUS YEAR TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Note:- Additions during the year includes capital expenditure towards CSR (in Rs.) : 0.00

Report Date : 03.04.2024 21:02:52 Version : 0 - Status Locked : Date : 1 2

पवन देव जगत/PAWAN DEV JAGTA
Deputy General Manager (Cost Officer)
NTPC LIMITED
SOC, A-8A, Sector-24, Noida-201301 (U.P.)

Note forming part of Balance Sheet
NOTE NO. 4 TO THE FS-NCA-INVESTMENT PROPERTY
Business Area :1040

(Amount in Rupees)

Asset Class	Opening Gross Block As At 01.04.2023	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2024	Opening Depreciation As At 01.04.2023	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2024	Net Block As At 31.03.2024	Net Block As At 31.03.2023
INVESTMENT PROPERTY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1. Free Hold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2. ROU Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grand Total (Investment Property)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grand Total Prev Year (Investment Property)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

पवन देव जागरा/PAWAN DEV JAGITA
उप महाप्रबन्धक (सीएसएफ)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Note forming part of Balance Sheet
NOTE NO. 4 TO THE FS-NCA-INVESTMENT PROPERTY
Business Area :1040

(Amount in Rupees)

Details of Adjustments of Gross Block and Depreciation/Amortization				
Particulars	Gross Block		Depreciation/Amortization	
	Investment Property As At: 31.03.2024	Investment Property As At: 31.03.2023	Investment Property As At: 31.03.2024	Investment Property As At: 31.03.2023
Disposal of assets	0.00	0.00	0.00	0.00
Retirement of assets	0.00	0.00	0.00	0.00
Cost adjustments	0.00	0.00	0.00	0.00
Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Depreciation on construction equipment capitalised as EDC	0.00	0.00	0.00	0.00
Prior Period Depreciation due to Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Special Depreciation (As per New Policy)	0.00	0.00	0.00	0.00
Transfer in and because of Inter Unit transfers	0.00	0.00	0.00	0.00
Others	0.00	0.00	0.00	0.00
TOTAL	**0.00**	**0.00**	**0.00**	**0.00**

Note:- Additions during the year includes capital expenditure towards CSR (in Rs.) 0.00

पवन देव जाम्बा/PAWAN DEV JAMTA
[illegible]
[illegible]
[illegible]
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Note forming part of Balance Sheet
NOTE NO. 5 TO THE FS-NCA-INTANGIBLE ASSETS
Business Area :1040

(Amount in Rupees)

Asset Class	Opening Gross Block As At 01.04.2023	Additions	Deductions/ Adjustments	Closing Gross Block As At 31.03.2024	Opening Depreciation As At 01.04.2023	Additions	Deductions/ Adjustments	Closing Depreciation As At 31.03.2024	Net Block As At 31.03.2024	Net Block As At 31.03.2023
INTANGIBLE ASSETS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1. Right to Use Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2. Others	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3. Software	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Grand Total (Intangible)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Grand Total Prior Year (Intangible)	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]

पवन देव जामता/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Dep. / General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

Note forming part of Balance Sheet
NOTE NO. 5 TO THE FS-NCA-INTANGIBLE ASSETS
Business Area :1040

(Amount in Rupees)

Details of Adjustments of Gross Block and Depreciation/Amortization				
Particulars	Gross Block		Depreciation/Amortization	
	InTangible As At: 31.03.2024	InTangible As At: 31.03.2023	InTangible As At: 31.03.2024	InTangible As At: 31.03.2023
Disposal of assets	0.00	0.00	0.00	0.00
Retirement of assets	(2564119.84)	0.00	(2564119.84)	0.00
Cost adjustments	0.00	0.00	0.00	0.00
Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Depreciation on construction equipment capitalised as EDC	0.00	0.00	0.00	0.00
Prior Period Depreciation due to Assets capitalised with retrospective effect / Write back of excess capitalisation	0.00	0.00	0.00	0.00
Special Depreciation (As per New Policy)	0.00	0.00	0.00	0.00
Transfer in /out because of Inter Unit transfers	0.00	0.00	0.00	0.00
Others	0.00	0.00	0.00	0.00
TOTAL	(2564119.84)	0.00	(2564119.84)	0.00

Note : Additions during the year includes capital expenditure towards CSR (in Rs.) : 0.00

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Note forming part of Balance Sheet

(Amount in Rupees)

NOTE NO. 6 TO THE FS-NCA-INTANGIBLE ASSETS UNDER DEVELOPMENT

Business Area: PAKRI BARWADIH COAL MINE

Sl. No.	Asset Class	As At 01.04.2023	Additions	Deductions/ Adjustment	Capitalized	As At 31.03.2024
	1	2	3	4	5	6
1	INTANGIBLE ASSETS UNDER DEVELOPMENT					
2	Software					
3	Right to use Others					
4	Exploration and Evaluation Expenditure - Coal Mine					
5	Capitalizing with in progress					
6	Less: Provision for exploratory wells in progress					
7	Total					
8	PREVIOUS YEAR TOTAL :					

Note:- Additions during the year includes capital expenditure towards CSR (in Rs.) : 0.00

Report Date: 28.04.2024 21:01:08 Version: 0 - Status Locked (Sale :) 1

पवन देव जामाटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EGC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 7 TO THE FS-NCA-EQUITY INVESTMENTS IN SUBSIDIARIES AND JOINT VENTURES (Amount in ₹)

	As at	No. of shares	Face value	31.03.2024	31.03.2023
001	NON CURRENT INVESTMENTS- INVESTMENTS IN SUBSIDIARIES AND JOINT VENTURES			0.00	0.00
002	EQUITY INSTRUMENTS - UNQUOTED-(FULLY PAID UP UNLESS OTHERWISE STATED, AT COST)			0.00	0.00
003	SUBSIDIARY COMPANIES			0.00	0.00
004	PATRATU VIDYUT UTPADAN NIGAM LTD			0.00	0.00
005	NTPC ELECTRIC SUPPLY COMPANY LTD			0.00	0.00
006	NTPC VIDYUT VYAPAR NIGAM LTD			0.00	0.00
007	NABINAGAR POWER GENERATING COMPANY LTD			0.00	0.00
008	KANTI BIJLEE UTPADAN NIGAM LTD			0.00	0.00
009	BHARATIYA RAIL BIJLEE COMPANY LTD			0.00	0.00
010	NTPC MINING LTD (NML)			0.00	0.00
011	THDC INDIA LTD			0.00	0.00
012	NEEPCO LTD			0.00	0.00
013	NTPC SEMC Waste Solutions Pvt Ltd			0.00	0.00
014	NTPC Renewables Energy Ltd			0.00	0.00
015	Ratnagiri Gas & Power Pvt. Limited (RGPPL)			0.00	0.00
016	NTPC Green Energy Limited			0.00	0.00
017	Green Valley Renewable Energy Limited			0.00	0.00
018				0.00	0.00
019				0.00	0.00
020	SUB TOTAL			0.00	0.00
021	JOINT VENTURE COMPANIES			0.00	0.00
022	Utility Powertech Ltd.			0.00	0.00
023	NTPC GE Power Services Pvt Ltd.			0.00	0.00
024	NTPC SAIL Power Company Ltd.			0.00	0.00
025	NTPC Tamil Nadu Energy Company Ltd.			0.00	0.00

DEVI DAS GOPOLI PAWAN DEV JANGA
Chief General Manager (Commercial)
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 7 TO THE FS-NCA-EQUITY INVESTMENTS IN SUBSIDIARIES AND JOINT VENTURES (Amount in ₹)

	As at	No. of shares	Face value	31.03.2024	31.03.2023
060	Ratnagiri Gas & Power Pvt. Limited (RGPPL)			0.00	0.00
061	ARAVALI POWER COMPANY PRIVATE LTD.			0.00	0.00
062	Jhabua Power Ltd.			0.00	0.00
063	NTPC BHEL POWER PROJECTS PRIVATE LTD.			0.00	0.00
064	MEJA URJA NIGAM PRIVATE LIMITED			0.00	0.00
065	BF NTPC ENERGY SYSTEMS LTD.			0.00	0.00
066				0.00	0.00
067	NARMADAR POWER GENERATING COMPANY LTD.			0.00	0.00
068	TRANSFORMER AND ELECTRICAL KERALA LTD.			0.00	0.00
069	NATIONAL HIGH POWER TEST LABORTORY PRIVATE LTD.			0.00	0.00
070				0.00	0.00
071	CIL NTPC URJA PRIVATE LTD.			0.00	0.00
072	ANUSHAKTI VIDHYUT NIGAM LTD.			0.00	0.00
073	ENERGY EFFICIENCY SERVICES LTD.			0.00	0.00
074				0.00	0.00
075	TRINCOMALEE POWER COMPANY LTD.			0.00	0.00
076	BANGLADESH-INDIA FRIENDSHIP POWER COMPANY (PVT.) LTD.			0.00	0.00
077	HINDUSTAN URVARAK & RASAYAN LIMITED			0.00	0.00
078	KONKAN LNG LTD.			0.00	0.00
080	**SUB TOTAL**			**0.00**	**0.00**
109	AGGREGATE AMOUNT OF IMPAIRMENT IN THE VALUE OF INVESTMENTS			0.00	0.00
110	TOTAL (NET OF IMPAIRMENT) OF JV			0.00	0.00
111	**Gross Total of Investments**			**0.00**	**0.00**
114	**Total**			**0.00**	**0.00**
115	Details of Investments			0.00	0.00
116	Aggregate amount of Unquoted Investments			0.00	0.00

पवन देव जामता/PAWAN DEV JAMTA
उप महाप्रबन्धक (सचिवालय)
Dep. Gr. Gunana Manager (Secretariat)
एन टी पी सी लिमिटेड/NTPC LIMITED
SOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 7 TO THE FS-NCA-EQUITY INVESTMENTS IN SUBSIDIARIES AND JOINT VENTURES (Amount in ₹)

	As at	No. of shares	Face value	31.03.2024	31.03.2023
111					
112					
113					
114					
115					
151	Valuation of Investments as per Note 1				
154					
200					
222					

Locked: 28.04.2024 - 20:58:36
Run on: 29.04.2024 - 21:01:20 Version: 0

1234

PAKRI BARWADIH COAL MINE

NOTE NO. 8 TO THE FS-NCA-OTHER INVESTMENTS

(Amount in ₹)

	As at	No. of shares	Face value	31.03.2024	31.03.2023
201	Non-current financial assets (investments)			0.00	0.00
206	Long Term - Trade			0.00	0.00
207	Equity Instruments (fully paid up unless otherwise stated)			0.00	0.00
208	Quoted			0.00	0.00
209	JOINT VENTURE COMPANIES			0.00	0.00
210	PTC India Ltd.			0.00	0.00
212	INTERNATIONAL COAL VENTURES PRIVATE LTD.			0.00	0.00
215	SF-NTPC ENERGY SYSTEMS LTD.			0.00	0.00
106	Jindal Power Limited 8.5% Non-convertible debentures - private placement			0.00	0.00
110	COOPERATIVE SOCIETIES			0.00	0.00
111				0.00	0.00
112	SUB TOTAL			0.00	0.00
113	AGGREGATE AMOUNT OF IMPAIRMENT IN THE VALUE OF INVESTMENTS			0.00	0.00
115	TOTAL			0.00	0.00
120				0.00	0.00
146	NTPC EMPLOYEES CONSUMERS AND THRIFT CO-OPERATIVE SOCIETY LTD. KORBA			0.00	0.00
147	NTPC EMPLOYEES CONSUMERS AND THRIFT COOPERATIVE SOCIETY LTD. KSTPP			0.00	0.00
148	NTPC EMPLOYEES CONSUMERS COOPERATIVE SOCIETY LTD. FARAKKA			0.00	0.00
149	NTPC EMPLOYEES CONSUMERS COOPERATIVE SOCIETY LTD. VINDHYACHAL			0.00	0.00
150	NTPC EMPLOYEES CONSUMERS COOPERATIVE SOCIETY LTD. ANTA			0.00	0.00
151	NTPC EMPLOYEES CONSUMERS COOPERATIVE SOCIETY LTD. KAWAS			0.00	0.00
152	NTPC Employees Consumers Cooperative Society Ltd. Kanthe			0.00	0.00

पवन देव जगत/PAWAN DEV JAMTA
उप महाप्रबंधक एवं कार्यालय
Dep. General Manager & Commanding
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 9 TO THE FS-NCA-LOANS

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**LOANS (NON CURRENT)**	**0.00**	**0.00**
004	RELATED PARTIES	0.00	0.00
005	SECURED	0.00	0.00
006	UN-SECURED	0.00	0.00
007	WITH SIGNIFICANT INCREASE IN CREDIT RISK	0.00	0.00
008	CREDIT IMPAIRED	0.00	0.00
009		0.00	0.00
010	EMPLOYEES(INCLUDING ACCRUED INTEREST)	0.00	0.00
011	SECURED	39,606,030.72	39,597,377.80
012	UNSECURED	16,767,729.13	14,640,925.53
013	WITH SIGNIFICANT INCREASE IN CREDIT RISK	0.00	0.00
014	CREDIT IMPAIRED	0.00	0.00
015	LESS : EMPLOYEE LOANS DISCOUNTING	0.00	0.00
016	SECURED	9,956,925.53	9,194,746.16
017	UNSECURED	2,601,609.20	2,214,888.32
018	LOAN TO STATE GOVERNMENT IN SETTLEMENT OF DUES FROM CUSTOMERS (UNSECURED)	0.00	0.00
019	OTHERS	0.00	0.00
020	SECURED	0.00	0.00
021	UNSECURED	0.00	0.00
022	WITH SIGNIFICANT INCREASE IN CREDIT RISK	0.00	0.00
023	CREDIT IMPAIRED	0.00	0.00
024	LESS: ALLOWANCE FOR CREDIT IMPAIRED LOANS	0.00	0.00
025	**SUB TOTAL**	**43,815,222.12**	**42,627,768.65**
027		0.00	0.00
028	**TOTAL**	**43,815,222.12**	**42,627,768.65**
029		0.00	0.00
030		0.00	0.00
031	**Due from Directors and Officers of the Company**	**0.00**	**0.00**
032	Directors	0.00	0.00
033	Officers	0.00	0.00
034		**0.00**	**0.00**
035	**Loans to related parties include:**	**0.00**	**0.00**
036	i)Key management personel	0.00	0.00
037	ii)Subsidiary companies	0.00	0.00
038	iii)Joint Venture comparies	0.00	0.00
039	iv)Others	0.00	0.00
040		**0.00**	**0.00**
055	Other loans represent loans given to	0.00	0.00
056	a) APHC	0.00	0.00
061		0.00	0.00
062	RPD	0.00	0.00
063	i)Key management personel	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 9 TO THE FS-NCA-LOANS (Amount in ₹)

	As at	31.03.2024	31.03.2023
064	ii)Subsidiary companies	0.00	0.00
065	iii)Joint Venture companies	0.00	0.00
066	iv)Others	0.00	0.00
067	**Total**	**0.00**	**0.00**

पवन देव जमरा/PAWAN DEV JAMTA

PAKRI BARWADIH COAL MINE

NOTE NO. 10 TO THE FS-NCA-TRADE RECEIVABLES

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	Non-current financial assets - Trade receivables	0.00	0.00
002	UNSECURED, CONSIDERED GOOD	0.00	0.00
003	CREDIT IMPAIRED	0.00	0.00
004		0.00	0.00
006	**Total**	**0.00**	**0.00**

पवन देव जमाता/PAWAN DEV JAMTA
उप महाप्रबंधक (कॉर्पोरेट)
Dep. General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 11 TO THE FS-NCA-OTHER FINANCIAL ASSETS (Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**Other Financial Assets (non current)**	**0.00**	**0.00**
002		0.00	0.00
003	**Share application money pending allotment in (Subsidiary Companies) :**	**0.00**	**0.00**
004	NTPC Electric Supply Company Ltd.	0.00	0.00
005	NTPC Vidyut Vyapar Nigam Ltd.	0.00	0.00
006	Nabinagar Power Generating Company Ltd.	0.00	0.00
007	Kanti Bijlee Utpadan Nigam Ltd.	0.00	0.00
008	Bharatiya Rail Bijlee Company Ltd.	0.00	0.00
009	Patratu Vidyut Utpadan Nigam Ltd.	0.00	0.00
010	NTPC Mining Limited	0.00	0.00
011	THDC Ltd.	0.00	0.00
012	NEEPCO Ltd	0.00	0.00
013		0.00	0.00
014	**Total**	**0.00**	**0.00**
015	**Share application money pending allotment (Joint Venture)**	**0.00**	**0.00**
016	Utility Powertech Ltd.	0.00	0.00
017	NTPC GE Power Services Pvt.Ltd.	0.00	0.00
018	NTPC-SAIL Power Company Ltd.	0.00	0.00
019	NTPC-Tamil Nadu Energy Company Ltd.	0.00	0.00
020	Ratnagiri Gas & Power Private Ltd.	0.00	0.00
021	Aravali Power Company Private Ltd.	0.00	0.00
022		0.00	0.00
023	NTPC BHEL Power Projects Private Ltd.	0.00	0.00
024	Meja Urja Nigam Private Limited	0.00	0.00
025	BF-NTPC Energy Systems Ltd.	0.00	0.00
026	Anushakti Vidhyut Nigam Ltd.	0.00	0.00
027	Nabinagar Power Generating Company Ltd.	0.00	0.00
028	Energy Efficiency Services Ltd.	0.00	0.00
029	National High Power Test Laboratory Private Ltd.	0.00	0.00
030		0.00	0.00
031	CIL NTPC Urja Private Ltd.	0.00	0.00
032	Trincomalee Power Company Ltd.	0.00	0.00
033	Hindustan Urvarak & Rasayan Limited	0.00	0.00
034	Bangladesh-India Friendship Power Company Private Ltd.	0.00	0.00
035	**Sub Total**	**0.00**	**0.00**
036		0.00	0.00
037	Claims Recoverable	0.00	0.00
038	Finance Lease Recoverable	0.00	0.00
039	Mine Closure Deposit	542,132,997.22	336,490,750.23
040	Financial Deposit	0.00	0.00
041		0.00	0.00
042	**Total**	**542,132,997.22**	**336,490,750.23**

Locked: 28.04.2024 - 20:58:36
Run on: 28.04.2024 - 21:00:19 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 12 TO THE FS-NCA-OTHER NON-CURRENT ASSETS

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**Other Non-current Assets**	**0.00**	**0.00**
002		**0.00**	**0.00**
003	**CAPITAL ADVANCES**	**0.00**	**0.00**
004	SECURED	0.00	0.00
005	Unsecured	0.00	0.00
006	COVERED BY BANK GUARANTEE	13,577,080.00	101,510,369.00
007	OTHERS	3,107,186,698.16	1,746,778,517.16
008	CONSIDERED DOUBTFUL	0.00	0.00
009	LESS: ALLOWANCE FOR BAD & DOUBTFUL ADVANCES	0.00	0.00
010	**Sub-Total**	**3,120,763,778.16**	**1,848,288,886.16**
011		0.00	0.00
012	Advances other than capital advances	0.00	0.00
013	SECURITY DEPOSITS	10,987,835.00	10,987,835.00
019	Advances to Related parties	0.00	0.00
022	**Advances to Contractors & Suppliers**	**0.00**	**0.00**
023	SECURED	0.00	0.00
024	UNSECURED	0.00	0.00
025	CONSIDERED DOUBTFUL	0.00	0.00
026	LESS: ALLOWANCE FOR BAD & DOUBTFUL ADVANCES	0.00	0.00
027	**Sub Total**	**10,987,835.00**	**10,987,835.00**
028	RECEIVABLE FROM MCP ESCROW A/C	542,132,997.22	336,468,160.74
029	Pre Paid expenses	0.00	0.00
039	ADVANCE TAX & TAX DEDUCTED AT SOURCE	75,138,121.21	2,848,282.21
040	LESS:- PROVISION FOR CURRENT TAX	0.00	0.00
041		0.00	0.00
042	**Sub Total**	**617,271,118.43**	**339,316,442.95**
043	DEFERRED PAYROLL EXPENSES (SECURED)	6,884,342.43	6,473,632.74
044	DEFERRED PAYROLL EXPENSES (UNSECURED)	1,695,855.63	1,617,494.85
045	**Sub Total**	**8,580,198.06**	**8,091,127.59**
046	DEFERRED FOREIGN CURRENCY FLUCTUATION ASSET	0.00	0.00
049		0.00	0.00
050	**Total**	**3,757,602,929.65**	**2,206,684,291.70**
051		0.00	0.00
052		0.00	0.00
062	Advances include amount due from the following Private Companies in which Directors of the Company are also Directors in such Companies	0.00	0.00
064		0.00	0.00
065	NTPC GE Power Services Pvt.Ltd.	0.00	0.00
066		0.00	0.00
067	Ratnagiri Gas & Power Private Ltd.	0.00	0.00
068	Aravali Power Company Private Ltd.	0.00	0.00
069	NTPC-SCCL Global Ventures Private Ltd.	0.00	0.00

Locked: 28.04.2024 - 20:58:38

Run on: 28.04.2024 - 21:00:23 Version: 0

1240

पवन देव जागरा/PAWAN DEV JAMTA

Dep. General Manager, NTPC LIMITED

EOC, A-8A, Sector-24, Noida 201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 12 TO THE FS-NCA-OTHER NON-CURRENT ASSETS (Amount in ₹)

	As at	31.03.2024	31.03.2023
070	NTPC BHEL Power Projects Private Ltd	0.00	0.00
071	Meja Urja Nigam Private Limited	0.00	0.00
072	Nabinagar Power Generating Company Ltd.	0.00	0.00
073	National High Power Test Laboratory Private Ltd.	0.00	0.00
075	CIL NTPC Urja Private Ltd.	0.00	0.00
077		0.00	0.00
078	**Related Party (Adv)**	**0.00**	**0.00**
079	Key Management personel	0.00	0.00
080	Subsidiary companies	0.00	0.00
081	Joint Venture companies	0.00	0.00
082	Contractors	0.00	0.00
083	Others	0.00	0.00
085		0.00	0.00
086	**Total**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 13 TO THE FS-CA-INVENTORIES

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**INVENTORIES**	**0.00**	**0.00**
002		**0.00**	**0.00**
003	Coal	488,344,244.04	1,273,133,640.98
004	Fuel oil	0.00	0.00
005	Naphtha	0.00	0.00
006	Stores and spares	104,259,308.91	23,469,462.12
007	Chemicals & consumables	10,147,737.16	5,300,814.38
008	Loose tools	0.00	0.00
009	Others	141,848,038.86	203,670,656.83
010		0.00	0.00
011		0.00	0.00
012	**Sub Total**	**744,599,328.98**	**1,505,574,574.31**
013	Less: Provision for shortages	0.00	0.00
014	Less: Provision for obsolete/ unserviceable/diminution in value of surplus inventory	0.00	0.00
016		0.00	0.00
017	**Total**	**744,599,328.98**	**1,505,574,574.31**
018	**Inventories include material in transit**	**0.00**	**0.00**
019	Coal	0.00	0.00
020	Fuel oil	0.00	0.00
021	Naphtha	0.00	0.00
022	Stores and spares	0.00	0.00
023	Chemicals & consumables	0.00	0.00
024	Loose tools	0.00	0.00
025	Others	0.00	0.00
026		**0.00**	**0.00**
028		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 14 TO THE FS-CA-OTHER INVESTMENTS

(Amount in ₹)

	As at	No. of shares	Face value	31.03.2024	31.03.2023
001	**CURRENT INVESTMENTS**			**0.00**	**0.00**
002	**(Valuation as per Note 1)**			**0.00**	**0.00**
003	Jindal Power Limited-8.5% Non-convertible debentures - private placement			0.00	0.00
023	Investment in Mutual Funds (Details as under)			0.00	0.00
024	SBI-Magnum Insta Cash Fund-DDR			0.00	0.00
025	SBI Premier Liquid Fund Super-IP-DDR			0.00	0.00
026	SBI SHF Ultra Short Term Fund-IP-DDR			0.00	0.00
027	UTI Money Market -IP-Direct-Growth			0.00	0.00
028	IDBI Liquid plan- Direct-Growth			0.00	0.00
029	Canara Robeco Liquid Fund Super-IP-DDR			0.00	0.00
040	Canara Robeco Treasury Advantage Fund-Super-IP-DDR			0.00	0.00
041	ICICI Liquid Fund DDR			0.00	0.00
042	SBI Premier Liquid fund-Direct DDR (Adv. Fund)			0.00	0.00
043	UTI Liquid CashPlan - IP - DDR (Adv Funds)			0.00	0.00
044	DBI Liquid Fund - DDR - (Adv Funds)			0.00	0.00
045	Baroda Liquid Fund - Direct - Growth			0.00	0.00
046				0.00	0.00
047				0.00	0.00
048	**Sub Total**			**0.00**	**0.00**
049				**0.00**	**0.00**
050	**Unquoted Investments**			**0.00**	**0.00**
054				0.00	0.00
055	**TOTAL**			**0.00**	**0.00**
057				0.00	0.00

पवन देव जमुआ/PAWAN DEV JAMUA

PAKRI BARWADIH COAL MINE

NOTE NO. 15 TO THE FS-CA-TRADE RECEIVABLES

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**TRADE RECEIVABLES (current)***	**0.00**	**0.00**
002		0.00	0.00
003	Secured,Considered Good	0.00	0.00
004	Unsecured , considered good	0.00	0.00
005	Credit impaired	0.00	0.00
006	Unbilled Revenue	0.00	0.00
007	**Sub-Total**	**0.00**	**0.00**
008	**Total**	**0.00**	**0.00**
009	Less: Allowance for credit impaired receivables	0.00	0.00
010	**Total**	**0.00**	**0.00**
012	Less: Discom Clearing	0.00	0.00
014		0.00	0.00
015	**Grand Total**	**0.00**	**0.00**
016	Other Unsecured	0.00	0.00
017	Long-term trade receivables	0.00	0.00
018	TCS Clearing	0.00	0.00
019	Discom Clearing	0.00	0.00
228	**Trade Receivable**	**0.00**	**0.00**
230	Not due	0.00	0.00
231	Due	0.00	0.00
232	(i) Undisputed Trade receivables # considered good	0.00	0.00
233	(ii) Undisputed Trade Receivables # which have significant increase in credit risk	0.00	0.00
234	(iii) Undisputed Trade Receivables # credit impaired	0.00	0.00
235	(iv) Disputed Trade Receivables#considered good	0.00	0.00
236	(v) Disputed Trade Receivables # which have significant increase in credit risk	0.00	0.00
237	(vi) Disputed Trade Receivables # credit impaired	0.00	0.00
238	Unbilled	0.00	0.00
239	**Total**	**0.00**	**0.00**
240		0.00	0.00
241	**(i) Undisputed Trade receivables # considered good**	**0.00**	**0.00**
242	Less than 6 months	0.00	0.00
243	6 months -1 year	0.00	0.00
244	1-2 years	0.00	0.00
245	2-3 years	0.00	0.00
246	More than 3 years	0.00	0.00
247	**Sub Total (i)**	**0.00**	**0.00**
248	**(ii) Undisputed Trade Receivables # which have significant increase in credit risk**	**0.00**	**0.00**
249	Less than 6 months	0.00	0.00
250	6 months -1 year	0.00	0.00
251	1-2 years	0.00	0.00
252	2-3 years	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 15 TO THE FS-CA-TRADE RECEIVABLES

(Amount in ₹)

	As at	31.03.2024	31.03.2023
253	More than 3 years	0.00	0.00
254	**Sub Total (II)**	**0.00**	**0.00**
255	**(iii) Undisputed Trade Receivables -credit impaired**	**0.00**	**0.00**
256	Less than 6 months	0.00	0.00
257	6 months -1 year	0.00	0.00
258	1-2 years	0.00	0.00
259	2-3 years	0.00	0.00
260	More than 3 years	0.00	0.00
261	**Sub Total (III)**	**0.00**	**0.00**
262		0.00	0.00
263	**(iv) Disputed Trade Receivables#considered good**	**0.00**	**0.00**
264	Less than 6 months	0.00	0.00
265	6 months -1 year	0.00	0.00
266	1-2 years	0.00	0.00
267	2-3 years	0.00	0.00
268	More than 3 years	0.00	0.00
269	**Sub Total (IV)**	**0.00**	**0.00**
270	**(v) Disputed Trade Receivables # which have significant increase in credit risk**	**0.00**	**0.00**
271	Less than 6 months	0.00	0.00
272	6 months -1 year	0.00	0.00
273	1-2 years	0.00	0.00
274	2-3 years	0.00	0.00
275	More than 3 years	0.00	0.00
276	**Sub Total (V)**	**0.00**	**0.00**
277	**(vi) Disputed Trade Receivables # credit impaired**	**0.00**	**0.00**
278	Less than 6 months	0.00	0.00
279	6 months -1 year	0.00	0.00
280	1-2 years	0.00	0.00
281	2-3 years	0.00	0.00
282	More than 3 years	0.00	0.00
283	**Sub Total (VI)**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 16 TO THE FS-CA-CASH AND CASH EQUIVALENTS

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**CASH & BANK BALANCES**	**0.00**	**0.00**
002	**Cash & Cash Equivalents**	**0.00**	**0.00**
003	Balances with Banks	1,667,441.47	7,310,969.24
004	Cheques & Drafts on hand	0.00	0.00
005	Cash on hand	0.00	0.00
006	Others (stamps in hand)	0.00	0.00
007	Bank deposits with original maturity upto three months	0.00	0.00
008	Balances with RBI	0.00	0.00
009		0.00	0.00
011	**Total**	**1,667,441.47**	**7,310,969.24**

PAKRI BARWADIH COAL MINE

NOTE NO. 17 TO THE FS-CA-BANK BALANCES OTHER THAN CASH AND CASH EQUIVALENTS **(Amount in ₹)**

	As at	31.03.2024	31.03.2023
001	**Other Bank Balances**	**0.00**	**0.00**
002	Deposits with original maturity of more than three months but not more than twelve months	0.00	0.00
003	Earmarked balances with banks*	0.00	0.00
004	**SubTotal**	**0.00**	**0.00**
005	Interest accrued on deposits	0.00	0.00
006		0.00	0.00
008	**Total**	**0.00**	**0.00**
009		0.00	0.00
010	**Earmarked balances with banks consist of :**	**0.00**	**0.00**
011	Unpaid dividend account balance	0.00	0.00
012	Towards public deposit repayment reserve	0.00	0.00
013	Towards redemption of bonds due for repayment within one year	0.00	0.00
014	Security with Government/other authorities	0.00	0.00
015	Unpaid refund/interest account balance - Tax free bonds/ Bonus Debentures	0.00	0.00
016	Earmarked for RGGVY/DDUGJY/SAUBHAGYA Fund/RDSS	0.00	0.00
017	Earmarked for Flyash Utilisation Reserve Fund	0.00	0.00
018	Deposits with original maturity upto three months as per court orders	0.00	0.00
019	Payment Security Scheme of MNRE NSM (NTPC)	0.00	0.00
020	Payment Security Scheme of MNRE NSM (NVVN)	0.00	0.00
021	Enforcement Directorate of Solar Plant(NVVN)	0.00	0.00
022	Bank guarantee Fund of MNRE (NVVN)	0.00	0.00
023	Others	0.00	0.00
024	Margin Money	0.00	0.00
025		0.00	0.00
026		0.00	0.00
027		0.00	0.00
031	**Total**	**0.00**	**0.00**
032		0.00	0.00
033	Bank deposits with original maturity of less than three months- other than earmarked	0.00	0.00
034	Bank deposits with original maturity of more than three months but not more than twelve months- other than earmarked	0.00	0.00
035	Earmarked bank balances (current account)	0.00	0.00



PAKRI BARWADIH COAL MINE

NOTE NO. 18 TO THE FS-CA-LOANS (Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**Current financial assets - Loans**	**0.00**	**0.00**
002	**Loans (current)-including interest accrued**	**0.00**	**0.00**
004	**Related Parties**	**0.00**	**0.00**
005	Secured	0.00	0.00
006	Un-Secured	0.00	0.00
007	With significant increase in Credit Risk	0.00	0.00
008	Credit impaired	0.00	0.00
009		**0.00**	**0.00**
010	**Employees**	**0.00**	**0.00**
011	Secured	8,161,623.60	8,095,425.79
012	Unsecured	17,638,760.71	15,094,025.55
013	With significant increase in Credit Risk	0.00	0.00
014	Credit impaired	0.00	0.00
015	Less : Employee Loans Discounting	0.00	0.00
016	**Loan to State Government in settlement of dues from customers (Unsecured)**	**0.00**	**0.00**
017		0.00	0.00
018	**Others**	**0.00**	**0.00**
019	Secured	0.00	0.00
020	Unsecured	0.00	0.00
021	With significant increase in Credit Risk	0.00	0.00
022	Credit impaired	0.00	0.00
023		**0.00**	**0.00**
024	Less: Allowance for credit impaired loans	0.00	0.00
026		0.00	0.00
027	**Total (Loans)**	**25,800,384.31**	**23,789,451.34**
028		**0.00**	**0.00**
029	**Due from Directors and Officers of the Company**	**0.00**	**0.00**
030	Directors	0.00	0.00
031	Officers	0.00	0.00
032		**0.00**	**0.00**
033	**Loans to related parties include:**	**0.00**	**0.00**
034	i)Key management personel	0.00	0.00
035	ii)Subsidiary companies	0.00	0.00
036	KBUNL	0.00	0.00
037	RGPPL	0.00	0.00
038	NVVN	0.00	0.00
039	iii)Joint Venture companies	0.00	0.00
040	iv)others	0.00	0.00
041		0.00	0.00
060	RPD	0.00	0.00
061	i)Key management personel	0.00	0.00
062	ii)Subsidiary companies	0.00	0.00
063	iii)Joint Venture companies	0.00	0.00
064	iv)Others	0.00	0.00
065		0.00	0.00

Deputy General Manager / NTPC LIMITED
EGC A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 18 TO THE FS-CA-LOANS

(Amount in ₹)

	As at	31.03.2024	31.03.2023
366	Total	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 19 TO THE FS-CA-OTHER FINANCIAL ASSETS

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**Other Financial Assets (current)**	**0.00**	**0.00**
002		0.00	0.00
003	**ADVANCES**	**0.00**	**0.00**
004		**0.00**	**0.00**
005	**Related Parties**	**0.00**	**0.00**
006	Secured	0.00	0.00
007	Un-Secured	-6,283,641.02	-387,803.48
008	Considered doubtful	0.00	0.00
009		**0.00**	**0.00**
010	**Employees**	**0.00**	**0.00**
012	Unsecured	637,470.00	1,984,966.00
013	Considered Doubtful	0.00	0.00
014		**0.00**	**0.00**
020	**Others**	**0.00**	**0.00**
021	Secured	0.00	0.00
022	Unsecured	0.00	0.00
023	Considered Doubtful	0.00	0.00
024		**0.00**	**0.00**
025	Less: Allowance for bad & doubtful advances	0.00	0.00
026		**0.00**	**0.00**
033	**Total (Advances)**	**-5,446,171.02**	**1,597,362.52**
044		**0.00**	**0.00**
045	**Claims Recoverable**	**0.00**	**0.00**
046	Secured	0.00	0.00
047	Unsecured, considered good	0.00	0.00
048	Considered Doubtful	0.00	0.00
049	Less:- Allowance for doubtful claims	0.00	0.00
050	Others-Claims Recoverable	0.00	0.00
051		**0.00**	**0.00**
052	Contract Asset- Revenue	0.00	0.00
053	Hedging real recoverable from beneficiaries	0.00	0.00
054	Derivative MTM Asset	0.00	0.00
055	Finance Lease Receivable	0.00	0.00
056	Mine Closure Deposit	174,842,528.52	185,518,277.54
057	Financial Deposit	0.00	0.00
059	**Other Accrued Income**	**0.00**	**0.00**
060	Secured Considered Good	0.00	0.00
061	Unsecured , considered good	107,499.90	117,999.90
062	Credit impaired	0.00	0.00
063		0.00	0.00
064	**Sub-Total**	**107,499.90**	**117,999.90**
065	Less: Allowance for credit impaired receivables	0.00	0.00
066	**Total**	**107,499.90**	**117,999.90**
067		0.00	0.00
068	Others*	0.00	0.00
070		0.00	0.00

Locked: 28.04.2024 - 20:58:37

Run on: 28.04.2024 - 21:00:32 Version: 0

पवन देव जामटा/PAWAN DEV JAMTA

Dep. - / General Manager (Mining)

एन टी पी सी लिमिटेड/NTPC LIMITED

EOC, A-8A, Sector-24, Noida-201301 (UP)

PAKRI BARWADIH COAL MINE

NOTE NO. 19 TO THE FS-CA-OTHER FINANCIAL ASSETS

(Amount in ₹)

	As at	31.03.2024	31.03.2023
071	**Total**	**169,503,857.40**	**187,233,639.96**
072	* Other include amount recoverable from contractors and other parties towards hire charges, rent/electricity etc.	0.00	0.00
073	**Advances to related parties include:**	**0.00**	**0.00**
074	i)Key management personel	0.00	0.00
075		0.00	0.00
076	ii)Joint Venture companies	0.00	0.00
077		0.00	0.00
078	v)Others	0.00	0.00
079		**0.00**	**0.00**
080	Advances include amount due from the following Private Companies in which Directors of the Company are also Directors in such Companies	0.00	0.00
081	Related Party (Adv)- Employee	0.00	0.00
082	Related Party (Adv)- Subsidiaries	-6,283,641.02	-387,603.48
083	Related Party (Adv)- Joint Ventures	0.00	0.00
084		0.00	0.00
085	Related Party (Adv)- Others	0.00	0.00
086		0.00	0.00
099		0.00	0.00
100		0.00	0.00
101	**Total**	**-6,283,641.02**	**-387,603.48**



PAKRI BARWADIH COAL MINE

NOTE NO. 28 TO THE FS-CA-OTHER CURRENT ASSETS

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**OTHER CURRENT ASSETS**	**0.00**	**0.00**
002	Security Deposits (Unsecured)	0.00	0.00
003	Deposit with Customs, port trust & others*	3,146,519,906.00	2,515,302,302.00
004	**ADVANCES**	**0.00**	**0.00**
005		**0.00**	**0.00**
006	**Related Parties**	**0.00**	**0.00**
007	Secured	0.00	0.00
008	Un-Secured	0.00	0.00
009	Considered doubtful	0.00	0.00
010		**0.00**	**0.00**
011	**Employees(including imprest)**	**0.00**	**0.00**
012	Secured	0.00	0.00
013	Unsecured	892,996.49	269,190.00
014	Considered Doubtful	0.00	0.00
015		**0.00**	**0.00**
016	**Contractors & Suppliers**	**0.00**	**0.00**
017	Secured	0.00	0.00
018	Unsecured	594,032,270.00	431,266,794.00
019	Considered Doubtful	0.00	0.00
020		0.00	0.00
021	**Others****	**0.00**	**0.00**
022	Secured	0.00	0.00
023	Unsecured	3,091,073.00	16,490,903.00
024	Considered Doubtful	0.00	0.00
025	Less: Allowance for bad & doubtful advances	0.00	0.00
026	Receivable from MCP Escrow A/c	174,842,928.52	185,540,867.03
027	Deferred Payroll Expenses (Secured)	793,252.53	662,549.73
028	Deferred Payroll Expenses (Unsecured)	1,285,920.62	1,084,908.72
029	**Sub-total**	**2,079,173.15**	**1,747,458.45**
030	**Interest accrued on :**	**0.00**	**0.00**
031	Advances to contractors	0.00	0.00
032		**0.00**	**0.00**
033	**Claims Recoverable**	**0.00**	**0.00**
034	Secured	0.00	0.00
035	Unsecured, considered good	936,181,045.40	0.00
036	Considered Doubtful	0.00	0.00
037	Less:- Allowance for doubtful claims	0.00	0.00
038		**0.00**	**0.00**
039	Deferred premium on forward exchange contract/ Option Assets	0.00	0.00
041		0.00	0.00
042	Others	0.00	0.00
043		0.00	0.00
045	**Total (Other Current Assets)**	**4,857,638,995.56**	**3,152,617,514.48**
046	**Include Prepaid Expenses	0.00	19,334,700.00
047	*Includes sales tax/Entry tax/VAT deposited under protest with Sales Tax Authorities	0.00	0.00

Locked: 28.04.2024 - 20:58:37

Run on: 28.04.2024 - 21:00:34 Version: 0

1252

PAKRI BARWADIH COAL MINE

NOTE NO. 20 TO THE FS-CA-OTHER CURRENT ASSETS

(Amount in ₹)

	As at	31.03.2024	31.03.2023
048	*Includes deposited with courts	3,134,391,526.00	2,515,302,302.00
049	*Includes deposited with LIC for annuity payments	0.00	0.00
050	* Includes deposits with WRD / against BG in r/o finance lease	0.00	0.00
051	Other include amount recoverable from contractors and other parties towards hire charges, rent/electricity etc.	0.00	0.00
053	**Advances to related parties include:**	**0.00**	**0.00**
054	i)Key management personel	0.00	0.00
055	ii)Subsidiary companies	0.00	0.00
056	iii)Joint Venture companies	0.00	0.00
057	Contractors	0.00	0.00
058	Others	0.00	0.00
059		0.00	0.00
060	Advances include amount due from the following Private Companies in which Directors of the Company are also Directors in such Companies	0.00	0.00
061		**0.00**	**0.00**
062		0.00	0.00
063	Related Party (Adv)- Employee	0.00	0.00
064	Related Party (Adv)- Subsidiaries	0.00	0.00
065	Related Party (Adv)- Joint Venture	0.00	0.00
066		0.00	0.00
067		0.00	0.00
068	**Total**	**0.00**	**0.00**
069		0.00	0.00

पवन देव जनता/PAWAN DEV JANTA
उप महाप्रबंधक (वित्तीय नियंत्रण)
Dep. Ltd General Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
ECC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 21 TO THE FS-ASSETS HELD FOR SALE

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**ASSET HELD FOR SALE**	**0.00**	**0.00**
002		0.00	0.00
003	Assets held for Sale	0.00	0.00
004		0.00	0.00
005	**Total**	**0.00**	**0.00**
031		0.00	0.00
032	**Assets held for sale includes:-**	**0.00**	**0.00**
033		0.00	0.00
034	Land	0.00	0.00
035	Building	0.00	0.00
036	Plant and equipment	0.00	0.00
037	Other assets	0.00	0.00
038	**Total**	**0.00**	**0.00**
039		0.00	0.00
040		0.00	0.00
041		0.00	0.00
042		0.00	0.00
043		0.00	0.00

पवन देव जामटा/PAWAN DEV JAMTA
उप महाप्रबन्धक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 22 TO THE FS--REGULATORY DEFERRAL ACCOUNT DEBIT BALANCES (Amount in ₹)

	As at	31.03.2024	31.03.2023
001	On account of Exchange Differences	-92,943,332.92	0.00
002	On account of employee benefit exp	0.00	0.00
003	Regulatory deferred account - deferred	0.00	0.00
004	Deferred asset for ash transportation	0.00	0.00
005	Deferred asset for Arbitration Award	0.00	0.00
006		0.00	0.00
009	**Total**	**-92,943,332.92**	**0.00**

पवन देव जमुआ/PAWAN DEV JAMUA
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
ईडीसी, ए.बी.ए., सेक्टर-24, नोएडा-201301 (उ.प्र.)
EDC, A.B.A., Sector-24, Noida-201301 (U.P.)

Locked: 28.04.2024 - 20:58:36
Run on: 28.04.2024 - 21:00:37 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 23 TO THE FS-EQUITY-EQUITY SHARE CAPITAL

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**SHARE CAPITAL**	**0.00**	**0.00**
002	**Equity Share Capital**	**0.00**	**0.00**
003	**Authorised**	**0.00**	**0.00**
004	16,60,00,00,000 equity shares of Rs.10/- each (Previous year 10,000,000,000 equity shares of Rs.10/- each)	0.00	0.00
005	**Issued,Subscribed and fully Paid-up**	**0.00**	**0.00**
006	9,69,66,66,134 equity shares of Rs.10/- (Pv. Year 9,994,557,280 equity shares of Rs.10/- each)	0.00	0.00
007		**0.00**	**0.00**
008	**Total**	**0.00**	**0.00**
009	During FY 2018-19, the company has issued 1,649,092,880 equity shares of Rs.10/- each as fully paid bonus shares	0.00	0.00
010	The holders of the equity shares are entitled to receive dividends as declared from time to time, and are entitled to one vote per share at meetings of the company.	0.00	0.00
011	Details of shareholders holding more than 5% shares in the company	0.00	0.00
012	- President of India	0.00	0.00
013	No. of Shares	0.00	0.00
014	% of holding	0.00	0.00
015	- Life Insurance Corporation of India/ICICI Prudential Mutual Fund	0.00	0.00
016	No. of Shares	0.00	0.00
017	% of holding	0.00	0.00

पवन देव जायसी/PAWAN DEV JAISTA
उप महाप्रबंधक (वि.सं.)
Deputy General Manager (Fin. Ser.)
एन टी पी सी लिमिटेड / NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 24 TO THE FS-EQUITY-OTHER EQUITY (Amount in ₹)

	As at	31.03.2024	31.03.2023
001	RESERVE AND SURPLUS	0.00	0.00
002		**0.00**	**0.00**
003	**Capital Reserve**	**0.00**	**0.00**
004	As per last financial statements	0.00	0.00
006	Add : Grants received during the year	0.00	0.00
007	Add: Transfer from Surplus	0.00	0.00
008	Less: Write back during the year/period	0.00	0.00
009	Less: Adjustments during the year/period	0.00	0.00
010	**SUB-TOTAL**	**0.00**	**0.00**
011		0.00	0.00
017		0.00	0.00
018	**SECURITIES PREMIUM ACCOUNT**	**0.00**	**0.00**
019	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
020	ADD: ADDITIONS DURING THE YEAR/PERIOD	0.00	0.00
021	LESS: ADJUSTMENTS DURING THE YEAR/PERIOD	0.00	0.00
022	**SUB-TOTAL**	**0.00**	**0.00**
023	**BONDS REDEMPTION RESERVE**	**0.00**	**0.00**
024	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
025	ADD: TRANSFER FROM SURPLUS	0.00	0.00
026	LESS: TRANSFER TO SURPLUS ON REDEMPTION	0.00	0.00
027	LESS: ADJUSTMENTS DURING THE YEAR/ PERIOD	0.00	0.00
028	**SUB-TOTAL**	**0.00**	**0.00**
029	**CAPITAL REDEMPTION RESERVE**	**0.00**	**0.00**
030	As per last financial statements	0.00	0.00
031	Add: Transfer from Surplus	0.00	0.00
032	Less: Transfer to surplus on redemption	0.00	0.00
033	Less: Adjustments during the year/ period	0.00	0.00
034	**Sub-Total**	**0.00**	**0.00**
035	**Share Application money pending Allotment**	**0.00**	**0.00**
036	As per last financial statements	0.00	0.00
037	Add: Addition during the year	0.00	0.00
038	Less: Utilised for allotment during the year	0.00	0.00
039	Less: Adjustments during the year/ period	0.00	0.00
040	**SUB-TOTAL**	**0.00**	**0.00**
046	**FLY-ASH UTILISATION RESERVE FUND**	**0.00**	**0.00**
047	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
048	TRANSFERRED TO CC	0.00	0.00
049	ADD:TRANSFER FROM REVENUE FROM OPERATIONS	0.00	0.00
050	ADD:TRANSFER FROM OTHER INCOME	0.00	0.00
051	LESS: UTILISED DURING THE YEAR	0.00	0.00
052	TANGIBLE ASSETS	0.00	0.00
053	EMPLOYEE BENEFIT EXPENSES	0.00	0.00
054	GENERATION,ADMN. AND OTHER EXPENSES	0.00	0.00

Locked: 28.04.2024 - 20:58:36
Run on: 28.04.2024 - 21:00:39 Version: 0

1257

PAKRI BARWADIH COAL MINE

NOTE NO. 24 TO THE FS-EQUITY-OTHER EQUITY

(Amount in ₹)

	As at	31.03.2024	31.03.2023
055	TAX EXPENSES	0.00	0.00
056	**SUB-TOTAL**	**0.00**	**0.00**
057	Self Insurance Reserve	0.00	0.00
058	As per last financial statements	0.00	0.00
059	Add: Addition during the year	0.00	0.00
060	Less: Utilized for allotment during the year	0.00	0.00
061	Less: Adjustments during the year/ period	0.00	0.00
062	SUB-TOTAL	0.00	0.00
063	**SPECIAL ALLOWANCE RESERVE FUND**	**0.00**	**0.00**
064	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
065	ADD: ADDITION DURING THE YEAR	0.00	0.00
066	LESS: UTLISED FOR ALLOTMENT DURING THE YEAR	0.00	0.00
067	LESS: ADJUSTMENTS DURING THE YEAR/ PERIOD	0.00	0.00
068	**SUB-TOTAL**	**0.00**	**0.00**
069	**CORPORATE SOCIAL RESPONSIBILITY (CSR) RESERVE**	**0.00**	**0.00**
070	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
071	ADD : TRANSFER FROM SURPLUS	0.00	0.00
072	LESS: WRITE BACK DURING THE YEAR	0.00	0.00
073	**SUB-TOTAL**	**0.00**	**0.00**
074	**GENERAL RESERVE**	**0.00**	**0.00**
075	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
076	ADD: TRANSFER FROM SURPLUS	0.00	0.00
077	LESS: TRANSFER TO SURPLUS	0.00	0.00
078	LESS: WRITE BACK DURING THE YEAR /PERIOD	0.00	0.00
079	LESS: ADJUSTMENTS DURING THE YEAR /PERIOD	0.00	0.00
080	**SUB-TOTAL**	**0.00**	**0.00**
081		**0.00**	**0.00**
082	**RETAINED EARNINGS**	**0.00**	**0.00**
083	AS PER LAST FINANCIAL STATEMENTS	5,043,486,964.58	1,207,756,548.79
084	ADD(LESS): CHANGES IN ACCOUNTING POLICY / PRIOR PERIOD ERRORS	0.00	0.00
085	ADD(LESS):-PROFIT (LOSS) AFTER TAX FOR THE YEAR FROM STATEMENT OF PROFIT & LOSS	954,678,829.01	3,835,730,415.79
087	ADD: WRITE BACK FROM BOND REDEMPTION RESERVE	0.00	0.00
088	ADD: WRITE BACK FROM CAPITAL RESERVE	0.00	0.00
089	ADD: WRITE BACK FROM FOREIGN PROJECT RESERVE	0.00	0.00
090	ADD: WRITE BACK FROM CSR RESERVE	0.00	0.00
091	ADD: WRITE BACK FROM GENERAL RESERVE	0.00	0.00
093	LESS: TRANSFER TO BONDS REDEMPTION RESERVE	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 24 TO THE FS-EQUITY-OTHER EQUITY (Amount in ₹)

	As at	31.03.2024	31.03.2023
094	LESS: TRANSFER TO SPECIAL ALLOWANCE RESERVE FUND	0.00	0.00
095	LESS: TRANSFER TO FOREIGN PROJECT RESERVE	0.00	0.00
096	LESS:TRANSFER TO CAPITAL RESERVE	0.00	0.00
097	LESS:TRANSFER TO CSR RESERVE	0.00	0.00
098	LESS:TRANSFER TO GENERAL RESERVE	0.00	0.00
099	LESS:INTERIM DIVIDEND PAID	0.00	0.00
100	LESS:TAX ON INTERIM DIVIDEND PAID	0.00	0.00
101	LESS:FINAL DIVIDEND PAID	0.00	0.00
102	LESS:TAX ON FINAL DIVIDEND PAID	0.00	0.00
103	LESS: ISSUE OF BONUS DEBENTURE	0.00	0.00
104	LESS: TAX ON ISSUE OF BONUS DEBENTURE	0.00	0.00
105	**SUB-TOTAL**	**5,998,165,783.59**	**5,043,486,954.58**
110		0.00	0.00
111	**REMEASUREMENT OF DEFINED BENEFIT PLANS**	**0.00**	**0.00**
112	AS PER LAST FINANCIAL STATEMENTS	-17,521,712.14	-14,604,767.21
113	ADD/(LESS):- ACTUARIAL GAINS/LOSS THROUGH OCI	2,223,195.40	-2,916,944.93
114	**SUB-TOTAL**	**-15,298,516.74**	**-17,521,712.14**
115		0.00	0.00
116	**FVTOCI Reserve**	**0.00**	**0.00**
117	AS PER LAST FINANCIAL STATEMENTS	0.00	0.00
118	ADD(LESS):-NET GAIN/LOSS OF EQUITY INSTRUMENTS THROUGH OCI	0.00	0.00
119	**Sub-Total**	**0.00**	**0.00**
120		**0.00**	**0.00**
121	**Total Other equity**	**5,982,867,266.85**	**5,025,965,242.44**
122		0.00	0.00
123		0.00	0.00
124		0.00	0.00
125		0.00	0.00
126		0.00	0.00
127		0.00	0.00
128	The fly ash utilization reserve fund is controlled at Corporate Centre.	0.00	0.00



PAKRI BARWADIH COAL MINE

NOTE NO. 25 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**LONG TERM BORROWINGS**	**0.00**	**0.00**
002	**Bonds**	**0.00**	**0.00**
003	**Secured**	**0.00**	**0.00**
004	7.37 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2035 (Fifty Sixth Issue - Public Issue - Series 3A).	0.00	0.00
005	7.62 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2035 (Fifty Sixth Issue - Public Issue - Series 3 B).	0.00	0.00
006	8.61% Tax free secured non-cumulative non-convertible redeemable bonds of ₹ 10,00,000/- each redeemable at par in full on 4th March 2034 (Fifty First Issue C - Private Placement)	0.00	0.00
007	8.66% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2033 (Fiftieth Issue - Public Issue - Series 3A)	0.00	0.00
008	8.91% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2033 (Fiftieth Issue - Public Issue - Series 3B)	0.00	0.00
009	7.37% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 14th December 2031 (Sixty Sixth Issue - Private Placement)	0.00	0.00
010	7.49% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 7th November 2031 (Sixty Fourth Issue - Private Placement)	0.00	0.00
011	7.28 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2030 (Fifty Sixth Issue - Public Issue - Series	0.00	0.00

पवन देव जामदा/PAWAN DEV JAMIA
उप महाप्रबंधक (वित्तीय लेखा)
Dep. Chief Manager (Commercial)
एन टी पी सी लिमिटेड / NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 25 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2024	31.03.2023
	2A)		
012	7.53 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2030 (Fifty Sixth Issue - Public Issue - Series 2 B).	0.00	0.00
013	7.32% Secured non-cumulative non-convertible redeemable taxable bonds of Rs 10,00,000/- each redeemable at par in full on 17 July 2029 (Sixty Ninth Issue - Private Placement)	0.00	0.00
014	8.63% Tax free secured non-cumulative non-convertible redeemable bonds of ₹ 10,00,000/- each redeemable at par in full on 4th March 2029 (Fifty First Issue B - Private Placement)	0.00	0.00
015	8.30% Secured non-cumulative non-convertible redeemable taxable bonds of Rs 10,00,000/- each redeemable at par in full on 15 January 2029 (Sixty Seventh Issue - Private Placement)	0.00	0.00
016	8.48% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2028 (Fiftieth Issue - Public Issue - Series 2A)	0.00	0.00
017	8.73% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2028 (Fiftieth Issue - Public Issue - Series 2B)	0.00	0.00
018	7.47% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 16th September 2026 (Sixty Third Issue - Private Placement)	0.00	0.00
019	7.58% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in	0.00	0.00

	As at	31.03.2024	31.03.2023
	full on 23rd August 2026 (Sixty Second Issue - Private Placement)		
020	8.05% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 5th May 2026 (Sixtieth Issue - Private Placement)	0.00	0.00
021	8.19% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 15th December 2025 (Fifty Seventh Issue - Private Placement)	0.00	0.00
022	7.11 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2025 (Fifty Sixth Issue - Public Issue - Series 1A).	0.00	0.00
023	7.36 % Tax free secured non-cumulative non-convertible redeemable bonds-2015 of Rs. 1,000/- each redeemable at par in full on 5th October 2025 (Fifty Sixth Issue - Public Issue - Series 1 B).	0.00	0.00
024	7.15% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of Rs. 10,00,000/- each redeemable at par in full on 21st August 2025 (Fifty Fifth Issue - Private Placement)	0.00	0.00
025	9.17% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 22nd September 2024 (53rd Issue - private placement).	0.00	0.00
026	9.34% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 24th March 2024 (Fifty Second Issue - private placement)	0.00	0.00
027	8.19% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 10,00,000/- each redeemable at	0.00	0.00

(Amount in ₹)

	As at	31.03.2024	31.03.2023
	par in full on 4th March 2024 (Fifty First Issue A - Private Placement)		
028	8.41% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2023 (Fiftieth Issue - Public Issue - Series 1A)	0.00	0.00
029	8.66% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1000/- each redeemable at par in full on 16th December 2023 (Fiftieth Issue - Public Issue - Series 1B)	0.00	0.00
030	9.25% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each with five equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 11th year and in annual installments thereafter upto the end of 15th year respectively commencing from 4th May 2023 and ending on 4th May 2027 (Forty fourth issue - private placement)VII	0.00	0.00
031	8.48% Secured non-cumulative non-nonvertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 1st May 2023 (Seventeenth issue - private placement)I	0.00	0.00
032	8.80% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4th April 2023 (Forty ninth issue -private placement	0.00	0.00
033	8.49% Secured non-cumulative non-convertible redeemable taxable fully paid-up bonus debentures of Rs. 12.50 each redeemable at par in three annual installments of Rs. 2.50, Rs. 5.00 and Rs. 5.00 at the end of 8th year, 9th year and 10th year on 25th March 2023, 25th March 2024 and 25th March 2025 respectively (Fifty Fourth Issue -Bonus Debentures)X - (refer Note 5 d)	0.00	0.00
034	8.73% Secured non-cumulative	0.00	0.00

	As at	31.03.2024	31.03.2023
	non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 07th March 2023 (Forty eighth issue - private placement)		
035	9.00% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each with five equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 11th year and in annual installments thereafter upto the end of 15th year respectively commencing from 25th January 2023 and ending on 25th January 2027 (Forty second issue- private placement)III	0.00	0.00
036	8.84% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4th October 2022 (Forty seventh issue- private placement)VII	0.00	0.00
037	7.93% Secured non-cumulative non-convertible redeemable taxable bonds of 10,00,000/- each redeemable at par in full on 03 May 2022 (68th Issue - Private Placement)	0.00	0.00
038	6.72% Secured non-cumulative non-convertible redeemable taxable bonds of Rs. 10,00,000/- each redeemable at par in full on 24th November 2021 (Sixty Fifth Issue - Private Placement)	0.00	0.00
039	8.10% Secured Non-Cumulative Non-Convertible Redeemable Taxable Bonds of Rs. 30,00,000/- each redeemable at par in three equal separately transferable redeemable principal parts (STRPP) at the end of 5th year, 10th year & 15th year on 27th May 2021, 27th May 2026 and 27th May 2031 respectively (Sixty First Issue Private Placement)	0.00	0.00
040	8.33% Secured non-cumulative non-convertible redeemable taxable bonds of Rs.10,00,000/- each redeemable at par in full on 24th February 2021	0.00	0.00

(Amount in ₹)

	As at	31.03.2024	31.03.2023
	(Fifty Ninth Issue - Private Placement).		
042	8.93% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 19th January 2021 Thirty seventh issue - private placement)III	0.00	0.00
043	8.18% Secured non-cumulative non-convertible redeemable taxable bonds of Rs.10,00,000/- each redeemable at par in full on 31st December 2020 (Fifty Eight Issue - Private Placement).	0.00	0.00
044	8.73 % Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 31st March 2020 (Thirty third issue- private placement)III	0.00	0.00
045	8.78 % Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 9th March 2020 (Thirty first issue- private placement)II	0.00	0.00
046	11.25% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in five equal annual installments commencing from 6th Nov 2019 and ending on 6th Nov 2023 (Twenty seventh issue - private placement)III	0.00	0.00
047	7.89% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 5th May 2019 (Thirtieth issue - private placement)III	0.00	0.00
048	8.65% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4th February 2019 (Twenty ninth issue - private placement)III	0.00	0.00
049	7.50% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full	0.00	0.00

	As at	31.03.2024	31.03.2023
	on 12th January 2019 (Nineteenth issue - private placement)II		
050	11% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 21st November 2018 (Twenty eighth issue - private placement)II	0.00	0.00
051	9.3473% Secured non-cumulative non-convertible redeemable taxable bonds of ₹15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 20th July 2018 and ending on 20th July 2032 (Forty sixth issue - private placement)VII	0.00	0.00
052	9.4376% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 16th May 2018 and ending on 16th May 2032 (Forty fifth issue - private placement)VII	0.00	0.00
053	8.00% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 10th April 2018 (Sixteenth issue -private placement)I	0.00	0.00
054	9.2573% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 2nd March 2018 and ending on 2nd March 2032 (Forty third issue - private placement)III	0.00	0.00
055	9.6713% Secured non-cumulative non-convertible redeemable taxable bonds	0.00	0.00

	As at	31.03.2024	31.03.2023
	of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 23rd December 2017 and ending on 23rd December 2031 (Forty first issue - private placement)III		
056	9.558% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 29th July 2017 and ending on 29th July 2031(Fourtieth issue-private placement)III	0.00	0.00
057	9.3896% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 9th June 2017 and ending on 9th June 2031(Thirty ninth issue-private placement)III	0.00	0.00
058	9.17% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 22nd March 2017 and ending on 22nd March 2031(Thirty eighth issue-private placement)III	0.00	0.00
059	8.8086% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th	0.00	0.00

	As at	31.03.2024	31.03.2023
	year and in annual installments thereafter upto the end of 20th year respectively commencing from 15th December 2016 and ending on 15th December 2030 (Thirty sixth issue - private placement)(II		
060	8.785% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 15th September 2016 and ending on 15th September 2030 (Thirty fifth issue - private placement)(II	0.00	0.00
061	8.71% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 10th June 2016 and ending on 10th June 2030 (Thirty fourth issue - private placement)(II	0.00	0.00
062	8.8493% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 25th March 2016 and ending on 25th March 2030 (Thirty second issue - private placement)(II	0.00	0.00
063	9.37% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 70,00,000/- each with fourteen separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 4th June 2012 and ending on 4th December 2018 (Twenty fifth issue -	0.00	0.00

	As at	31.03.2024	31.03.2023
	private placementIIII		
065	9.06% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 70,00,000/- each with fourteen separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 4th June 2012 and ending on 4th December 2018 (Twenty sixth issue - private placementIIII	0.00	0.00
066	8.6077% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 9th September 2011 and ending on 9th March 2021 (Twenty fourth issue - private placementIV	0.00	0.00
067	8.3796% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 5th August 2011 and ending on 5th February 2021 (Twenty third issue - private placementIV	0.00	0.00
068	8.1771% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 2nd July 2011 and ending on 2nd January 2021 (Twenty second issue - private placementIIV	0.00	0.00
069	7.7125% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 2nd August 2010 and ending on 2nd February 2020 (Twenty first issue - private placementIV	0.00	0.00
070	7.552% Secured non-cumulative non-convertible redeemable taxable bonds	0.00	0.00

	As at	31.03.2024	31.03.2023
	of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 23rd September 2009 and ending on 23rd March 2019 (Twentieth Issue - private placement)VI		
071	9.55% Secured non-cumulative non-convertible taxable redeemable bonds of ₹ 10,00,000/- each with ten equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of the 6th year and in annual installments thereafter upto the end of 15th year respectively from 30th April 2002 (Thirteenth issue - Part B - private placement)VIII	0.00	0.00
072	9.55% Secured non-cumulative non-convertible taxable redeemable bonds of ₹ 10,00,000/- each redeemable at par in ten equal annual installments commencing from the end of 6th year and upto the end of 15th year respectively from 18th April 2002 (Thirteenth issue -Part A - private placement)VIII	0.00	0.00
075		0.00	0.00
076		0.00	0.00
077		0.00	0.00
078		0.00	0.00
079		0.00	0.00
080		0.00	0.00
081		0.00	0.00
082	**Sub Total**	**0.00**	**0.00**
083	**Unsecured**	**0.00**	**0.00**
084	6.55% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 17 April 2023 (Seventieth Issue - Private Placement)	0.00	0.00
085	6.29% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 11 April 2031 (Seventy First Issue - Private Placement)	0.00	0.00
088	5.45% Unsecured non-cumulative non-convertible redeemable taxable bonds	0.00	0.00

NOTE NO. 25 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2024	31.03.2023
	of ₹ 10,00,000/- each redeemable at par in full on 15 October 2025 (Seventy Second Issue - Private Placement)		
087	6.43% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 27 January 2031 (Seventy Third Issue - Private Placement)	0.00	0.00
088	6.67% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 21 April 2036 (Seventy Fourth Issue - Private Placement)	0.00	0.00
089	6.69% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 13 September 2031 (Seventy Fifth Issue - Private Placement)	0.00	0.00
090	6.74% Unsecured non-cumulative non-convertible redeemable taxable bonds of Rs.10,00,000/- each redeemable at par in full on 14 April 2032 (Seventy Sixth Issue - Private Placement)	0.00	0.00
091	5.78% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 29 April 2024 (Seventy Seventh Issue - Private Placement)	0.00	0.00
092	7.44% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 25 August 2032 (Seventy Eighth Issue - Private Placement)	0.00	0.00
093	7.44% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 15 April 2033 (Seventy Ninth Issue - Private Placement)	0.00	0.00
094	7.35% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 1,00,000/- each redeemable at par in full on 17 April 2026 (Eightieth Issue - Private Placement)	0.00	0.00
095	7.48% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 1,00,000/- each redeemable at par in full on 21 March 2026 (Eighty First Issue - Private Placement)	0.00	0.00
096		0.00	0.00
097		0.00	0.00
098		0.00	0.00
099		0.00	0.00
100	**Sub-total**	**0.00**	**0.00**
101	**Total**	**0.00**	**0.00**

PAKRI BARWADIH COAL MINE

NOTE NO. 25 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2024	31.03.2023
102	**Foreign Currency Notes-Unsecured**	**0.00**	**0.00**
103	4.50% Fixed Rate Notes Due for repayment on 18th March 2028	0.00	0.00
104	2.75% Fixed rate notes due for repayment on 1st February 2027	0.00	0.00
105	4.25 % Fixed rate notes due for repayment on 26th February 2026	0.00	0.00
106	4.375% Fixed Rate Note due for repayment on 26th November 2024	0.00	0.00
107	4.75 % Fixed Rate Notes due for repayment on 3rd Oct 2022	0.00	0.00
108	7.25 % Fixed green global INR denominated bonds due on 3 May 2022	0.00	0.00
109	7.375 % Fixed green global INR denominated bonds due on 10 August 2021	0.00	0.00
110	5.625% Fixed Rate Notes due for repayment on 14th July 2021	0.00	0.00
111	3.75 % Fixed rate notes due for repayment on 03 April 2024	0.00	0.00
112		0.00	0.00
113		0.00	0.00
114		0.00	0.00
115	**Sub Total**	**0.00**	**0.00**
116	**Term Loans**	**0.00**	**0.00**
117	**From Banks**	**0.00**	**0.00**
118	**Secured**	**0.00**	**0.00**
119	Rupee Loans	0.00	0.00
120	**Unsecured**	**0.00**	**0.00**
121	Foreign Currency Loans	0.00	0.00
122	Rupee Loans	0.00	0.00
123	**From Others**	**0.00**	**0.00**
124	**Secured**	**0.00**	**0.00**
125	Rupee Loans	0.00	0.00
126	Foreign Currency loans (guaranteed by GOI)	0.00	0.00
127	**Unsecured**	**0.00**	**0.00**
128	Foreign Currency loans (guaranteed by GOI)	0.00	0.00
129	Other Foreign currency loans	0.00	0.00
131	Rupee Loans	0.00	0.00
132	**Deposits**	**0.00**	**0.00**
133	**Unsecured**	**0.00**	**0.00**
134	Fixed Deposits	0.00	0.00
135	**Others**	**0.00**	**0.00**
136	**Unsecured**	**0.00**	**0.00**
137	Bonds Application Money Pending Allotment	0.00	0.00
138	**Sub-total**	**0.00**	**0.00**
139	**Total**	**0.00**	**0.00**
140	Less:- Interest accrued but not due on secured	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 25 TO THE FS-NCL-BORROWINGS

(Amount in ₹)

	As at	31.03.2024	31.03.2023
	borrowings		
141	Less:- Interest accrued but not due on unsecured borrowings	0.00	0.00
142	Less:- Current maturities of long term borrowings	0.00	0.00
143	Bonds-Secured	0.00	0.00
144	Fixed Rate Notes	0.00	0.00
146	Foreign currency loans from Banks- unsecured	0.00	0.00
147	Rupee loans from banks- Secured	0.00	0.00
148	Rupee loans from banks- unsecured	0.00	0.00
149	Rupee Term loan from Others - Secured	0.00	0.00
150	Foreign currency loans from others- unsecured (Guaranteed by GOI)	0.00	0.00
151	Other foreign currency loans from others-unsecured	0.00	0.00
152	Rupee loans from others- unsecured	0.00	0.00
153		0.00	0.00
154		0.00	0.00
155		0.00	0.00
156		0.00	0.00
157		0.00	0.00
158		0.00	0.00
159		0.00	0.00
160		0.00	0.00
161		0.00	0.00
201	**Total**	**0.00**	**0.00**

PAWAN DEV JAMTA

PAKRI BARWADIH COAL MINE

NOTE NO. 25 TO THE FS-NCL-LEASE LIABILITIES

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**Non-current financial liabilities - Lease liabilities**	**0.00**	**0.00**
002	**Lease liabilities**	**0.00**	**0.00**
003	Long term maturities of Finance Lease Liabilities (Secured) IX	0.00	0.00
004	Long term maturities of Finance Lease Liabilities (Unsecured) X	1,875,563,769.01	1,919,615,270.01
005	**Sub-Total**	**1,875,563,769.01**	**1,919,615,270.01**
006	**Less: current maturities of lease liabilities**	**0.00**	**0.00**
007	Finance Lease obligations - secured	0.00	0.00
008	Finance Lease obligations - unsecured	100,473,267.00	187,632,912.00
009	**Sub-Total**	**100,473,267.00**	**187,632,912.00**
011	**Total**	**1,775,090,502.01**	**1,731,982,358.01**

PAKRI BARWADIH COAL MINE

NOTE NO. 27 TO THE FS-NCL-TRADE PAYABLES (Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**TRADE PAYABLES(NON CURRENT)**	**0.00**	**0.00**
002	**For Goods and Services**	**0.00**	**0.00**
003	- Micro & Small Enterprises	0.00	0.00
004	- Others	0.00	0.00
005		0.00	0.00
007	**Total**	**0.00**	**0.00**

Locked: 28.04.2024 - 20:58:39
Run on: 28.04.2024 - 21:00:44 Version: 0

1276

PAKRI BARWADIH COAL MINE

NOTE NO. 28 TO THE FS-NCL-OTHER FINANCIAL LIABILITIES (Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**OTHER FINANCIAL LIABILITIES (NON-CURRENT)**	**0.00**	**0.00**
002	Payable for Capital Expenditure	0.00	0.00
003	- Micro & Small Enterprises	0.00	1,367,001.11
004	- Others	2,259,914.76	20,206,919.98
005	Contractual Obligations	2,686,817.88	477,203.93
006	Others	0.00	0.00
007	Deposits from contractors and others	0.00	0.00
008		0.00	0.00
009		0.00	0.00
011	**Total**	**4,946,732.64**	**22,071,125.02**
020		0.00	0.00
021	**Payable for Capital Expenditure - SD/retntion**	**0.00**	**0.00**
022	- Micro & Small Enterprises	0.00	1,367,001.11
023	- Others	2,259,914.76	71,503.43
024	**Sub-total**	**2,259,914.76**	**1,438,504.54**
025	**Contractual Obligations**	**0.00**	**0.00**
026	- Micro & Small Enterprises	276,204.92	0.00
027	- Others	2,410,612.96	477,203.93
028	**Sub-total**	**2,686,817.88**	**477,203.93**
029	**Total (24+28)**	**4,946,732.64**	**1,935,708.47**
030		0.00	0.00



Locked: 28.04.2024 - 20:58:36
Run on: 28.04.2024 - 21:00:45 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 29 TO THE FS-NCL-PROVISIONS

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**LONG TERM PROVISIONS**	**0.00**	**0.00**
002	**Provision for Employee Benefits**	**0.00**	**0.00**
003	Opening Balance	0.00	0.00
004	Additions/ (adjustments) during the year	0.00	0.00
005	**Closing Balance**	**0.00**	**0.00**
006		0.00	0.00
007	**Others**	**0.00**	**0.00**
008	**i) Mine Closure Provision**	**0.00**	**0.00**
009	Opening Balance	2,405,900,000.00	2,251,300,000.00
010	Additions during the year	161,200,000.00	154,600,000.00
011	Amounts adjusted during the year	0.00	0.00
012	Amounts reversed during the year	239,900,000.00	0.00
013	**Closing Balance**	**2,327,200,000.00**	**2,405,900,000.00**
014		0.00	0.00
015	**ii) Stripping Activity Adjustments**	**0.00**	**0.00**
016	Opening Balance	3,418,276,627.00	1,792,446,942.00
017	Additions during the year	935,981,737.00	1,625,829,685.00
018	Amounts adjusted during the year	527,236,069.20	0.00
019	Amounts reversed during the year	0.00	0.00
020	**Closing Balance**	**3,827,022,294.80**	**3,418,276,627.00**
021		0.00	0.00
024		0.00	0.00
025	**TOTAL**	**6,154,222,294.80**	**5,824,176,627.00**

PAWAN DEV JAMTA
Deputy General Manager (Commercial)
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

NOTE NO. 30 TO THE FS-NCL-DEFERRED TAX LIABILITIES (NET) (Amount in ₹)

	As at	Opening Balance on 01.04.2023	Addition	Closing Balance on 31.03.2024
001	**DEFERRED TAX LIABILITIES (NET)**			
002	Difference of book depreciation and tax depreciation	0.00	0.00	0.00
003	Less: Deferred tax assets			
004	Provisions & Other disallowances for tax purposes	0.00	0.00	0.00
005	Unabsorbed Depreciation	0.00	0.00	0.00
006	Disallowances u/s 43B of the Income Tax Act, 1961	0.00	0.00	0.00
007	Others	0.00	0.00	0.00
008	Opening Balance	0.00	0.00	0.00
009	Additions during the year	0.00	0.00	0.00
010	Amounts adjusted during the year	0.00	0.00	0.00
011	Amounts reversed during the year	0.00	0.00	0.00
012	Closing Balance	0.00	0.00	0.00
013	MAT credit entitlement	0.00	0.00	0.00
014	**Total**	**0.00**	**0.00**	**0.00**
016		0.00	0.00	0.00
017	**Total**	**0.00**	**0.00**	**0.00**
018	Breakup of deferred tax assets	0.00	0.00	0.00
019	Provision	0.00	0.00	0.00
020	Statutory dues	0.00	0.00	0.00
021	Leave encashment	0.00	0.00	0.00
022	Others	0.00	0.00	0.00
023		0.00	0.00	0.00
024		0.00	0.00	0.00



FAKRI BARWADIH COAL MINE

NOTE NO. 31 TO THE FS-NCL-OTHER NON-CURRENT LIABILITIES **(Amount in ₹)**

	As at	31.03.2024	31.03.2023
001	Other Non current Liabilities	0.00	0.00
002	Advances from customers and others	0.00	0.00
003	Deposits from contractors and others	0.00	0.00
004	Grants	0.00	0.00
006		0.00	0.00
007	**TOTAL**	**0.00**	**0.00**

पवन देव जमटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वित्त)/Dy. General Manager (Finance)
एन टी पी सी लिमिटेड/NTPC LIMITED
EDC-I, SA, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 32 TO THE FS-CL-BORROWINGS

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**Short Term Borrowings**	**0.00**	**0.00**
002	**Loans repayable on demand**	**0.00**	**0.00**
003	**From Banks**	**0.00**	**0.00**
004	**Secured**	**0.00**	**0.00**
005	Cash Credit	0.00	0.00
006	**Unsecured**	**0.00**	**0.00**
007	Cash Credit	0.00	0.00
008	**Other loans-unsecured**	**0.00**	**0.00**
009	Commercial Papers	0.00	0.00
010	Less: Unamortised discount on Commercial Papers	0.00	0.00
011	**Sub-Total**	**0.00**	**0.00**
012	**Current maturity of long term borrowings**	**0.00**	**0.00**
013	Bonds-Secured	0.00	0.00
014	Foreign Currency Fixed Rate Notes	0.00	0.00
015	**From Banks**	**0.00**	**0.00**
016	**Secured**	**0.00**	**0.00**
017	Rupee Term Loan	0.00	0.00
018	Foreign currency loans	0.00	0.00
019	**Unsecured**	**0.00**	**0.00**
020	Foreign currency loans	0.00	0.00
021	Rupee term loans	0.00	0.00
022	**From Others**	**0.00**	**0.00**
023	**Secured**	**0.00**	**0.00**
024	Rupee Term Loan	0.00	0.00
025	**Unsecured**	**0.00**	**0.00**
026	Foreign currency loans (Guaranteed by Government of India)	0.00	0.00
027	Other foreign currency loans	0.00	0.00
028	Rupee term loans	0.00	0.00
029	Fixed deposits	0.00	0.00
030	Bill discounted	0.00	0.00
031		0.00	0.00
032	Sub Total	0.00	0.00
034		0.00	0.00
035	**TOTAL**	**0.00**	**0.00**

Dy. General Manager
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 33 TO THE FS-CL-LEASE LIABILITIES

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**Current financial liabilities - Lease liabilities**	**0.00**	**0.00**
002	Current maturity of finance lease obligations (secured)	0.00	0.00
003	Current maturity of finance lease obligations (unsecured)	100,473,267.00	187,632,912.00
005	**Total**	**100,473,267.00**	**187,632,912.00**



PAKRI BARWADIH COAL MINE

NOTE NO. 34 TO THE FS-CL-TRADE PAYABLES (Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**TRADE PAYABLES**	**0.00**	**0.00**
002	For Goods and Services	0.00	0.00
003	- Micro & Small Enterprises	42,968,504.47	19,165,193.96
004	- Others	3,103,002,446.48	2,162,257,587.11
005		0.00	0.00
007	**Total**	**3,145,970,950.95**	**2,181,422,781.07**
008		0.00	0.00
172	**Trade payable**	**0.00**	**0.00**
173	**MSME**	**0.00**	**0.00**
174	Unbilled	29,229,189.47	9,732,661.96
175	Not due	0.00	0.00
176	**Due**	**13,739,315.00**	**9,432,532.00**
177	Disputed	0.00	0.00
178	Undisputed	13,739,315.00	9,432,532.00
179		0.00	0.00
180	**Sub-total (A)**	**42,968,504.47**	**19,165,193.96**
181		0.00	0.00
182	**Others**	**0.00**	**0.00**
183	Unbilled	200,865,826.39	129,351,935.43
184	Not due	0.00	0.00
185	**Due**	**2,901,870,320.09**	**2,032,905,651.68**
186	Disputed	0.00	0.00
187	Undisputed	2,901,870,320.09	2,032,905,651.68
188		0.00	0.00
189	**Sub-total (B)**	**3,102,736,146.48**	**2,162,257,587.11**
190		0.00	0.00
191	**Total**	**3,145,722,650.95**	**2,181,422,781.07**
192		0.00	0.00
193	**Ageing**	**0.00**	**0.00**
194	**MSME**	**0.00**	**0.00**
195	**Disputed**	**0.00**	**0.00**
196	Less than 1 year	0.00	0.00
197	1-2 years	0.00	0.00
198	2-3 years	0.00	0.00
199	More than 3 years	0.00	0.00
200	**Sub Total (I)**	**0.00**	**0.00**
201		0.00	0.00
202	**Undisputed**	**0.00**	**0.00**
203	Less than 1 year	13,739,315.00	9,432,532.00
204	1-2 years	0.00	0.00
205	2-3 years	0.00	0.00
206	More than 3 years	0.00	0.00
207	**Sub Total (II)**	**13,739,315.00**	**9,432,532.00**
208		0.00	0.00
209	**Total MSME (III)**	**13,739,315.00**	**9,432,532.00**
210		0.00	0.00

Locked: 28.04.2024 - 20:58:35
Run on: 28.04.2024 - 21:00:56 Version: 0

1282

PAKRI BARWADIH COAL MINE

NOTE NO. 34 TO THE FS-CL-TRADE PAYABLES

(Amount in ₹)

	As at	31.03.2024	31.03.2023
211	**Others**	**0.00**	**0.00**
212	**Disputed**	**0.00**	**0.00**
213	Less than 1 year	0.00	0.00
214	1-2 years	0.00	0.00
215	2-3 years	0.00	0.00
216	More than 3 years	0.00	0.00
217	**Sub Total (IV)**	**0.00**	**0.00**
218		0.00	0.00
219	**Undisputed**	**0.00**	**0.00**
220	Less than 1 year	2,167,690,908.89	1,979,955,959.38
221	1-2 years	685,873,425.00	9,047,368.00
222	2-3 years	0.00	42,458,072.20
223	More than 3 years	48,305,926.20	1,444,252.10
224	**Sub Total (V)**	**2,901,870,320.09**	**2,032,905,651.68**
225		0.00	0.00
226	**Total Others (VI)**	**2,901,870,320.09**	**2,032,905,651.68**

पवन देव जानकी/PAWAN DEVOLANA
Dep. General Manager (Coal Mines)
एन.टी.पी.सी. लिमिटेड / NTPC LIMITED
SOC. A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 15 TO THE FS-CL-OTHER FINANCIAL LIABILITIES

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**OTHER FINANCIAL LIABILITIES (CURRENT)**	**0.00**	**0.00**
020	Interest accrued but not due on Unsecured Short Term Borrowing	0.00	0.00
021	Interest accrued but not due on secured borrowings	0.00	0.00
022	Interest accrued but not due on unsecured borrowings	0.00	0.00
023	Unpaid Dividends*	0.00	0.00
024	Unpaid matured deposits and interest accrued thereon*	0.00	0.00
025	Unpaid matured bonds and interest accrued thereon*	0.00	0.00
026	Unpaid bond refund money-Tax free bonds *	0.00	0.00
027	Book Overdraft	0.00	0.00
028	Payable to Customers	0.00	0.00
029	Liability under forward exchange contact	0.00	0.00
030	Hedging cost payable to beneficiaries	0.00	0.00
031	Derivative MTM Liability	0.00	0.00
032	**Payable for Capital Expenditure**	**0.00**	**0.00**
033	- Micro & Small Enterprises	43,630,431.89	50,727,140.69
034	- Others	1,820,093,892.70	1,466,252,341.30
035	Contractual Obligations	439,862,655.24	468,759,110.52
036	**Others Payables**	**0.00**	**0.00**
037	Deposits from contractors and others	13,626,523.36	13,674,823.36
038	Gratuity Obligations	0.00	0.00
039	Payable to employees	1,970,098.34	4,148,600.71
040	Payable to holding company	0.00	0.00
041	Retention on A/c BG encashment (Solar)	0.00	0.00
042	Payable to Solar Payment Security Account	0.00	0.00
043	Others **	2,933,601,831.00	2,516,076,323.00
044	Unspent CSR balance on ongoing Approved CSR projects	0.00	0.00
046		0.00	0.00
047		0.00	0.00
048	**Total**	**5,253,985,432.53**	**4,539,838,339.58**
049	* Represents the amounts which have not been claimed by the investor/holders of the bonds/fixed deposits. Out of the above, no amount is due for payment to Investor Education and Protection Fund.	0.00	0.00
050	** Include Payable to Hospital and other payable.	0.00	0.00
051	**Payable for Capital Expenditure - SD/retntion**	**0.00**	**0.00**
052	- Micro & Small Enterprises	23,959,186.00	15,625,204.00
053	- Others	324,221,028.78	238,659,092.98
054	**Sub-total**	**348,180,216.78**	**254,284,296.98**
055	**Contractual Obligations**	**0.00**	**0.00**
056	- Micro & Small Enterprises	41,925,677.09	37,581,060.00
057	- Others	397,936,978.24	431,258,090.52

Locked: 28.04.2024 - 20:58:36
Run on: 28.04.2024 - 21:00:58 Version: 0

1284

PAKRI BARWADIH COAL MINE

NOTE NO. 35 TO THE FS-CL-OTHER FINANCIAL LIABILITIES

(Amount in ₹)

	As at	31.03.2024	31.03.2023
058	**Sub-total**	**439,862,655.24**	**468,759,110.52**
059	**Total**	**758,042,872.02**	**723,043,497.50**
060		0.00	0.00



PAKRI BARWADIH COAL MINE

NOTE NO. 36 TO THE FS-CL-OTHER CURRENT LIABILITIES

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**OTHER CURRENT LIABILITIES**	**0.00**	**0.00**
002	Advances from customers and others	0.00	0.00
003	Deferred discount on forward exchange contact	0.00	0.00
004	Tax deducted at source and other statutory dues	940,815,958.22	1,075,837,932.44
005	Deposits from contractors and others	0.00	0.00
006	Government grants	0.00	0.00
007	Others	0.00	0.00
009		0.00	0.00
010		0.00	0.00
011	**Total**	**940,815,958.22**	**1,075,837,932.44**

पवन देव जानदा/PAWAN DEV JAN...
उप महाप्रबंधक (वरि.प्र.)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 37 TO THE FS-CL-PROVISIONS

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**SHORT TERM PROVISIONS**	**0.00**	**0.00**
002	**Provision for Employee Benefits**	**0.00**	**0.00**
003	Opening balance	0.00	0.00
004	Additions/ (adjustments) during the year	0.00	0.00
005	**Closing Balance**	**0.00**	**0.00**
028	**Provisions for Obligations Incidental to Land Acquisition**	**0.00**	**0.00**
029	Opening balance	1,297,139,946.38	2,208,606,003.46
030	Additions during the year	1,054,155,449.14	678,561,687.00
031	Amounts paid during the year	2,267,118,602.52	1,404,358,395.08
032	Amounts reversed during the year	0.00	183,669,349.00
033	**Closing Balance**	**84,176,793.00**	**1,297,139,946.38**
035	**Provision for Tariff Adjustment**	**0.00**	**0.00**
036	Opening balance	0.00	0.00
037	Additions during the year	0.00	0.00
038	Amounts adjusted during the year	0.00	0.00
039	Amounts reversed during the year	0.00	0.00
040	**Closing Balance**	**0.00**	**0.00**
042	**Provision for shortage in Fixed Assets Pending Investigation & Others**	**0.00**	**0.00**
043	Opening balance	607,747.00	607,747.00
044	Additions during the year	536,581.24	0.00
045	Amounts adjusted during the year	489,646.78	0.00
046	Amounts reversed during the year	118,100.22	0.00
047	**Closing Balance**	**536,581.24**	**607,747.00**
048	**Provision for Arbitration**	**0.00**	**0.00**
049	Opening balance	0.00	0.00
050	Additions during the year	0.00	0.00
051	Amounts used during the year	0.00	0.00
052	Amounts reversed during the year	0.00	0.00
053	**Closing Balance**	**0.00**	**0.00**
054	**Others**	**0.00**	**0.00**
055	Opening balance	0.00	0.00
056	Additions during the year	0.00	0.00
057	Amounts used during the year	0.00	0.00
058	Amounts reversed during the year	0.00	0.00
059	**Closing Balance**	**0.00**	**0.00**
102		0.00	0.00
104	**Total**	**84,713,374.24**	**1,297,747,693.38**

Deputy General Manager (F&A)
एन टी पी सी लिमिटेड / NTPC Limited
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 38 TO THE FS-CL-CURRENT TAX LIABILITIES (NET)

(Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**Current liabilities - current tax liabilities (net)**	**0.00**	**0.00**
002	Opening balance	0.00	0.00
003	Additions during the year	0.00	0.00
004	Amounts adjusted during the year	0.00	0.00
005	Less: Set off against taxes paid	0.00	0.00
007		0.00	0.00
008	**Closing Balance**	**0.00**	**0.00**

पवन देव कामत/PAWAN DEV [illegible]
[illegible]
Dy. [illegible] General Manager [illegible]
एन टी पी सी लिमिटेड / NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 39 TO THE FS--DEFERRED REVENUE (Amount in ₹)

	As at	31.03.2024	31.03.2023
001	**Deferred Revenue**	**0.00**	**0.00**
002	On account of advance against depreciation	0.00	0.00
003	On account of income from foreign currency fluctuation	0.00	0.00
004	Government grants	0.00	0.00
007		0.00	0.00
008		0.00	0.00
009	**TOTAL**	**0.00**	**0.00**



PAKRI BARWADIH COAL MINE

NOTE NO. 39A TO THE FS--REGULATORY DEFERRAL ACCOUNT CREDIT BALANCES (Amount in ₹)

	As at	31.03.2024	31.03.2023
001	Regulatory deferral account credit balances	0.00	0.00
002	Exchange Differences	0.00	0.00
003		0.00	0.00
005	**Total**	**0.00**	**0.00**

Dep.(I) General Manager (Co-ordinator)
एन टी पी सी लिमिटेड / NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 40 TO THE FS--REVENUE FROM OPERATIONS

(Amount in ₹)

	For the Year ended	31.03.2024	31.03.2023
001	**REVENUE FROM OPERATIONS**	**0.00**	**0.00**
002	**Sales**	**0.00**	**0.00**
003	Energy Sales (including Electricity Duty)	0.00	0.00
004	Less : Advance against depreciation deferred (net)	0.00	0.00
005	Add: Revenue recognized out of advance against depreciation	0.00	0.00
006	Add : Exchange fluctuation receivable from customers	0.00	0.00
007	Sale of energy through trading	0.00	0.00
008	Commission (NVVN)	0.00	0.00
009	**Sub total**	**0.00**	**0.00**
010	Less: Rebate to customers	0.00	0.00
011	**Energy Sales (Total)**	**0.00**	**0.00**
012	Consultancy, project management and supervision fees	0.00	0.00
013	Lease rentals on assets on Operating lease	0.00	0.00
014	Sale of Captive Coal	38,309,291,409.82	30,381,519,521.23
015	Intra Company Elimination	0.00	0.00
017	**Sub-total**	**38,309,291,409.82**	**30,381,519,521.23**
018	**Total - Sales**	**38,309,291,409.82**	**30,381,519,521.23**
019	Sale of fly ash/ash products	0.00	0.00
020	Less: Transferred to fly ash utilisation reserve fund	0.00	0.00
021	**Sub-total**	**0.00**	**0.00**
022	**Other Operating Income**	**0.00**	**0.00**
023	Interest from customers	0.00	0.00
024	Energy Internally Consumed *	0.00	0.00
025	Interest income on Assets under finance lease	0.00	0.00
026	Recognized from deferred revenue - government grant	0.00	0.00
027	Provision written back- Tariff Adjustment	0.00	0.00
028	Income form Trading of ESCerts	0.00	0.00
029	Income from E-Mobility Business & others	0.00	0.00
030	Others	0.00	0.00
032		0.00	0.00
033		0.00	0.00
034	**Total**	**38,309,291,409.82**	**30,381,519,521.23**
040	* Valued at variable cost of generation and corresponding amount included in power charges (Note No. 42)	0.00	0.00
041	Excise duty on sale of flyash,cenospere & ash products	0.00	0.00
042	Energy sales of principal nature (NVVN)	0.00	0.00
043	Energy sales of agency nature (NVVN)	0.00	0.00

पवन देव जायसवाल/PAWAN DEV JAIN
उप महाप्रबंधक (कॉर्पोरेट)
Deputy General Manager (Corporate Affairs)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 41 TO THE FS--OTHER INCOME

(Amount in ₹)

	For the Year ended	31.03.2024	31.03.2023
001	**OTHER INCOME**	**0.00**	**0.00**
002	**Interest from**	**0.00**	**0.00**
004	**Financial assets at amortised cost**	**0.00**	**0.00**
005	Government Securities (6.5% Tax Free Bonds issued by the State Governments)	0.00	0.00
006	Other Bonds	0.00	0.00
007	Non current Trade Receivable	0.00	0.00
008	Interest from Government of India Securities-Non-Trade	0.00	0.00
009	Less: Amortisation of premium	0.00	0.00
010	**Sub Total**	**0.00**	**0.00**
011	Interest from others	0.00	0.00
012	Loan to State Government in settlement of dues from customers	0.00	0.00
013	Loan to Subsidiary Companies	0.00	0.00
014	Loan to Employees	6,106,055.68	7,184,594.43
015	Deposit with banks	716,953,152.97	19,217,566.71
016	Foreign Banks	0.00	0.00
017	Interest from Contractors	51,271,472.00	108,084,363.60
018	Interest from Income Tax Refunds	0.00	0.00
019	Less : Refundable to Customers	0.00	0.00
020	**Sub Total**	**0.00**	**0.00**
021	Deposits with banks-flyash utilization reserve fund	0.00	0.00
022	Less: transferred to flyash utilisation reserve fund	0.00	0.00
023	**Sub Total**	**0.00**	**0.00**
024	Deposits with banks- DDUGJY funds	0.00	0.00
025	Interest from Contractors- DDUGJY funds	0.00	0.00
026	Transfer to DDUGJY-Advance from customers	0.00	0.00
027	Sub-total	0.00	0.00
030	Others	0.00	0.00
031	Other Investments in Joint venture companies	0.00	0.00
032	**Dividend from**	**0.00**	**0.00**
033	**Longterm Investments in**	**0.00**	**0.00**
034	Subsidiaries	0.00	0.00
035	Joint Ventures	0.00	0.00
036	Equity Instruments	0.00	0.00
037	**Current Investments in**	**0.00**	**0.00**
038	Mutual Funds measured at fairvalue through profit or loss	0.00	0.00
039	Current Investments in mutual funds-flyash utilisation reserve fund	0.00	0.00
040		0.00	0.00
041	Less: transferred to flyash utilisation reserve fund	0.00	0.00
042	Lease Rent # Ash Brick Plant	0.00	0.00
043	Less: transferred to flyash utilisation reserve fund	0.00	0.00
044	Other non-operating income	0.00	0.00
045	Profit on disposal of PPE	32,861.00	1,923.00

Locked: 29.04.2024 - 20:58:35
Run on: 29.04.2024 - 21:00:05 Version: 0

1292

Page 1 of 3

FAKRI BARWADIH COAL MINE

NOTE NO. 41 TO THE FS--OTHER INCOME **(Amount in ₹)**

	For the Year ended	31.03.2024	31.03.2023
046	Profit on redemption of GOI securities	0.00	0.00
047	Net gain on sale of investments	0.00	0.00
048	Surcharge received from customers	0.00	0.00
049	Hire charges for equipment	0.00	0.00
050	Gain on option contract / Discount on F.ExchContract	0.00	0.00
051	Lease rent from investment property	0.00	0.00
052	Provision written back-others	118,100.22	0.00
053	Fair value gains/(losses) on investments in mutual funds at fair value through profit or loss	0.00	0.00
054	Interest from Solar payment security account	0.00	0.00
055	Less : Transferred to SPSA fund	0.00	0.00
056	Interest on "Retention on A/c BG encashment (Solar)"	0.00	0.00
057	Less : Transferred to "Retention on A/c BG encashment (Solar)"	0.00	0.00
058		0.00	0.00
059		0.00	0.00
060		0.00	0.00
061	Miscellaneous Income	24,194,009.41	48,519,218.26
062	**Total**	**798,675,651.28**	**183,007,736.00**
063	Less:Transferred to Development of Coal Mines-Note 47A	0.00	3,050.00
064	Less:Transferred to Expenditure during Construction period (net)- Note 47	0.00	0.00
065	Less: Others	0.00	0.00
066	Less:Transferred to payable to Govt. of Jharkhand	0.00	0.00
068		0.00	0.00
069		0.00	0.00
070	**Total**	**798,675,651.28**	**183,004,686.00**
071		0.00	0.00
101	**Details of Miscellaneous Income**	**0.00**	**0.00**
102	Vehicle Hire Charges.	62,000.00	52,000.00
103	Sale of by products & residuals	0.00	0.00
104	Township recoveries(excl. Hospital Recoveries).	20,172,324.67	46,177,835.60
105	Depreciation written back	0.00	0.00
106	Sale of Scrap.	0.00	0.00
107	Receipt under loss of profit policy.	0.00	0.00
108	Receipts under MBD/Fire Policy.	0.00	0.00
109	Management development programme.	0.00	0.00
110	Management Fee - Misc (NVVN)	0.00	0.00
111	Others	3,959,684.74	2,289,382.66
112		0.00	0.00
113		0.00	0.00
114	**Total (Miscellaneous Income)**	**24,194,009.41**	**48,519,218.26**
115		0.00	0.00
121	**Details of Provision written back others**	**0.00**	**0.00**

Locked: 28.04.2024 - 20:58:35
Run on: 28.04.2024 - 21:00:05 Version: 0

PAKRI BARWADIH COAL MINE

NOTE NO. 41 TO THE FS--OTHER INCOME (Amount in ₹)

	For the Year ended	31.03.2024	31.03.2023
132	Doubtful debts	0.00	0.00
133	Doubtful Loans, Advances and Claims	0.00	0.00
134	Doubtful Construction Advances	0.00	0.00
135	Shortage in Construction Stores	0.00	0.00
136	Shortage in Stores	0.00	0.00
137	Obsolescence in Stores	0.00	0.00
138	Unserviceable capital works	0.00	0.00
139	Other Obligation including Arbitration	0.00	0.00
140	Shortage in Fixed Assets	118,100.22	0.00
141	Diminution in value of Investment	0.00	0.00
142		0.00	0.00
143		0.00	0.00

PAWAN DEV
Deputy General Manager (Commercial)
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 42 TO THE FS--FUEL COST (Amount in ₹)

	For the Year ended	31.03.2024	31.03.2023
001	**FUEL COST**	**0.00**	**0.00**
002	Coal	0.00	0.00
003	Captive	30,124,666,809.69	22,410,227,921.92
004	Other than captive	0.00	0.00
005	Gas	0.00	0.00
006	Naptha	0.00	0.00
007	Oil	0.00	0.00
008	Biomass Pellets & Others	0.00	0.00
009		0.00	0.00
010		0.00	0.00
011	**Total**	**30,124,666,809.69**	**22,410,227,921.92**
012		0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 43 TO THE FS--EMPLOYEE BENEFITS EXPENSE (Amount in ₹)

	For the Year ended	31.03.2024	31.03.2023
001	**EMPLOYEE BENEFITS EXPENSE**	**0.00**	**0.00**
002	Salaries and wages	647,913,390.45	520,245,616.96
003	Contribution to provident and other funds	81,770,424.75	62,658,686.56
004	Unwinding of deferred payroll expense	2,951,938.51	4,295,313.03
005	Staff welfare expenses	106,337,862.16	104,416,821.79
006	Less : Expenses transferred to Consultancy group	0.00	0.00
007		0.00	0.00
008	**Sub Total**	**738,973,615.87**	**691,816,638.34**
009	Less: Employee benefits expense allocated to fuel inventory	154,279,133.30	192,373,822.49
010	Less: Transferred/Allocated to development of coal mines - Note 47A	2,266,592.98	18,054,190.95
011	Less: Others	0.00	0.00
012	Less: Transferred to fly ash utilisation reserve fund	0.00	0.00
013	Less: Transferred to CSR Expenses	0.00	0.00
014	Reimbursements for employees on secondment	1,327,950.00	1,407,089.00
015	Less: Transferred to expenditure during construction period (net)- Note 47	0.00	0.00
016	Less: Transfer to Govt of Jharkhand A/c as recoverable	0.00	0.00
018		0.00	0.00
019	**TOTAL**	**581,080,029.59**	**479,981,532.90**
020	**Managerial Remuneration paid/ payable to Directors included above (except for Directors fee which is included in Note 42)**	**0.00**	**0.00**
021	Salaries and wages	0.00	0.00
022	Contribution to provident and other funds	0.00	0.00
023	Staff welfare expenses	0.00	0.00
024	Directors fee	0.00	0.00
025		0.00	0.00

पवन देव जायसवाल/PAWAN DEV JAISWAL
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 44 TO THE FS--FINANCE COSTS

(Amount in ₹)

	For the Year ended	31.03.2024	31.03.2023
001	**FINANCE COSTS**	**0.00**	**0.00**
002	Finance charges on financial liabilities measured at amortised cost	0.00	0.00
003	Bonds	985,482,317.85	896,106,748.60
004	Government of India Loans	0.00	0.00
005	Foreign currency term loans	10,389,072.55	0.00
006	Rupee term loans	1,221,995,215.00	984,036,914.00
007	Public deposits	0.00	0.00
008	Foreign currency bonds/notes	0.00	0.00
009	Cash Credit	0.00	0.00
010	Unwinding of discount on account of vendor liabilities	236,392,387.82	304,176,427.68
011	Commercial Papers	0.00	0.00
012	**Sub Total**	**2,454,258,993.22**	**2,184,322,099.28**
013	Interest on non financial items	174,477,414.00	0.00
014	**Other Borrowing Costs**	**0.00**	**0.00**
015	Bonds servicing & public deposit exp.	1,178,171.40	816,052.16
016	Guarantee fee	0.00	0.00
017	Management fee	0.00	0.00
018	Committ charges/exposure premium	0.00	0.00
019	Bond issue expenses	0.00	0.00
020	Legal exp on foreign currency loans	0.00	0.00
021	Foreign currency bonds/notes exp.	0.00	0.00
022	Up-front fee	0.00	0.00
023	Insurance premium on foreign currency loans	0.00	0.00
024		0.00	0.00
025	Others	0.00	0.00
026	**Sub Total (Other Borrowing cost)**	**175,655,585.40**	**816,052.16**
027		0.00	0.00
028	**Exchange differences regarded as an adjustment to borrowing costs**	**0.00**	**0.00**
029	**Sub Total**	**2,629,914,578.62**	**2,185,138,142.44**
030	Less: Transferred to Expenditure during construction period (net) - Note 47	0.00	0.00
031	Less: Transferred to development of coal mines-Note 47A	226,330,388.00	370,642,941.00
032		0.00	0.00
034	**Total**	**2,403,584,190.62**	**1,814,495,201.44**

Locked: 28.04.2024 - 20:58:35
Run on: 28.04.2024 - 21:00:07 Version: 0

1297

Page 1 of 1

PAKRI BARWADIH COAL MINE

NOTE NO. 45 TO THE FS--DEPRECIATION, AMORTIZATION AND IMPAIRMENT EXPENSES (Amount in ₹)

	For the Year ended	31.03.2024	31.03.2023
001	**Depreciation, amortization and impairment expenses**	**0.00**	**0.00**
002	On property, plant and equipment- Note 2	1,830,776,174.92	1,944,403,569.95
003	On investment property- Note 2A	0.00	0.00
004	On intangible assets- Note 4	8,320,305.41	3,778,814.80
005		0.00	0.00
006	Sub-total	1,839,096,480.33	1,948,182,384.75
007	Less:	0.00	0.00
008	Allocated to fuel inventory	793,741,054.36	1,190,120,595.62
009	Transferred to Expenditure during Construction Period (net)- Note 47	0.00	0.00
010		0.00	0.00
011	Transferred/Allocated to development of coal mines - Note 47A	0.00	0.00
012	Adjustment with deferred revenue from deferred foreign currency fluctuation	0.00	0.00
013		0.00	0.00
015	**Total**	**1,045,355,425.97**	**758,061,789.13**

पवन देव जागरण/PAWAN DEV [illegible]
उप महाप्रबन्धक (Dep. General Manager)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 46 TO THE FS--OTHER EXPENSE (Amount in ₹)

	For the Year ended	31.03.2024	31.03.2023
001	**OTHER EXPENSES**	**0.00**	**0.00**
002	Power charges	403,523,109.00	289,885,850.00
003	Less: Recovered from contractors & employees	253,775,885.80	210,061,421.51
004	**Sub-Total(Power Charges)**	**149,747,223.20**	**79,824,428.49**
005	Water charges	0.00	0.00
006	Stores consumed	313.46	-294,825.38
007	Rent	1,979,563.00	2,240,152.00
008	Less:Recoveries	0.00	0.00
009	**Sub-Total (Rent)**	**1,979,563.00**	**2,240,152.00**
010	Cost of captive coal produced	26,931,817,843.32	20,820,978,331.60
011	**Repairs & maintenance**	**0.00**	**0.00**
012	Buildings	4,493,021.58	8,575,055.28
013	Plant & machinery	0.00	0.00
014	Power stations	197,679,701.70	221,530,253.37
015	Construction equipment	546,422.72	2,294,225.75
016	Others	268,558,260.30	96,687,884.15
017	**Sub-total (Repairs & maintenance)**	**471,277,406.30**	**329,087,418.55**
019	Load Dispatch Center Charges	0.00	0.00
021	Insurance	40,318,929.00	7,683,881.00
022	Interest to beneficiaries	0.00	0.00
023	Rates and taxes	51,866,977.13	25,804,756.89
024	Water cess & environment protection cess	0.00	0.00
025	Training & recruitment expenses	1,805,858.00	1,701,290.55
026	Less: Receipts	0.00	0.00
027	**Sub-total (Training and recruitment expenses)**	**1,805,858.00**	**1,701,290.55**
028	Communication expenses	11,744,652.68	9,910,023.63
029	Inland Travel	32,790,673.49	27,646,749.61
030	Foreign Travel	0.00	851,598.43
031	Tender expenses	102,900.00	0.00
032	Less: Receipt from sale of tenders	42,372.90	0.00
033	**Sub-total (Tender expenses)**	**60,527.10**	**0.00**
034	Payment to auditors	0.00	0.00
035	Audit fee	0.00	0.00
036	Tax audit fee	0.00	0.00
037	Other services	0.00	0.00
038	Reimbursement of expenses	0.00	0.00
039	**Sub-total (Payment to Auditors)**	**0.00**	**0.00**
040	Advertisement and publicity	5,286,714.00	4,080,456.60
041	Electricity duty	0.00	0.00
042	Security expenses	234,038,215.50	142,313,921.11
043	Entertainment expenses	9,405,638.23	5,239,822.17
044	Expenses for guest house	4,887,002.93	3,813,382.74
045	Less:Recoveries	20,991.00	19,668.90
046	**Sub-Total (Guest house expenses)**	**4,866,011.93**	**3,793,713.84**
047	Education expenses	0.00	0.00
048	Donations	0.00	0.00

Locked: 28.04.2024 - 20:58:35
Run on: 28.04.2024 - 21:00:09 Version: 0

पवन देव जमटा/PAWAN DEV JAMTA
उप महाप्रबंधक (वित्त/Finance)
Deputy General Manager
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A&A, Sector-24, Noida-201301 (U.P.)

FAKIR BARWADIH COAL MINE

NOTE NO. 46 TO THE FS--OTHER EXPENSE **(Amount in ₹)**

	For the Year ended	31.03.2024	31.03.2023
050	Ash utilisation & marketing expenses	0.00	0.00
051	Directors sitting fee	0.00	0.00
053	Professional charges and consultancy fees	68,343,487.23	89,790,296.25
054	Legal expenses	58,690,010.00	58,046,122.00
055	EDP hire and other charges	5,229,974.78	1,925,057.00
056	Printing and stationery	2,313,476.38	2,292,426.40
057	Oil & gas exploration expenses	0.00	0.00
059	Hiring of vehicles	100,741,691.73	86,971,047.74
061	Reimbursement of L.C charges on sales realisation	0.00	0.00
062	LOSS ON FAIR VALUATION OF NON- CURRENT TRADE RECEIVABLE AT AMORTISED COST	0.00	0.00
063	Cost of Hedging	0.00	0.00
064	Derivatives MTM loss/gain (Net)	0.00	0.00
065	Net loss/(gain) in foreign currency transactions & translations	-92,943,332.92	0.00
066	Transport Vehicle running expenses	-0.04	14,114.00
067	Horticulture Expenses	3,708,603.46	1,124,679.41
068	Hire charges- helicopter/aircraft.	0.00	0.00
069	Hire charges of construction equipment	20,098,933.66	30,724,180.13
070	Demurrage Charges	0.00	0.00
072		0.00	0.00
073	Miscellaneous expenses	2,311,596,209.33	16,105,277.32
074	Loss on disposal/write-off of PPE	489,646.78	0.00
075	**Sub-Total**	**32,423,337,145.67**	**21,747,025,119.34**
076	Less: Other expenses allocated to fuel inventory	29,153,179,769.11	21,027,733,603.81
077	Less: Transferred/Allocated to development of coal mines - Note 47A	4,326,625.11	6,785,616.68
078	Less: Transferred to fly ash utilisation reserve fund	0.00	0.00
079	Less: Hedging cost Net recoverable/payable from/to beneficiaries	0.00	0.00
080	Less: Others	0.00	0.00
081	Less: Transferred to CSR Expenses	0.00	0.00
082	Less:Transferred to Expenditure during Construction period(net)-Note 47	0.00	0.00
083	Less: Transfer to Govt of Jharkhand A/c as recoverable	0.00	0.00
084	**Net (Generation, Administration and Other expenses)**	**3,265,830,781.45**	**712,505,998.85**
085	Corporate Social Responsibility Expenses	1,501,411.00	15,660,298.00
086	Less: Grants-in-aid	0.00	0.00
087	**Sub-total (Corporate Social Responsibility Expenses)**	**1,501,411.00**	**15,660,298.00**
088	**Provisions**	**0.00**	**0.00**
089	Doubtful Debts	0.00	0.00
090	Doubtful loans, advances and claims	0.00	0.00
091	Doubtful Construction Advances	0.00	0.00
092	Shortage in stores	0.00	0.00

Locked: 28.04.2024 - 20:58:35
Run on: 28.04.2024 - 21:00:09 Version: II

1300

Deputy General Manager (F&A)
एन टी पी सी लिमिटेड/NTPC Limited
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 46 TO THE FS--OTHER EXPENSE (Amount in ₹)

	For the Year ended	31.03.2024	31.03.2023
093	Obsolete/Diminution in the value of surplus stores	0.00	0.00
094	Shortage in construction stores	0.00	0.00
095	Dimunition in value of long term investments	0.00	0.00
096	Shortage in Fixed assets	46,934.46	0.00
097	Unfinished minimum work progress from oil & gas exploration	0.00	0.00
098	Unserviceable capital works	0.00	0.00
099	Tariff Adjustment	0.00	0.00
100	Others	0.00	0.00
101	(i) Provision for arbitration cases	0.00	0.00
102	(ii) Other provisions	0.00	0.00
103	**Total (Provisions)**	**46,934.46**	**0.00**
104		0.00	0.00
106	**Total**	**3,267,379,106.91**	**728,166,296.65**
107		0.00	0.00
108	**Breakup of miscellaneous expenses.**	**0.00**	**0.00**
110	Hire charges of office equipment	0.00	0.00
112	Operating expenses of construction equipment	0.00	0.00
113	Operating expenses of D.G. sets	4,056,567.70	0.00
114	Furnishing expenses	813,472.79	226,527.66
115	Subscription to trade and other associations.	0.00	9,599.00
117	Visa and entry permit charges	0.00	0.00
118	Tree plantation exp.-NTPC Land	285,011.33	0.00
119	Research & development expenses .	0.00	968,780.00
120	Less : Grants received for Research & develoment expenses.	0.00	0.00
121	Sub-total (Research & development expenses)	0.00	968,780.00
122	Bank charges	5,898,637.89	4,664.26
123	Business Development Expenditure	0.00	0.00
124	Surcharge (NVVN)	0.00	0.00
125	Power Trading Expenses	0.00	0.00
126	Brokerage & commission	3,000.00	0.00
130	Books and periodicals	144,724.00	119,671.00
131	Claims/advances written off	0.00	0.00
132	Stores written off	0.00	0.00
133	Survey &Investigation expenses written off	0.00	0.00
134	Others	2,300,394,795.82	14,775,835.40
135	**Total**	**2,311,596,209.33**	**16,105,277.32**
136		0.00	0.00
137		0.00	0.00
138		0.00	0.00

पवन देव जांगड़/PAWAN DEV JANGID
उप महाप्रबंधक (कॉन्ट्रेक्ट)
Deputy General Manager (Contracts)
पक्रि बा को सिविल/NTPC LTD / CD
EOC, A&A, Sector-24, Noida-201301 (U.P.)

Locked: 28.04.2024 - 20:58:35
Run on: 28.04.2024 - 21:00:09 Version: 0

1301

PAKRI BARWADIH COAL MINE

NOTE NO. 47 TO THE FS--EXPENDITURE DURING CONSTRUCTION PERIOD (NET) (Amount in ₹)

	For the Year ended	31.03.2024	31.03.2023
001	**EXPENDITURE DURING CONSTRUCTION PERIOD (NET)**	**0.00**	**0.00**
002	A. Employee benefits expense	0.00	0.00
003	Salaries and wages	0.00	0.00
004	Contribution to provident and other funds	0.00	0.00
005	Unwinding of deffered payroll expenses	0.00	0.00
006	Staff welfare expenses	0.00	0.00
007	**Total (A)**	**0.00**	**0.00**
008	**B. Finance Costs**	**0.00**	**0.00**
009	Finance charges on financial liabilities measured at amortised cost	0.00	0.00
010	Bonds	0.00	0.00
011	Foreign currency term loans	0.00	0.00
012	Rupee term loans	0.00	0.00
013	Foreign currency bonds/notes	0.00	0.00
014	Unwinding of discount on account of vendor liabilities	0.00	0.00
015	Others	0.00	0.00
016		0.00	0.00
017	Other Borrowings Costs	0.00	0.00
018	Guarantee Commission	0.00	0.00
019	Management Fees/Arrangers Fees	0.00	0.00
020	Commitment charges/Exposure Premium	0.00	0.00
021	Legal Expenses on foreign currency loans	0.00	0.00
022	Foreign currency bonds/notes expenses	0.00	0.00
023	Foreign Credit Insurance Premium	0.00	0.00
024	Upfront Fee	0.00	0.00
025	Exchange Differences	0.00	0.00
026	Others	0.00	0.00
027	Exchange differences regarded as adjustment to interest cost	0.00	0.00
028	**Total (B)**	**0.00**	**0.00**
029		0.00	0.00
030	C. Depreciation and amortisation	0.00	0.00
031	**D. Generation , administration and other expenses**	**0.00**	**0.00**
032	Power charges	0.00	0.00
033	Less: Recovered from contractors & employees	0.00	0.00
034	**Sub-total(Net power charges)**	**0.00**	**0.00**
035	Water charges	0.00	0.00
036	Rent	0.00	0.00
037	Repairs & maintenance	0.00	0.00
038	Buildings	0.00	0.00
039	Construction equipment	0.00	0.00
040	Others	0.00	0.00
041		0.00	0.00
042	Insurance	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 47 TO THE FS--EXPENDITURE DURING CONSTRUCTION PERIOD (NET) (Amount in ₹)

	For the Year ended	31.03.2024	31.03.2023
043	Rates and taxes	0.00	0.00
044	Communication expenses	0.00	0.00
045	Travelling expenses	0.00	0.00
046	Tender expenses	0.00	0.00
047	Less: Income from sale of tenders	0.00	0.00
048	**Sub-total (Net tender expenses)**	**0.00**	**0.00**
049	Advertisement and publicity	0.00	0.00
050	Security expenses	0.00	0.00
051	Entertainment expenses	0.00	0.00
052	Guest house expenses	0.00	0.00
053	Less: Receipt from guest house	0.00	0.00
054	**Sub-total (Net Guest House Expenses)**	**0.00**	**0.00**
055	Education expenses	0.00	0.00
056	Brokerage & Commission	0.00	0.00
057	Books and periodicals	0.00	0.00
058	Community development expenses	0.00	0.00
059	Professional charges and consultancy fee	0.00	0.00
060	Legal expenses	0.00	0.00
061	EDP Hire and other charges	0.00	0.00
062	Printing and stationery	0.00	0.00
063	Miscellaneous expenses	0.00	0.00
064	**Total (D)**	**0.00**	**0.00**
065	**Total (A+B+C+D)**	**0.00**	**0.00**
066	**E. Less: Other Income**	**0.00**	**0.00**
067	Interest from	0.00	0.00
068	Indian banks	0.00	0.00
069	Foreign banks	0.00	0.00
070	Others	0.00	0.00
071	Contractors	0.00	0.00
072	Hire charges	0.00	0.00
073	Sale of scrap	0.00	0.00
074	Exchange Differences	0.00	0.00
075	Miscellaneous income	0.00	0.00
076	**TOTAL (E)**	**0.00**	**0.00**
077	F. Net actuarial gain/loss OCI	0.00	0.00
078		0.00	0.00
079	**GRAND TOTAL (A+B+C+D-E+F)**	**0.00**	**0.00**
080		0.00	0.00
081	*** Balance carried to Capital Work-in-progress - (Note 3)**	**0.00**	**0.00**

पवन देव जायसवाल/PAWAN DEV JAISWAL
उप महाप्रबंधक (वाणिज्य)
Deputy General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 47A TO THE FS--EDC- COAL MINING (Amount in ₹)

	For the Year ended	31.03.2024	31.03.2023
001	**EDC- Coal Mining**	**0.00**	**0.00**
002	A. Employee benefits expense	0.00	0.00
003	Salaries and wages	1,874,883.20	15,019,316.35
004	Contribution to provident and other funds	366,398.43	1,707,095.38
005	Unwinding of deffered payroll expenses	0.00	0.00
006	Staff welfare expenses	45,221.35	1,327,782.22
007	**Total (A)**	**2,286,502.98**	**18,054,193.95**
008	**B. Finance Costs**	**0.00**	**0.00**
009	Finance charges on financial liabilities measured at amortised cost	0.00	0.00
010	Bonds	100,603,200.00	174,403,920.00
011	Foreign currency term loans	0.00	0.00
012	Rupee term loans	125,727,188.00	196,239,021.00
013	Foreign currency bonds/notes	0.00	0.00
014	Unwinding of discount on account of vendor liabilities	0.00	0.00
015	Others	0.00	0.00
016		0.00	0.00
017	Other Borrowings Costs	0.00	0.00
018	Guarantee Commission	0.00	0.00
019	Management Fees/Arrangers Fees	0.00	0.00
020	Commitment charges/Exposure Premium	0.00	0.00
021	Legal Expenses on foreign currency loans	0.00	0.00
022	Foreign currency bonds/notes expenses	0.00	0.00
023	Foreign Credit Insurance Premium	0.00	0.00
024	Upfront Fee	0.00	0.00
025	Exchange Differences	0.00	0.00
026	Others	0.00	0.00
027	Exchange differences regarded as adjustment to interest cost	0.00	0.00
028	**Total (B)**	**226,330,388.00**	**370,642,941.00**
029		0.00	0.00
030	C. Depreciation and amortisation	0.00	0.00
031	**D. Generation , administration and other expenses**	**0.00**	**0.00**
032	Power charges	0.00	0.00
033	Less: Recovered from contractors & employees	0.00	0.00
034	**Sub-total(Net power charges)**	**0.00**	**0.00**
035	Water charges	0.00	0.00
036	Rent	0.00	0.00
037	Repairs & maintenance	0.00	0.00
038	Buildings	0.00	0.00
039	Construction equipment	0.00	0.00
040	Others	0.00	4,202,658.66
041	Cost of Captive Coal	4,183,062.00	0.00
042	Insurance	0.00	0.00
043	Rates and taxes	0.00	4,507.50

Locked: 28.04.2024 - 20:58:35
Run on: 28.04.2024 - 21:00:10 Version: 0

1304

Page 1 of 2

PAKRI BARWADIH COAL MINE

NOTE NO. 47A TO THE FS--EDC- COAL MINING **(Amount in ₹)**

	For the Year ended	31.03.2024	31.03.2023
044	Communication expenses	0.00	253,554.16
045	Travelling expenses	86,245.51	749,944.59
046	Tender expenses	0.00	0.00
047	Less: Income from sale of tenders	0.00	0.00
048	**Sub-total (Net tender expenses)**	**0.00**	**0.00**
049	Advertisement and publicity	0.00	0.00
050	Security expenses	0.00	0.00
051	Entertainment expenses	0.00	45,999.99
052	Guest house expenses	0.00	0.00
053	Less: Receipt from guest house	0.00	0.00
054	**Sub-total (Net Guest House Expenses)**	**0.00**	**0.00**
055	Education expenses	0.00	0.00
056	Brokerage & Commission	0.00	0.00
057	Books and periodicals	0.00	0.00
058	Community development expenses	0.00	0.00
059	Professional charges and consultancy fee	40,120.00	970,904.00
060	Legal expenses	0.00	0.00
061	EDP Hire and other charges	0.00	0.00
062	Printing and stationery	0.00	43,966.00
063	Miscellaneous expenses	17,197.60	514,083.72
064	**Total (D)**	**4,326,625.11**	**6,785,616.68**
065	**Total (A+B+C+D)**	**232,943,516.09**	**395,482,751.63**
066	**E. Less: Other Income**	**0.00**	**0.00**
067	Interest from	0.00	0.00
068	Indian banks	0.00	0.00
069	Foreign banks	0.00	0.00
070	Others	0.00	0.00
071	Contractors	0.00	0.00
072	Hire charges	0.00	0.00
073	Sale of scrap	0.00	0.00
074	Exchange Differences	0.00	0.00
075	Miscellaneous Income	0.00	3,050.00
076	**TOTAL (E)**	**0.00**	**3,050.00**
077	F. Net actuarial gain/loss OCI	-25,231.13	-16,155.86
078		0.00	0.00
079	**GRAND TOTAL (A+B+C+D-E+F)**	**232,918,284.96**	**395,463,545.77**
080		0.00	0.00
081	*** Balance carried to Capital Work-in-progress - (Note 3)**	**232,918,284.96**	**395,463,545.77**

पवन देव वशिष्ठ/PAWAN DEV VASISTA
उप महाप्रबंधक (कंपनीसचिव)
Deputy General Manager (Company Sec.)
एन.टी.पी.सी लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 48A TO THE FINANCIAL STATEMENTS (Amount in ₹)

	As at	31.03.2024	31.03.2023
001	Balance sheet	0.00	0.00
002	Freehold land for which conveyancing of the title is awaiting completion of legal formalities	0.00	0.00
003	(a) area (in acres)	531.53	601.05
004	(b) value (in rs)	2,469,645,410.00	2,340,259,410.00
005	Right-of-use land for which execution of lease deed is awaiting completion of legal formalities	0.00	0.00
006	(a) area (in acres)	0.00	0.00
007	(b) value (in rs)	0.00	0.00
008	Right-of-use land acquired on perpetual lease and accordingly not amortised	0.00	0.00
009	(a) area (in acres)	0.00	0.00
010	(b) value (in rs.)	0.00	0.00
011	Land in physical possession of the company which has not been shown in the books pending settlement of price (in acres)	0.00	0.00
012	Deposit with government authorities towards land in possession of the company included in cost of land which is subject to adjus	0.00	0.00
013	**Land not in possession of the company**	**0.00**	**0.00**
014	(a) area (in acres)	0.00	0.00
015	-Freehold	0.00	0.00
016	-Right of Use	0.00	0.00
017	(b) value (in rs)	0.00	0.00
018	-Freehold	0.00	0.00
019	-Right of Use	0.00	0.00
020	Right-of-use buildings pending completion of legal formalities - value (in rs.)	0.00	0.00
021	Estimated amount of contracts remaining to be executed on capital account and not provided for	0.00	0.00
022	Property, plant & equipment	5,337,067,370.00	6,578,277,980.00
023	Intangible assets	0.00	0.00
024	Details of precommissioning expenditure	0.00	0.00
025	(a) precommissioning expenses	0.00	0.00
026	(b) precommissioning income	0.00	0.00
027	(c) net precommissioning expenditure	0.00	0.00
028		0.00	0.00
029		0.00	0.00
030		0.00	0.00
031	Exchange rate variation taken to revenue during the year (with -ve sign, if favourable)	0.00	0.00
045	Exchange rate variation capitalised during the year (with -ve sign, if favourable)	0.00	0.00
064	Short Term Leases	0.00	0.00
065	A) Rent	0.00	0.00
066	Company lease accomodation - executives	499,232.00	590,279.00
067	Company lease accomodation - directors	0.00	0.00
068	Others	1,979,803.00	2,240,152.00

(Amount in ₹)

	As at	31.03.2024	31.03.2023
099	**Total**	**2,478,795.00**	**2,839,431.00**
101	Borrowing cost capitalised during the year	226,330,388.00	370,642,941.00
102	Revenue grants recognized during the year	0.00	0.00
103	Revenue expenditure on research and development	0.00	0.00
104	Capital expenditure on research and development.	0.00	0.00
105	Expenditure on sustainibility development - capital	0.00	0.00
106	Expenditure on csr- capital	0.00	0.00
107	Opening balance - CSR Liability	0.00	0.00
108	Paid/Adjusted during the Year out of Opening above	0.00	0.00
109	Amount yet to be paid against Cr Year CSR Exp	0.00	0.00
110	Closing Balance CSR- Liability (110)	0.00	0.00
111		0.00	0.00
112		0.00	0.00
113	**Disclosure under msmed act 2006.**	**0.00**	**0.00**
114	Long-term	0.00	0.00
115	Short-term	-42,968,504.47	-19,165,193.96
116	**(i) (a) the principal amount remaining unpaid as at year end**	**-42,968,504.47**	**-19,165,193.96**
117	(i) (b) interest due there on remaining unpaid as at Year end	0.00	0.00
118	(ii) the amount of interest paid by the buyer in terms of section 16, along with the amounts of the payment made to the supplier	0.00	0.00
119	(iii) the amount of interest due and payable for the period of delay in making payment(which has been paid but beyond the appoin	0.00	0.00
120	(iv) the amount of interest accrued and remaining unpaid at the end of the year; and	0.00	0.00
121	(v) the amount of further interest remaining due and payable even in the succeeding years, until such date when the interest due	0.00	0.00
122	Amount of inventories recognized as an expense (including fuel)	30,152,202,428.23	22,490,358,747.88
123	Amount of inventories capitalised as overhauling assets out of 122 above	0.00	0.00
124	Amount capitalised as edc out of 122 above	0.00	0.00
133	Value of Imported Material Consumed during the Year	0.00	0.00
134		0.00	0.00
135	Contingent liabilities	0.00	0.00
136	A. Claims against the company not acknowledged as debts in respect of :	0.00	0.00
137	(i)Capital works	21,368,170,000.00	13,671,070,000.00
138	(ii)Land compensation cases	2,855,000.00	2,855,000.00
139	(iii)Others by state authorities towards:-	0.00	0.00
140	(a) Water royalty / water charges / nala tax	0.00	0.00
141	(b) Diversion of land / building permission fees	0.00	0.00

PAKRI BARWADIH COAL MINE

NOTE NO. 48A TO THE FINANCIAL STATEMENTS

(Amount in ₹)

	As at	31.03.2024	31.03.2023
142	(c) Other demands by state authorities	0.00	0.00
143	(iv) Others by fuel companies	0.00	0.00
144	(a) Disputes related to grade slippage-third party sampling	0.00	0.00
145	(b) Surface transportation charges on coal	0.00	0.00
146	(c) Take or pay claim - Gas stations	0.00	0.00
147	(d) Other claims by fuel companies not acknowledged as debt	0.00	0.00
149	B.Disputed tax demands	0.00	0.00
150	(i) Income tax	0.00	0.00
151	(ii) Excise duty	0.00	0.00
152	(iii) Sales tax	0.00	0.00
153	(iv) Service tax/GST	0.00	0.00
154	(v) Entry tax	0.00	0.00
155	C. Others	4,529,896,116.00	567,183,184.00
156	**Total**	**25,899,861,116.00**	**14,241,108,184.00**
157	D. Possible reimbursement on account of contingent liabilities	0.00	0.00
158	(i) Capital works	0.00	0.00
159	(ii)Land compensation cases	0.00	0.00
160	(iii)Others (by state authorities)	0.00	0.00
161		0.00	0.00
162	(iv) Others by fuel companies	0.00	0.00
163	(v) Disputed income tax demand	0.00	0.00
164	(vi) Disputed tax demands -others	0.00	0.00
165	(vii) Others	0.00	0.00
167	**Total**	**0.00**	**0.00**
168	E.AMOUNT PAID UNDER PROTEST/ADJUSTED BY AUTHORITIES - TAX CASES	0.00	0.00
169	F.CONTINGENT ASSETS	0.00	0.00
170	Intangible under development : less than 1 year	0.00	0.00
171	Intangible under development #: 1-2 year	0.00	0.00
227	Intangible under development #: 2-3 year	0.00	0.00
277	Intangible under development #: More than 3 years	0.00	0.00
278	**Capital-Work-in Progress (CWIP)**	**0.00**	**0.00**
279	Projects in progress	4,198,377,633.03	2,389,203,555.46
280	Projects temporarily suspended	0.00	0.00
281		0.00	0.00
282		0.00	0.00
283	**Projects in progress**	**0.00**	**0.00**
284	Less than 1 year	2,474,991,594.99	2,068,617,683.72
285	1-2 years	1,473,002,572.71	57,720,322.73
286	2-3 years	224,644,889.24	26,139,006.74
287	More than 3 years	25,738,576.09	216,726,542.27
288	**Sub Total (I)**	**4,198,377,633.03**	**2,389,203,555.46**
289		0.00	0.00

Locked: 29.04.2024 - 20:58:37
Run on: 29.04.2024 - 21:01:06 Version: 0

1308

Deputy General Manager (F)
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

PAKRI BARWADIH COAL MINE

NOTE NO. 48A TO THE FINANCIAL STATEMENTS **(Amount in ₹)**

	As at	31.03.2024	31.03.2023
290	**Projects temporarily suspended**	**0.00**	**0.00**
291	Less than 1 year	0.00	0.00
292	1-2 years	0.00	0.00
293	2-3 years	0.00	0.00
294	More than 3 years	0.00	0.00
295	**Sub Total (II)**	**0.00**	**0.00**
299		0.00	0.00
360	Previous year figures have been regrouped/rearranged wherever necessary.	0.00	0.00

Locked: 28.04.2024 - 20:58:37
Run on: 28.04.2024 - 21:01:06 Version: 0

1309

FORM-1

1.	Name of the Petitioner/Applicant	NTPC Limited
2.	Address of the Petitioner/Applicant	NTPC Bhawan, SCOPE Complex, Institutional Area, Lodhi Road, New Delhi – 110003
3.	Subject Matter	Petition Under Section 62 and 79 (1) (a) of the Electricity Act, 2003 read with Chapter-III of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 and Regulation-13 (1a) of CERC (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2019 for revision of input price of coal supplied from Pakri Barwadih mine for the period from date of commercial operation i.e. 01.04.2019 to 31.03.2024 after the truing up exercise.
4.	Petition No., or Application No, if any	Petition No._____/MP/2024
5.	Details of generation assets (a) Generating station/units (b) Capacity in MW (c) Date of commercial operation (d) Period for which fee paid (e) Amount of fee paid (f) Surcharge, if any	NA
6.	Details of transmission assets (a) Transmission line and sub-stations (b) Date of commercial operation (c) Period for which fee paid (d) Amount of fee paid (e) Surcharge, if any	NA
7.	Fee paid for Adoption of tariff for (a) Generation asset (b) Transmission asset	NA
8.	Application fee for licence (a) Trading licence (b) Transmission licence (c) Period for which paid (d) Amount of fee paid	NA

पाल बैंक लिमिटेड/PAWAN
उप महाप्रबंधक (वित्त)
Dy. General Manager (Cost)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

FORM-1

9.	Fees paid for Miscellaneous Petition	Rs. 3,00,000/-
10.	Fees paid for Interlocutory Application	NA
11.	Fees paid for Regulatory Compliance Petition	NA
12.	Fees paid for Review Application	NA
13.	Licence fees for inter-State Trading (a) Category (b) Period (c) Amount of fee paid (d) Surcharge, if any	NA
14.	Licence fees for inter-State Transmission (a) Expected/Actual transmission charge (b) Period (c) Amount of fee calculated as a percentage of transmission charge. (d) Surcharge, if any	NA
15.	Annual Registration Charge for Power Exchange/OTC Platform (a) Period (b) Amount of turnover (c) Fee paid (d) Surcharge, if any	NA
16.	Details of fee remitted (a) Transaction id, Reference No./ Payment id (b) Date of remittance (c) Amount remitted	9dd69dc05e3d5c47707b 19.11.2024 Rs. 3,00,000/-
Note: While Sl.No.1 to Sl. No.3 and Sl. No.16 are compulsory, the rest may be filled up as applicable		

27.11.2024

Signature of the authorized signatory with date

पवन देव जायसवाल/PAWAN DEV JAISWAL
उप महाप्रबंधक (वाणिज्यिक)
Deputy General Manager (Commercial)
एन.टी.पी.सी. लिमिटेड/NTPC LIMITED
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Fee Acknowledgement

Counterfoil (Office Copy)

		Transaction Id.:	9dd69dc05e3d5c47707b
Reference No.:	1011/2024	**Payment Gateway ID:**	6726619112402489831
		Status:	success
Received From :	NTPC Limited		
The Sum of Rs. :	300000		
Fee Type:	Petition Filing Fees	**Dated :**	Nov 19, 2024, 5:30 PM
Fee Mode:	Net Banking		
Fee Period:			
Petitioner/ Organisation Name:	NTPC Limited		

General Manager (Com.)
EDC, A-8A, Sector-24, Noida-201301 (U.P.)

Nov 20, 2024, 1:30 AM