



PARTICULARS REQUIRED UNDER THE COMPANIES (DISCLOSURE OF PARTICULARS IN THE REPORT OF THE BOARD OF DIRECTORS) RULES, 1988:

A. CONSERVATION OF ENERGY

a) Energy conservation measures taken :

Some of the important energy conservation measures taken during the year 2008-2009 in different areas are as under:

ENERGY AUDITS

During the year 2008-09, 104 in-house energy audits in the areas of auxiliary power consumption, water balance, cooling water system, compressed air, coal handling plant, MGR, Lub Oil System, Air Conditioning, Ash handling system, GT Compressors, GT open cycle efficiency, WHRB performance, lighting etc. were carried out at different stations of NTPC. During the year, NTPC has successfully completed external energy audit of combined cycle power plant of Puducherry Power Corporation, Puducherry.

Till now 194 executives of NTPC have passed Energy Auditors Examination of Bureau of Energy Efficiency to become Certified Energy Auditors / Managers.

The details of various measures taken during the year under various heads of energy conservation are as below:-

AUXILIARY POWER CONSUMPTION

Replacement of inefficient BFP cartridges, overhauling of BFPs and attending of recirculation valves of BFPs at Korba, Vindhyachal, Kawas, Kahalgaon, Dadri Gas, Dadri Coal, Kayamkulam, etc, Application of efficiency improvement coating on cooling water pump internals at Kawas, Draft power reduction by attending flue gas duct, air duct, APH seal adjustment and reducing PA header pressure at Tanda, Vindhyachal, Talcher Kaniha, Kahalgaon, Badarpur, Dadri Coal, Unchahar etc, Coal mill liner replacements, mill overhauling to reduce specific power consumption at Vindhyachal, Rihand, Singrauli, Unchahar, etc, Installation of FRP blades in HVAC cooling towers and Fin fan Coolers at Kawas, Optimized running of LPBFP/ HPBFP at Auraiya, Gandhar, etc Optimization of operation of CW pumps, ARCW pumps & Cooling Tower Fans at Anta, Tanda, Vindhyachal, Talcher Kaniha, Korba, Rihand, Auraiya, Singrauli, Simhadri, Kahalgaon, etc., Optimizing ash - water ratio at Talcher Kaniha, Running of efficient ash water recirculation pumps in place of inefficient pumps at Talcher Kaniha, Reduction in pressure setting of compressed air at Faridabad, Maintaining optimum DP across Feed Regulating Station at Korba, Reduced running of Fly ash water pumps, HP/LP water pumps at Kahalgaon, Dadri coal, Rihand, Singrauli, etc, External cleaning of Heat exchangers by steam jetting at Kawas, Replacement of standard motors with energy efficient motors at Kawas, Optimizing ESP power through charge ratio at Badarpur, External cleaning of boiler for efficiency improvement at Dadri gas, are some of the measures taken to reduce APC.

LIGHTING

Installation of timer switches in plant and township lighting at Simhadri, Replacement of conventional GLS lamps and conventional FTLs with CFLs at Kawas, Badarpur, Kahalgaon, Singrauli etc, Lighting voltage optimization by tap adjustment at Ramagundam, Optimising lighting load at Gandhar, Installation of energy savers in lighting circuits at Badarpur, Unchahar etc

HEAT ENERGY

Repair of Thermal Insulation and cladding at Talcher Kaniha, Unchahar, Faridabad, etc, Reduction of boiler flue gas exit temp by adopting chemical cleaning of boilers at Ramagundam, Replacement of HP heaters and arresting passing at Korba and Singrauli, Cleaning of Boiler with ammonia/CO₂ at Auraiya.

FUEL OIL

FSSS Logic for ignition support modification at Simhadri

LUBRICANTS

Adoption of best practices, attending lub oil leakages and changing/toping up oil on actual condition basis at Singrauli, Recycling of used up oils for reuse at Korba.

DM WATER

Reuse of uncontaminated SWAS drains at Kawas.

MISCELLANEOUS WATER

Diversion of cooling water to service water for reuse at Unchahar, Recycling of water used for dust suppression system at Korba, Recirculation of Ash water at Korba, Reducing leakages in raw water lines and Ash water return line at Talcher Kaniha, Reuse of rinse water & blow down water for horticulture at Gandhar, Reuse of Compressor, coal crusher clarified cooling water at Korba

b) Additional investments and proposals for reduction in consumption of energy:

Provision of Rs.689 lacs has been kept in BE 2009-10 for different energy conservation schemes like:

- On-Line Energy Management System and Variable Frequency Drives
- Vapor absorption system for Air Conditioning
- Energy efficient devices in lighting.

c) Impact of measures taken for energy conservation:

Savings achieved during 2008-2009 on account of specific efforts for energy conservation:-

S.No	Area/Activities	Energy Unit	Savings	
			Qty. of units	Rs. (Million)
1	Electrical	MU	206.37	325.56
2.a	Heat Energy (equivalent MT of coal)	MT	57249	88.14
2.b	Heat Energy (equivalent MCM of Gas)	MCM	1.691	7.61
2.c	Fuel Oil	KL	200	7.00
3.a	D.M. Water	MT	6000	0.12
3.b	Miscellaneous Water	M.Cu M	32.73	67.31
4	Lubricants	KL	35.59	2.28
	Grand Total			498.02

Savings achieved during 2007-08 : Rs. 490.20 Million

B. TECHNOLOGY ABSORPTION

Efforts made towards technology as per Form-B (Form-B is enclosed)

C. FOREIGN EXCHANGE EARNINGS AND OUTGO

Activities relating to export initiative taken to increase export, development of new export markets for products and services and export plan:

Total Foreign Exchange Used/Earned		Rs. (Million)
1.	Foreign Exchange Outgo	
	a) Value of Imports calculated on CIF basis:	
	Capital Goods	10386
	Spare Parts	919
	b) Expenditure:	
	Professional and Consultancy Charges	24
	Interest	4067
	Others	601
2.	Foreign Exchange Earned	
	Consultancy	21
	Interest	14
	Others	1



FORM FOR DISCLOSURE OF PARTICULARS WITH RESPECT TO ABSORPTION OF TECHNOLOGY

1.0 Specific areas in which NETRA activities have been carried out during 2008 - 09:

- 1.1 Modeling of variable coal orifice for coal flow optimization
- 1.2 Lab scale development of technique to determine steam water ratio (online) in boiler tubes
- 1.3 Modeling and simulation of ID fan loading through extraction of moisture from flue gases
- 1.4 Studies on near zero liquid discharge from Faridabad station
- 1.5 Development of Robotic crawler for inspection of Boiler Water Wall
- 1.6 Development of Low grade heat recovery process and system for refrigeration / air-conditioning.
- 1.7 Development of Multi component Ammonia Liquor Absorption Engine (MALAE) process and System for low grade heat recovery
- 1.8 Development of Artificial intelligence based plant advisory system
- 1.9 Development of Boiler CFD model
- 1.10 Development of Ionic membrane for CO₂ capture
- 1.11 Development of Pressure Swing Absorption based CO₂ capture
- 1.12 Development of CO₂ to methane conversion
- 1.13 Development of Flue Gas Conditioning technologies
- 1.14 Failure analysis of PA fan blades at Simhadari; LP Turbine blades, Badarpur; MGR rail, Farakka; Boiler tube leakage, Singrauli; Compressor blade, Dabhol
- 1.15 Extending safe operation of super heater headers
- 1.16 Actions have been initiated for chemically cleaning the fouled PVC fills of cooling towers
- 1.17 Investigation of severe foaming in cooling waters & organic contamination in DM water
- 1.18 Post operational chemical cleaning of boiler tubes of # 3 Farakka, # 3 Singrauli, # 1 Vindhychal, # 3 Tanda, # 3 Ramagundam and # 1 Unchahar were carried out successfully under the total supervision and guidance of NETRA.
- 1.19 Environmental Appraisal of 20 stations were carried out and corrective actions have been taken by the stations based on the appraisal
- 1.20 Investigations on choking of NOx filters and poor quality of DM water. Corrective measures have been adopted by the station resulting in improvement.
- 1.21 Development of chemical cleaning procedure to prevent acid dew point corrosion, using Magnesium Hydroxide on HRSG surfaces.
- 1.22 Corrosion audit of CW system and assessment of cooling water related problems were carried out at Kahalgaon, Talcher Thermal and Talcher Kaniha, Singrauli & Vindhychal. At Farakka, assessment of condenser fouling was also done in addition to corrosion audit of CW system. Sites were appraised of the findings with recommendations.
- 1.23 Under fact finding work NETRA experts carried out inspection of nozzles, buckets, combustion liners, shrouds etc of GT #2 at Kayamkulam. Necessary recommendations had been sent to site.
- 1.24 Development of ultrasonic testing procedure for detection of service induced defects in ID fan shaft
- 1.25 Health assessment of 12 gas turbines, 6 steam turbines & boilers using advanced NDT techniques.
- 1.26 NETRA is carrying out condition monitoring of around six hundred, 400 KV Class transformers for their health
- 1.27 Over 1300 rotating equipment are being monitored regularly by NETRA for their health assessment through wear debris analysis
- 1.28 NETRA is extending scientific services to various other utilities such as Kota Super Thermal Power Plant, Lehra Mohabat Thermal Power Plant, Jindal Power Limited; Indian Airlines, PSEB, Panipat, MPPGC, RGPPL IP station, Delhi; Chandrapura, DVC; PGCIL, NHPC, Barauni Thermal Power Station, Mathura Refinery works etc for development of chemical treatment program, Coal quality and particle count of contaminants in lube oils, Quality of Cenospheres, health assessment of water wall tubes, testing of transformer oils, examination of replicas, failure investigations, etc
- 1.29 Over 7000 samples of transformer oils, boiler tube deposits, turbine blade deposits, condenser & cooling tower deposits, effluents, waters, etc have been analysed and necessary recommendations have been given.
- 1.30 Indian Institute of Science, Bangalore was appointed as Consultant for Restructuring & Strengthening of R&D Centre. Based on Consultants recommendations R&D and Energy Technology have been integrated into a single entity namely, "NTPC Energy Technology Research Alliance (NETRA)". NETRA has started functioning from Feb. 2009 and R&D laboratories and facilities are in the process of shifting to NETRA Complex at Greater Noida.

2.0 Benefits derived as a result of above Research & Technology Development:

NETRA activities as carried out have helped in increasing the availability, reliability and efficiency of the stations. Chemical treatment and corrosion control measures, NDE & life management of plant components, transformer condition assessment etc. are helping the stations in improving the efficiency, availability and life of various critical plant components. Techniques developed by NETRA are implemented at stations, which are enhancing the life of boiler & turbine components.

The timely and scientific failure analysis of various components helped in identifying the cause of failure and thus providing necessary input for taking corrective action in preventing re-occurrence of similar failures thereby increasing the availability of power plant equipment.

3.0 FUTURE PLANS

A. Technology Demonstration / Pilot Plants

1. Development and deployment of Solar HVAC demonstration plant
2. 1 MW Solar Thermal R&D Plant
3. Marine Algae to Bio Fuel
4. Pilot studies for Heat Pipe based Supplementary APH
5. Feasibility report on development of Plasma based Oil less Coal Burners
6. Artificial Neural Network based power plant operation and predictive superheated steam temperature control

B. Setup of Applied Research Laboratories

1. Robotics
2. Solar Thermal
3. Advanced Computing
4. Computational Fluid Dynamics
5. Preparation of DPR for establishment of other Laboratories of NETRA

C. Research & Technology Development Projects

1. Design of integrated biodiesel pilot unit for using 80% energy from biofruit instead of existing 15%.
2. Lab scale Design and Development of automated LTSH /Economizer tube surface inspection system
3. Feasibility study of producing methane from raw water, as a supplemental fuel to boiler
4. Development of technique for online monitoring of colloidal silica in steam water cycle
5. Demonstration of Robotic Crawler based Boiler Water Wall inspection system
6. Demonstration of Low grade heat recovery process and system for refrigeration / air-conditioning

NETRA will work on development of techniques for measurement of pollutants such as Mercury, Arsenic, low levels of SO_x, NO_x, etc as a proactive approach for more stringent environmental requirements that are anticipated. NETRA will also be working on developing schemes for recycling of waste waters from plants. NETRA will also work on reducing air-preheater seal leakage by deployment of heat pipes for APH

D. Scientific Services to Power Stations

NETRA will be working on predictive techniques for reducing forced outages such as Advanced Thermal Monitoring and Steam/Water ratio monitoring for reducing boiler tube failures, carrying out comprehensive on-line monitoring of critical rotating equipment, and conducting corrosion audits of power plants, etc. Technology Development & Scientific Support to Stations for:

- i. Reducing overhaul duration and increasing time interval between overhauls
- ii. Reducing forced outages
- iii. Cost Reduction

4.0 Expenditure of R&D

(Rs.Millions)

		2008-2009	2007-2008
a)	Capital	12	11
b)	Recurring	81	62
c)	Total	93	73
d)	Total R&D expenditure as a percentage of total turnover	0.0222%	0.0197%



5.0 Technology Absorption, Adaptation and Innovation

Particulars of some of the important technology imported during last five (5) years are as follows:

S.No.	Technology	Year	Stations
1.	Performance Analysis, Diagnostics and Optimization Software calculates the Equipment Performance and deviation and deviation from ideal conditions, together with reason for shortfall, indicating losses in Rupee terms. This package also calculates set point, which will result in optimized Heat Rate or Specific Coal consumption.	2004	Implemented in Simhadri will be continued in future Projects.
2	Super critical Technology with 247 Kg/cm ² Steam Pressure and 540/568 MS/RH steam temperature is adopted for its improvement in thermal efficiency and reduced emission of green house gasses.	2004	Being implemented at Sipat (3x660 MW), Barh (3x660MW) and Barh-II
3	Boiler Flame Analysis System (BFAS) observes the flame intensity and regulates the secondary air flow for achieving optimized combustion.	2005	Implemented in Simhadri.
4	765 KV Switchyard & associated equipments including 24KV/ 765KV Generator Step up (GSU) Transformer.	2005	Being implemented at Sipat
5	Switchyard Control & Data Acquisition (SCADA) System based on universal protocol IEC 61850.	2005	- do -

For and on behalf of the Board of Directors

(R.S. Sharma)

Chairman & Managing Director

Place: New Delhi

Dated: August 1, 2009

PARTICULARS OF EMPLOYEES PURSUANT TO SECTION 217(2A) OF THE COMPANIES ACT, 1956

1	2	3	4	5	6	7	8	9
Name	Designation and Nature of duties	Remuneration (Rs.)	Qualification	Date of Commencement of Employment	Exp. (Yrs.)	Age (Yrs.)	Last Employment held	Remarks
Employed for whole of the Year								
Bisht Basant Singh	GM (Hydro Project), CC	2477123	BE (Civil)	17.10.2005	24	53	T.H.D.C. Limited	
Mishra Dharam Deo	DGM (Civil), Barh	2962236	BE (Civil)	24.02.1981	26	60	Gammon India Ltd.	Retired
Sarin Devendra Kumar	AGM (Vig.), CC	2573917	B.Sc., LLM, MA, Dip(PMIR)	12.09.1985	39	60	ONGC	Retired
Sharma Nand Kishore	ED, CC	2586151	PG Diploma	25.05.1979	30	53	-	
Yadav Hiralal	Sr. Engr. (M.E.), Korba	2757575	Diploma in Mech	22.01.1986	23	53		
Employed for part of the Year								
Agarwal Gopal Krishna	ED (HR& PMI), CC	1781534	B.Tech., MS, PGDPM	09.09.2003	36	60	ECIL	Retired
Aggarwal K.K.	Sr. Foreman, BTPS	1107029	10th	01.01.1979	29	60	-	Retired
Babbar Satish Kumar	Asstt. Engg., Consul	1869427	Graduate	16.10.1978	30	58	-	Death
Babu M Ram	Sr. Mgr (Civil), SR-HQ	959782	Dip. In Civil	29.03.1980	28	60	-	Retired
Babu M Surendra	Manager (F), SR-HQ	624445	B.Com	06.04.1982	24	53	-	Resigned
Banoopadhyay Reeta (Ms)	GM (Contracts), CC	2962757	B.Sc (Engg), PGDBA	26.12.1978	30	60	EIL	Retired
Banerji Ashok Kumar	GM (Business Devlp), CC	2746601	BE(Electt), ME(Electt)	15.07.1981	27	60	BARC	Retired
Basu R.P	SAO, BTPS	473069	B.Com	05.01.1980	28	60	-	Retired
Batra Dinesh	Sr. Manager (CP), CC	311808	B.Sc. (Elect.) MBA	04.09.1986	22	43	JKS Ltd.	Resigned
Bharat Gobind Tekchand	AGM (C&M), CC	2925899	BSc(Engg), MBA	09.09.1983	25	60	BHEL	Retired
Bholanath Karmakar	Manager, Talchar	1203391	LCE	18.03.1983	26	60	-	Retired
Bhullar Surjit Singh	Sr. Manager (HR- ES), CC	2064056	BS (PE)	01.01.1986	35	60	CEA, IRI	Retired
Bishnu	Tech. Gr.III, BTPS	444376	-	01.04.1978	30	60	-	Retired
C.B. Dhingra	Sr. Mgr. (HR), BTPS	751857	MBA, LL.B., PGDBA, DGDPM	16.10.1980	27	60	-	Retired
Chand Lal	A.E., BTPS	1293191	ITI (A/C & Refgn), B.A.	01.04.1978	30	60	-	Retired
Chander Subhash	Sr. Driver Gr. II BTPS	964952	10th	01.04.1978	30	60	-	Retired
Chander Subhash	A.E., BTPS	1032423	ITI (Fitter)	01.04.1978	30	60	-	Retired
Chandra Subhash	CMO, CC	2467000	MBBS, MD	04.01.1979	36	60	RMMC	Retired
Chaturbuj C.A.	AGM (T.S.), Rihand	2151971	B.E. (Civil)	25.01.1979	30	60	-	Retired
Dass Arjun	Sr. Foreman (Mech), BTPS	395146	ITI Fitter	31.03.1981	27	60	-	Retired
Dev Satya	Sr. Driver, BTPS	442474	9th	01.04.1978	30	60	-	Retired
Dhar Ganga	Sr. A.E., BTPS	1453828	Dip (Mech)	01.04.1978	30	60	-	Retired
Dhusia Mohan Lal	Manager (Comm.), NR-HQ	996048	B.E. Advance Diploma (Mech. Engg.)	29.09.1986	22	60	-	Retired

Dubey T. R	Dy. Manager (F&A), SSTPS	1176996	M. Com.	18.11.1980	30	60	UPSTDCI	Retired
G. Radha Krishan	Sr. Asstt.Gr.I, BTPS	628920	10TH	17.04.1979	29	60	-	Retired
Gandhi Prem Prakash	Sr. Manager (Fin), CC	1556554	B.Sc., CA	10.05.1980	32	60	VHA	Retired
Garg R.K.	Sr. Supdt., BTPS	1518904	B Tech (Elect), PG (Buss. Admn)	28.09.1987	22	46	-	Death
Gattani Ballabh Das	DGM (SRF), Rihand	716988	B.E. (Civil)	18.12.1978	29	58	-	Resigned
Ghosh Pramathe	GM, Consul	9256216	B.E.	24.10.1977	32	60	HSL Bokaro	Retired
Gupta Deep Ranjan	Sr. Manager (HR), CC	987913	MBA, LLB, BA	23.09.1986	27	49	UC Ltd.	Resigned
Gupta Om Prakash	Sr. Material Officers, NR-HQ	1114397	B.A., PG Diploma (Material Mgt.)	01.09.1983	25	60	-	Retired
Gupta Upendra Prasad	DGM (Law), NCR-HQ	1768675	PGDM	02.06.1983	25	60	Central Bank of India	Retired
Gupta Vinay Kumar	GM (HR), NCR-HQ	2106452	PGDM	25.03.1980	28	60	HSCL	Retired
Gupta Yogendra Kumar	DGM (Fuel Mgt.), CC	2688878	B.Sc. Engg (Elect)	01.04.1978	30	60	CEA	Retired
Isac Sabu	Sr. Supdt., Simhadri	365096	ME (Elect)	01.09.1989	19	45	-	Resigned
Jain Jai Pal	Sr. Asstt. Chemist, BTPS	1266289	B.Sc.	01.04.1978	30	60	-	Retired
Jain Vimal Kumar	Sr. Supdt.(O&M), BTPS	2927995	AMIE (MECH), DIP (Mech)	01.04.1978	30	60	-	Retired
Jena Golak Bihari	Sr. Tech., Talchar	575178	ITI	03.06.1995	33	60	-	Retired
Jha Jay Prakash	DGM (Fin.), ER-I	1803871	CA	30.12.1989	19	60	TISCO	Retired
K. Lala Lajpati	Sr. A.A.O., BTPS	1529758	M.Com., LL.B.	19.04.1979	29	60	-	Retired
Kapoor Lalit Mohan	ED (CBE), CC	2041088	B.Sc (Elect)	26.11.1980	38	60	IL	Retired
Kapoor V.K.	Supdt. (O&M) BTPS	1062395	Dip (Elect)	01.04.1978	30	60	-	Retired
Katyayar Daya Nand	Dy. Mgr. (O&E), Uncharhar	684367	M. Tech	04.12.1996	12	35	-	Resigned
Khunte Tukram	AGM (APDRP- R&M), CC	2915993	BE-Mech, ME- Mech	08.04.1980	28	60	EIL	Retired
Khurana Vajinder Singh	DGM (C&M), ANTA	1630177	B.Sc., (Mech.)	03.11.1980	27	60	-	Retired
Kumar Deepak	Engineer (Material), Rihand	937170	B.A.	17.11.1981	29	60	-	Retired
Kumar Gulshan	Sr. Foreman Gr.I, BTPS	716775	ITI	01.04.1978	30	60	-	Retired
Kumar Rajeev	AGM, Consul	1069088	B.E.	10.06.1980	29	54	Desein Pvt. Ltd	Resigned
Kumar Rajesh	DGM (Ash Utilisation), CC	2438910	B.Tech(Civil), Diploma Personnel Mgt.	10.06.1981	27	54	EIL	Death
Kumar Suresh	DGM, Consul	1044502	B.E.	29.07.1984	25	45	-	Resigned
Kundu Alok Kumar	ED (Fin.), CC	1246446	M.Com., CA	26.12.2001	36	60	BHEL	Retired
Kuttappan, A.K.	Sr. Foreman Gr.I, BTPS	1088485	10th	01.01.1979	29	60	-	Retired
Lal Chummi	Sr. Store Keeper Gr.I, BTPS	1166897	10th	31.03.1981	27	60	-	Retired
Lal Pyare	Jr. Asstt., BTPS	470475	-	01.01.1979	29	60	-	Retired
Lala Kiran Kumar	Manager, Talchar	713823	DME	25.02.1983	25	60	-	Retired
Mahalingam S	AGM (ERP & IA), SR-HQ	969300	CA	11.04.1985	23	60	-	Retired

Annex- IV to Directors' Report (Contd...)

1	2	3	4	5	6	7	8	9
Name	Designation and Nature of duties	Remuneration (Rs.)	Qualification	Date of Commencement of Employment	Exp. (Yrs.)	Age (Yrs.)	Last Employment held	Remarks
Mahalo Nathuni	AGM (O&M), SSTPS	844797	B. Sc. Engg. (Mech.)	30.06.1983	31	60	NFL	Retired
Mahata G.N.	Dy. Mgr., Talchar	1113796	DCE	16.10.1979	29	60	-	Retired
Majitha Devender Singh	Mgr. (Inspection), WR-HQ	1688002	Dipl (Mech Engg.)	08.06.1981	32	60	BHEL	Retired
Malhotra S.C.	Sr. Asstt., BTPS	813032	11th	01.01.1979	29	60	-	Retired
Manchanda Subhash	GM (Env't Mgt.), CC	2826864	BE (Electl.)	16.10.1980	28	60	BHEL	Retired
Mandal Banshidhar	Opnr. Gr.I, Talchar	333768	ITI	03.06.1995	30	60	-	Death
Matto Rattan Lal	ED (Fuel Mgt.), CC	3443778	BSc. (Engg)	12.07.1984	24	60	Western Coal Fields Limited	Retired
Meghani, L.K.	Sr. P.S., BTPS	749217	B.A.	01.01.1979	29	60	-	Retired
Mittal Y.P.	CMO, BTPS	1820470	MBBS, B.Sc.	01.05.1979	29	60	-	Retired
Mohan Madan	Sr. Opt. Gr.II, BTPS	738278	ITI Mech	01.04.1978	30	60	-	Retired
Murthy K S N	AGM, Consul	1459022	B.E.	09.02.1982	27	60	-	Resigned
Nair T.K. Somasekharan	Manager (HR), RGCPP	790212	MA (IR&PM)	23.07.1980	32	60	BALCO	Retired
Ojha Bharat	Dy. Manager (C&M), BTPS	769195	PG Dip (Mat. Mgt.), B.A.	19.08.1981	26	60	-	Retired
Oswal Manna Lal	Gen. Mgr. (Commercial), WR-HQ	9929582	B.Sc. (Engg.)	28.12.1981	37	60	SAIL	Retired
Pal Gautam	DGM, Consul	982766	B.E.	27.04.1987	22	53	Chandrapur TPP	Resigned
Pal P.	Sr. Suptd. (O&M), Rihand	1802647	AMIE (Elect)	05.03.1982	27	60	-	Retired
Panda Artaran	Sr. Tech., Talchar	679782	HSE	03.06.1995	36	60	-	Retired
Pani Arabinda	Sr. Suptd., Talchar	374700	B.Sc. Engg	09.09.1987	21	45	-	Resigned
Parthiban K	AGM, Consul	867246	B.E.	12.12.1984	25	51	Neyveli Lignite Corp.	Resigned
Paticdar Shirram	GM (PIE), NCR-HQ	1655794	BE (Mech)	14.05.1984	24	60	MPSEB	Retired
Prabhakar R.B.	Manager, Simhadri	856009	B. Tech (M)	01.03.1984	24	57	-	Death
Prakash Man Mohan	Sr. Asstt. Engr (CP), CC	724305	Dip (Civil)	16.11.1979	35	60	DGAIR	Retired
Prasad Kailash	AGM (Project Coord), CC	9921020	BSc. (Engg)	30.03.1984	24	60	BHEL	Retired
Prasad Kamta	Suptd. (O&M), BTPS	1614847	Dip (Mech)	01.04.1978	30	60	-	Retired
Prasad Komal	Foreman Gr.I, BTPS	785107	10th	01.01.1979	29	60	-	Retired
Rai Jharkhandey	DGM (Safety), Unchahar	1686539	B.Sc. (Engg.)	17.05.1983	25	60	-	Retired
Raju Sivadandu Seetam	AGM (HR), WR-HQ	1797407	MBA (Personnel Mgt.)	24.12.1982	37	60	Hindustan Copper Limited	Retired
Rajya S.K.	AGM (Tech. Services), BTPS	1200357	M.Tech., MBA, B.Sc. (Engg.) (Mech)	15.05.1978	30	58	-	Pre mature Retirement
Ram Khacheru	Tech. Gr.I, BTPS	753366	8th	01.04.1978	30	60	-	Retired
Ram Krishna	Operator (T), SSTPS	926696	Matric	23.12.1980	42	60	Indian Navy	Retired

Annex- IV to Directors' Report (Contd....)

Name	Designation and Nature of duties	Remuneration (Rs.)	Qualification	Date of Commencement of Employment	Exp. (Yrs.)	Age (Yrs.)	Last Employment held	Remarks
1	2	3	4	5	6	7	8	9
Singh Om Prakash	Asstt., ER-I	698592	B.A.	01.05.1989	19	60	Indian Army	Retired
Singh Pal Chander	AGM (APDP), CC	2567440	B.Sc. (Engg)	28.11.1983	25	60	BHEL	Retired
Singh Sumendra	Sr. Supdt. (O&M), BTPS	1095423	Dip (Mech.)	01.04.1978	30	60	-	Retired
Singh Udham	Foreman Gr.I, BTPS	937442	ITI (Mech)	15.03.1979	29	60	-	Retired
Sivastava Deepak Kumar	Sr. Engr., Unchahar	994017	Diploma in Mech	06.08.1982	26	49	-	Death
Tahiliani R.S.	Sr. Foreman Gr.I (Elect), BTPS	1928613	National Trade Certificate	22.06.1979	29	60	-	Retired
Taneja.R.K.	A.E. , BTPS	1209703	ITI (A/C & Refgn)	01.04.1978	30	60	-	Retired
Unikrishanan	Sr. Foreman (Elect), BTPS	473997	ITI Elect.	01.01.1979	29	60	-	Retired
Verma Avinash Kumar	GM (Proj Coord), CC	3013607	BSc Engg (Elect)	09.11.1982	26	60	SAIL	Retired
Verma S.S.	A.O., BTPS	1258865	B.A.	01.01.1979	29	60	-	Retired
Verma Shailendra Kumar	GM (Constn), NCR-HQ	2613843	B.Sc Engg (Civil)	26.09.1980	28	60	Kudremukh Iron Ore Company Limited	Retired
Vijay K. V. R. K	DGM (CRM), SR-HQ	1098269	B. Tech	02.09.1986	22	43	-	Resigned
Vinod J. R	DGM (TRTF), CC	2793743	B.Sc (Engg),	15.02.1979	30	60	CEA	Retired
Vyas Laxmi Dutt	Sr. Manager (Fin.), CC	641046	B.Com, CA	30.12.1988	39	47	-	Resigned
Wadhwa Shyam	ED (CP&SM), CC	1291165	B.Tech. (Elect.)	21.02.1977	36	59	-	Pre mature Retirement

Notes:

- 1 Persons named above are/ were employees of the Company.
- 2 Remuneration includes salary, allowances, leave encashment, leave travel concession, payment for subsidized leased accommodation, reimbursement of medical expenses to employees and employer's contribution to Provident Fund and other funds. However, it does not include the monetary value of the medical treatment provided in the Company's dispensaries/hospitals at Project sites, since it can not be quantified employees-wise. In addition, the employees are entitled to gratuity/ group insurance in accordance with Company's Rules.
- 3 None of the employees listed above is related to any director of the company.
- 4 Remuneration mentioned above is inclusive of retirement/ separation benefits paid during the year and is not indicative of any regular remuneration structure of employees of the Company.

For and on behalf of the Board of Directors

Rajiv

(R.S. Sharma)

Chairman & Managing Director

Place: New Delhi

Dated: August 1, 2009

STATEMENT PURSUANT TO SECTION 212 OF THE COMPANIES ACT, 1956 RELATING TO SUBSIDIARY COMPANIES

NAME OF THE SUBSIDIARY	PIPAVAV POWER DEVELOPMENT COMPANY LTD.	NTPC ELECTRIC SUPPLY COMPANY LTD.	NTPC VIDYUT VAPAR NIGAM LTD.	NTPC HYDRO LTD.	KANTI BIJLEE UTPADAN NIGAM LIMITED	BHARTIYA RAIL BIJLEE COMPANY LIMITED
1. Financial year of the Subsidiary ended on	March 31, 2009	March 31, 2009	March 31, 2009	March 31, 2009	March 31, 2009	March 31, 2009
2. Date from which they became Subsidiary	December 20, 2001	August 21, 2002	November 1, 2002	December 12, 2002	September 6, 2006	November 22, 2007
3. Share of the subsidiary held by the company as on March 31, 2008 a) Number & face value b) Extent of holding	375000 equity shares of Rs. 10/- each 100%	80910 equity shares of Rs. 10/- each 100%	20000000 equity shares of Rs. 10/- each 100%	92426200 equity shares of Rs. 10/- each 100%	51000 equity shares of Rs. 10/- each 51%	18,50,00,000 equity shares of Rs 10/- each 74%
4. The net aggregate amount of the subsidiary companies Profit/(loss) so far as it concerns the member of the holding company a) Not dealt with in the holding company's accounts i) For the financial year ended March 31, 2009 ii) Upto the previous financial years of the subsidiary company b) Dealt with in the holding company's accounts i) For the financial year ended March 31, 2009 ii) For the previous financial year of the subsidiary company since they become the holding company's subsidiaries	(21,795) (37,41,675) Nil Nil	18,48,41,735 10,27,38,167 Nil Nil	49,52,57,740 1,23,83,528 Nil Nil	(10,800) (8,13,15,892) Nil Nil	(27,866) (53,350) Nil Nil	(38,91,180) (8,28,070) Nil Nil

For and on behalf of the Board of Directors



(R.S. Sharma)

Chairman & Managing Director

Place: New Delhi

Date: August 1, 2009

STATISTICAL DATA OF GRIEVANCE CASES

2008-09

S. No.	Particulars	Public Grievance Cases	Staff Grievances Cases
1.	Grievance cases outstanding at the beginning of the year	-	10
2.	Grievance cases received during the year	-	40
3.	Grievance cases disposed of during the year	-	47
4.	Grievance Cases outstanding at the end of the year	-	3

For and on behalf of the Board of Directors



(R.S. Sharma)
Chairman & Managing Director

Place : New Delhi
Dated : August 1, 2009



STATISTICAL INFORMATION ON RESERVATION OF SCs/STs FOR THE YEAR 2008

Representation of SCs/STs as on 01.01.2009:

Group	Employees on Roll	SCs	%age	STs	%age
A	12410	1455	11.72	477	3.84
B	3569	478	13.39	202	5.65
C	7476	1338	17.89	542	7.24
D	1996	438	21.94	216	10.82
Total	25451	3709	14.57	1437	5.64

Recruitment of SCs/STs during the year 2008.

Group	Total Recruitment	SCs	%age	STs	%age
A	1033	196	18.97	115	11.13
B	-	-	-	-	-
C	18	7	38.88	2	11.11
D	75	26	34.66	17	22.66
Total	1126	229	20.33	134	11.90

Promotions of SCs/STs during the year 2008.

Group	Total	SCs	%age	STs	%age
A	2767	310	11.20	84	3.03
B	811	114	14.05	50	6.16
C	1450	262	18.06	98	6.75
D	92	20	21.73	8	8.69
Total	5120	706	13.78	240	4.68

Efforts of NTPC to fill up the backlog reserved vacancies of SCs and STs in group 'A' posts in year 2008 are as under:

- NTPC identified 128 backlog vacancies of SCs, STs and OBCs in July 2008 for filling up along with current vacancies. Recruitment process has been completed. Offers of appointment have been issued. 96 persons have joined so far.
- Further 25 backlog vacancies of SCs, STs and OBCs were identified as on 01.11.2008 which have been advertised for filling up through Special Recruitment Drive. The recruitment process is in progress.

For and on behalf of the Board of Directors

R.S. Sharma

(R.S. Sharma)
Chairman & Managing Director

Place : New Delhi
Dated : August 1, 2009

PHYSICALLY CHALLENGED PERSONS

With a view to focus on its role as a socially responsible and socially conscious organization, NTPC has endeavored to take responsibility for adequate representation of physically challenged persons in its workforce. With this in view, NTPC launched a massive recruitment drive to make up the shortfall of physically challenged persons. Total 450 physically challenged persons are on rolls on NTPC as on 01.01.2009. Reservation has been provided for PH as per rules/ policy. Some of the other initiatives taken for the welfare of physically challenged persons by NTPC over the years are as under:

- For individual needs of the VH employees, screen reading software and Braille shorthand machines made available by the Projects of NTPC.
- "Sign language" training for the employees in general.
- NTPC has given instructions to all units to create barrier free environment for easy access of PH persons. 18 units have completed the task. The work is in progress at rest of the units.
- At most of the NTPC Projects, wherever houses are located in multi storied structures, allotments to physically challenged has been made on the ground floor.
- Special parking enclosure near the ramp at the office entrance.
- Wheel chairs have been provided to employees with orthopedics disabilities. If required, the assistance of an attendant has also been sanctioned.
- Wherever required, gates/door of the quarter has been widened and wider covers provided on drains to facilitate movement.
- At CC procurement of stationery items like files, envelopes are mainly being done from NGOs/Agencies like ADDI, MUSKAN, Blind Relief Association who are working for physically challenged thereby creating indirect employment.
- Paintings made by disabled persons have also been procured and placed at different locations in the Company Offices.
- Medical camps have been organized in various projects of NTPC for treatment and distribution of aids like artificial limbs, tricycles, wheelchairs, calipers etc.
- Shops have been allotted to NTPC Township to challenged persons so that they may earn their livelihood. Similarly, PCOs within/outside plant premises are also allotted to physically challenged persons.
- Regular interactive meetings are being organized with physically challenged employees.
- Training needs are being fulfilled as per the individual requirement.
- 05 number of Scholarship @ Rs.1500/- per month/per student are given to PH students pursuing MBA/PGDBM Courses.
- In our Vindhyachal Project, a school named Asha Kiran for deaf/dumb and mentally retarded children, is running.
- Petty contracts like book binding, scribbling pad preparation from waste paper, file binding, furniture repair, screen printing, spiral binding, painting contract are also being given to disabled persons.
- Physically challenged (Orthopedically handicapped) employees have been allowed to purchase a three wheeler vehicle with a hand fitted engine against their normal entitlement (advance for scooter/motorcycle/moped) under NTPC conveyance Advance Rules.
- At all Projects/Offices, Nodal Officers (Physically Challenged) have been nominated.
- Reimbursement towards low vision aids, dark glasses etc. subject to maximum of Rs.1000/- every year has been introduced. Similarly hearing aid; behind the ear model for each ear restricted to Rs.10,000/- or actual cost whichever is lower has been introduced. It may be replaced every four years subject to certificate of condemnation by ENT Specialist.
- Relaxation in qualifying marks for open recruitment: pass marks only and also 10% relaxation in written test and interview from the year-2002 onwards.
- NTPC identified 17 backlog reserved vacancies for Physically Challenged persons in year 2008. Two offers of appointment have been issued from the recent select panel. One has joined so far. For 15 backlog vacancies advertisement has been made for filling up through Special Recruitment Drive. The recruitment process is in progress.

For and on behalf of the Board of Directors



(R.S. Sharma)

Chairman & Managing Director

Place : New Delhi

Dated : August 1, 2009



UNGC – Communications on Progress (2008-09)

NTPC expresses its continued support for the Global Compact and its commitment to take action in this regard, as was communicated by the Chairman & Managing Director, NTPC in his letter dated May 29, 2001 addressed to Secretary General, United Nations.

NTPC has posted the brief of Global Compact and its commitment to the principles of GC on its website at www.ntpc.co.in. The principles of GC were communicated to all employees through in-house magazines, internal training programmes and posters. NTPC, a core member of Global Compact Society (GCS), actively participated and assisted in organizing the Annual Convention of the Global Compact Society on 10th Dec 2008. Director (HR) of NTPC is nominated as Vice President, Northern Region for Global Compact Society, India.

Human Rights: Principle 1-2

Most of NTPC's operating power stations are located in remote rural areas which are socio-economically backward and deficient in the basic civic amenities. NTPC, as responsible corporate citizen has been addressing the issue of community development in the neighbourhood areas of its stations, which had been impacted due to establishment of the project.

While, this has been initially administered as part of Resettlement and Rehabilitation effort, NTPC recognized its social responsibility to continue community and peripheral development works where the same has been closed under R&R policy. Towards this, NTPC during 2004-05 adopted "Corporate Social Responsibility-Community Development (CSR-CD) Policy", July' 04.

Under this policy, during 2008-09, NTPC allocated a fund of Rs.102.4 million to 20 operating stations for carrying out comprehensive Community Development work in the area of health, education, drinking water and peripheral development. In addition, Quality Circles (QCs) are functioning in neighborhood villages of its stations. The NTPC employees participate in various CD activities through Employee Voluntary Organization for Initiative in Community Empowerment (EVOICE).

NTPC provided sponsorship to candidates from villages in the vicinity of NTPC stations/ Projects for ITI training at Government/ Government recognized private ITIs in the trades of Welder/ Fitter/ Instrument mechanic/ Electrician. Close to 700 village youth have been sponsored during the financial year.

NTPC is committed to provide support for setting up a technical polytechnic at Uattaranchal, at Kaladungi, Dist. Nainital. Support for a Women's Polytechnic at Gopeshwar, Dist. Chamoli is also committed.

NTPC Foundation, registered in December'2004, is striving to serve and empower the physically challenged and economically weaker sections of the society. The Information and Communication Technology (ICT) Centre, set up jointly by NTPC Foundation and University of Delhi and inaugurated in Oct'08, will enable approximately 1000 physically challenged students to learn IT Skills and help them move along with the mainstream society. Foundation is also extending similar ICT facilities to the existing blind schools in Lucknow, Ajmer, Thiruvananthapuram and Mysore.

Tanda, in U.P. has been identified by Foundation as pilot project for operating District Disability Rehabilitation Centre (DDRC) in collaboration with National Institute of Orthopedically Handicap (NIOH), Ministry of Social Empowerment, Govt of India.

In the area of health, Mobile Vans with diagnostic equipments have been provided at 4 stations i.e. Rihand, Ramagundam, Singrauli and Vindhyachal for treatment and diagnosis of the Tuberculosis patients in the neighbourhood villages of the stations.

NTPC Foundation is also providing grants for setting up of Distributed Generation Projects for preparation of feasibility report, DPR, Insurance, Energy Plantation and for meeting funding gap limited to 30% of the approved project cost.

NTPC supported various Institutions/ Bodies and undertook initiatives for major activities as detailed below:

- (i) Support has been extended for assistance in self reliance for 200 tribal girls/ women in tribal area of Jhamar Kotra in Udaipur Dist. of Rajasthan.
- (ii) Assistance is also being extended for construction of School cum Multipurpose Building for Girls in Village Shaulana, Dist Ghaziabad, Uttar Pradesh through Nari Jagriti Abhiyan, Hardwar and for construction of one floor each for Girls Hostel in Distt. Ongole and Guntur of AP.
- (iii) As a CSR initiative in the field of Health, NTPC is providing support to Hyderabad Eye Research Foundation for three

specialized Eye Centers at Bhubneswar Eye Hospital, Bhubneswar, Orissa. These Centers will provide free medical facilities to the economically under privileged patients.

In order to contribute in the Conservation of selected National Monuments, NTPC in association with Archaeological Survey of India (ASI), has identified 3 sites for financial support.

NTPC members were actively involved as "industry experts on CSR" in preparation of "ISO 26000 Guidance on Social Responsibility.

NTPC representatives associated with Confederation of Indian Industry (CII) as Certified Assessors for the assessment of CII-ITC Sustainability Award constituted by the CII.

Labour Standard: Principle 3-6

For addressing the issue of labour standard in comprehensive manner, NTPC has decided to adopt international standards like SA-8000 and OHSAS-18001.

During the year 2008-09, Jhanor- Gandhar and Singrauli stations of NTPC received SA-8000 accreditation. The process has been initiated at Kawas station for accreditation. Anta, Auraiya, Badarpur, Farakka, Faridabad, Kayamkulam, NCPP-Dadri, Ramagundam, Rihand, Simhadri, Talcher-Thermal, Tanda, Unchahar and Vindhyachal are already accredited in the previous years.

All the 20 operating Stations of NTPC have already obtained accreditation under OHSAS 18001. During 2008-09 Faridabad, Kawas, Talcher Kaniha and Tanda stations have been re-certified under OHSAS 18001.

NTPC was closely associated in formulation of IS:16001:2007 on "Organisational Accountability at the Workplace-Requirements" prepared by Bureau of Indian Standard (BIS).

Environment: Principle 7-9

Towards its commitment to environment NTPC has decided to adopt ISO-14001 and all its 20 operating stations have obtained accreditation for ISO-14001. Surveillance audit through was done by agencies at various stations to ensure adherence to the ISO requirements.

During the year 2008-09, 3 stations viz. Faridabad, Kawas and Talcher Kaniha stations have been re-certified under ISO 14001.

Place : New Delhi

Dated : August 1, 2009

For and on behalf of the Board of Directors



(R.S. Sharma)

Chairman & Managing Director



CONTENTS OF PRESIDENTIAL DIRECTIVES

1. Pay revision of Board level and below Board level Executives and Non-unionised Supervisors in Central Public Sector Enterprises (CPSEs) w.e.f. 01.01.2007

Vide Presidential Directive No. 3/4/2009-TH.I dated 30.04.2009, the Government of India has directed NTPC Limited to implement revision of pay and allowances of Board Level and below Board Level Executives in NTPC Limited strictly as per the guidelines contained in Department of Public Enterprises (DPE) O.M. No. 2 (70)/08-DPE (WC)-GLXVI/08 dated 26.11.2008, No.2(70)/08-DPE (WC) - GL- IV/09 dated 09.02.2009, No. 2(70)/08-DPE (WC) - GL-VII/09 dated 02.04.2009 and No. 2(76)/08-DPE (WC) GL - VIII/09 dated 02.04.2009. Special attention is invited to para 2 (ii) of DPE's O.M. No. 2 (70)/08- DPE (WC) - GL- XVI/08 dated 26.11.2008, para 2 (vi) of O.M. No. 2(70)/08-DPE (WC)-GL-VII/09 dated 02.04.2009 and para 4 of O.M. No. 2(76)/08-DPE - (WC) GL-VIII/09 dated 02.04.2009.

Pending implementation of presidential directive, provision of Rs. 3,575 million for the year and Rs. 6,970 million upto the financial year 2008-09 has been made on account of revision of pay scales of Board level, below Board level Executives and Non-unionised Supervisors (excluding employees in workmen category) on an estimated basis having regard to the guidelines issued by Department of Public Enterprises, Government of India. Further, a sum of Rs. 2,394 million has been paid as adhoc advance towards revision of pay scales of Board level, below Board level Executives and Non-unionised Supervisors (excluding employees in workmen category) upto the financial year 2008-09.

2. Winding up of Pipavav Power Development Company Limited (PPDCL) by NTPC Limited

Vide Presidential Directive No. 5/5/2004-TH.II dated 03.07.2009, Government of India is pleased to convey the approval of Government to permit NTPC Limited for winding up of Pipavav Power Development Company Limited pending final settlement of claims with Gujarat Power Corporation Limited/ Government of Gujarat.

After decision of disassociation of NTPC Ltd. from Pipavav Project, Rs. 131 million have already been received towards reimbursement of cost of land and other expenditure incurred by NTPC Ltd for Pipavav Project including interest thereon. After winding up of Pipavav Power Development Company Limited, final claims including expenditure incurred by NTPC Ltd on winding up of Pipavav Power Development Company Limited shall be recovered from Gujarat Power Corporation Limited/ Government of Gujarat.

For and on behalf of the Board of Directors



(R.S. Sharma)

Chairman & Managing Director

Place : New Delhi

Dated : August 1, 2009