

TALCHER THERMAL POWER PROJECT, STAGE-III (2X660 MW) NEAR TALCHER TOWN, TEHSIL TALCHER SADAR, ANGUL DISTRICT, ODISHA

**HALF-YEARLY COMPLIANCE STATUS OF ENVIRONMENTAL CLEARANCE CONDITIONS
EC Ref. No. No. J-13012/31/2009-IA.II(T) Dated: 12.9.2018**

S.No.	EC Conditions	Status as on 30.09.2020
A	SPECIFIC CONDITIONS	
(i)	Ash ponds near Village Jhadiamba (133.848 acres) and Village Santhapada (156.538 acres) shall not be taken up as the ash is proposed to dispose it in the abandoned mine voids	Ash Dyke Construction works have been short closed and hence condition has been complied. Ash will be disposed in abandoned mine voids.
(ii)	The Ash content and Sulphur contents in the Coal shall not exceed 34% and 0.55%, respectively. In case of change in coal characteristics, a fresh reference is to be made to Ministry for reviewing the incremental impact, if any and adequacy of the conditions	The said stipulation will be complied during operation phase of the project.
(iii)	The capital CSR/ CER budget shall be in line with Ministry's OM dated 1.5.2018 or Rs.19.5 crores whichever is higher. The amount shall be implemented during project construction in the surrounding villages.	The said stipulation will be complied during construction phase of the project.
(iv)	As the coal source is determined, the details regarding characteristics of coal along with transport mode shall be submitted to Ministry. Coal transportation shall be done by rail only. In any event, coal shall not be transported by road.	The said stipulation will be complied during construction phase of the project.
(v)	The ash which is sent to South Balanda mines shall be mixed with 8% lime before disposing into the mines	Study is being taken up by CMPDIL, Ranchi, to examine requirement of mixing 8% lime before disposing ash into the mines.
(vi)	The new emission standards notified vide Ministry's S.O.3305(E) dated 7.12.2015 shall be achieved for existing units as per the extended timelines given by CPCB. Further, the proposed units shall achieve new emissions standards from the date of commissioning of the plant.	Dry Sorbent Injection for reduction of SO2 emission is under tendering stage - Deadline extended by CPCB to 31.12.2020. Further, the proposed units shall achieve new emissions standards from the date of commissioning of the plant.

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(vii)	Considering the proposed project is located in the Talcher Critically Polluted Area, the stack height of 275 m shall be erected to achieve maximum dispersion	The said stipulation will be complied during construction phase of the project.
(viii)	The ash pond near Village Santhapada shall not be used as it is near to Brahmani River and high chances of breaching and contaminating the water body.	Ash Dyke Construction works have been short closed and hence condition has been complied. Ash will be disposed in abandoned mine voids.
(ix)	As per the Revised Tariff Policy notified by Ministry of Power vide dated 28.01.2016, project proponent shall explore the use of treated sewage water from the Sewage Treatment Plant of Municipality/ local bodies/ similar organization located within 50 km radius of the proposed power project to minimize the water drawl from River Brahmani/other surface water bodies	The said stipulation will be complied during operation phase of the project.
(x)	Compliance of EC conditions, E(P) Act, 1986, Rules and MoEF&CC(WS) Notifications issued time to time shall be achieved by a qualified environment officer to be nominated by the Project Head of the Company who shall be responsible for implementation and necessary compliance	An Environment Management Group (EMG) headed by AGM (EMG) is already functional at the Talcher Thermal Power Station. AGM (EMG) will be responsible for implementing and monitoring the stipulations. EMG will have sufficient trained manpower for environmental monitoring and other environmental related activities to ensure compliance with statutory requirements. It will interact regularly with the State Pollution Control Board.
(xi)	Thermal Power Plant shall achieve specific water consumption, zero liquid Talcher discharge and emission standards as per MoEF&CC Notification S.O. 3305(E) dated 7.12.2015 or subsequent notifications issued time to time.	The said stipulation will be considered during design of the project.
(xii)	MoEF&CC Notification G.S.R 02(E) dated 2.1.2014 regarding use of raw or blended or beneficiated or washed coal with ash content not exceeding 34% shall be complied with, as applicable.	The said stipulation will be complied during operation phase of the project.

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(xiii)	MoEF&CC Notifications on flyash utilization S.O. 763(E) dated 14.09.1999, S.O. 979(E) dated 27.08.2003, S.O. 2804(E) dated 3.11.2009, S.O. 254(E) dated 25.01.2016 and subsequent amendments issue time to time shall be complied with	All MoEF&CC Notifications on flyash utilization will be complied during operation phase of the project.
(xiv)	Construction and inert waste generated during phasing out of existing plants shall be disposed as per Construction and Demolition Waste Management Rules, 2016	The demolition of existing units is proposed after operation of Stage-III units. Construction of Proposed Stage-III has not started yet.
(xv)	Vision document specifying prospective plan for the site shall be formulated and submitted to the Regional Office of the Ministry within six months	Talcher TPS has already submitted a project vision document to the Regional Office of MOEF&CC at Bhubaneswar.
(xvi)	Harnessing solar power within the premises of the plant particularly at available roof tops shall be carried out and status of implementation including actual generation of solar power shall be submitted along with half yearly monitoring report	Solar power is being harnessed from some roof tops. Besides this, scheme for harnessing solar power from roof tops within the premises of the upcoming plant will be implemented.
(xvii)	Online continuous monitoring system for stack emission, ambient air and effluent shall be installed	Online continuous monitoring system for stack emission, ambient air and effluent are already operating for the existing station. For the expansion project the same will be utilized for new/ expansion units.
(xviii)	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 30 mg/Nm ³ or as would be notified by the Ministry, whichever is stringent. Adequate dust extraction system such as cyclones/bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided along with an environment friendly sludge disposal system.	The High Efficiency Electrostatic Precipitators (ESP) will be designed in order to comply with the direction. Besides, dust extraction systems and suitable water spray systems are included in the design of the plant to suppress/avoid dust emissions from the coal and ash handling areas.

S.No.	EC Conditions	Status as on 30.09.2020
(xix)	Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	Adequate no. of dust suppression and dust extraction systems will be provided in coal handling area including coal stock yard area, ash handling area and other vulnerable dusty area for control of fugitive dust emissions.
(xx)	Monitoring of surface water quantity and quality shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall also be undertaken and results/findings submitted along with half yearly monitoring report	Monitoring of Surface and ground water quality will be carried out regularly as per Stipulations and half yearly reports will be submitted to Regional office of MoEF&CC at Bhubaneswar during the operation phase of the project. Heavy metal monitoring in ground water shall be undertaken and results will be submitted along with half yearly monitoring report.
(xxi)	A well designed rain water harvesting system shall be put in place within six months, which shall comprise of rain water collection from the built up and open area in the plant premises and detailed record kept of the quantity of water harvested every year and its use	Rain water harvesting system will be put in place after operation of plant and records shall be maintained.
(xxii)	No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up/operation of the power plant	The said stipulation will be complied both during the construction as well as operation phase of the project.
(xxiii)	Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.	All additional soil levelling of the project site will be done from within the sites only with all necessary precautions to protect natural drainage system of the area.

S.No.	EC Conditions	Status as on 30.09.2020
(xxiv)	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Mercury and other heavy metals (As, Hg, Cr, Pb etc.) shall be monitored in the bottom ash. No ash shall be disposed off in low lying area.	<p>An ash management & disposal scheme will be implemented consisting of dry ash extraction system (DAES) for dry collection of fly ash with storage facility (silos), supply of ash to entrepreneurs for utilization and promoting ash utilization to maximum extent and safe disposal of unused ash in slurry form to the abandoned mine void area.</p> <p>The plant shall also have ash water re-circulation system for bringing back decanted water from abandoned mine voids for reuse inside plant for ash slurry making.</p> <p>Periodic monitoring for mercury & heavy metals in the bottom ash will be done during the operation phase of the project.</p>
(xxv)	No mine void filling will be undertaken as an option for ash utilization Talcher without adequate lining of mine with suitable media such that no leachate shall take place at any point of time. In case, the option of mine void filling is to be adopted, prior detailed study of soil characteristics of the mine area shall be undertaken from an institute of repute and adequate clay lining shall be ascertained by the State Pollution Control Board and implementation done in close co-ordination with the State Pollution Control Board	CMPDIL, Ranchi will take up Leaching Study at Quarry no. 4 & 7 of abandoned Jagannath Mine Void. Accordingly, requirement of clay lining, if any, will be discussed with State Pollution Control Board.
(xxvi)	Fugitive emission of fly ash (dry or wet) shall be controlled such that no agricultural or non-agricultural land is affected. Damage to any land shall be mitigated and suitable compensation provided in consultation with the local Panchayat.	Fugitive emission of fly ash & dust will be controlled with the aid of suitable pollution control devices such as dust extraction system and dust suppression system, etc. Extensive plantation will be undertaken in

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		all available spaces including coal handling, ash handling areas etc. selectively with Air Pollution Tolerant (APTI) plant species.
(xxvii)	Green Belt consisting of three tiers of plantations of native species all around plant and at least 50 m width shall be raised. Wherever 50 m width is not feasible a 20 m width shall be raised and adequate justification shall be submitted to the Ministry. Tree density shall not be less than 2500 per ha with survival rate not less than 80 %.	<p>More than 4,18,000 trees of different species were already planted by Talcher project in and around its existing area.</p> <p>Plantation would be developed in the available and feasible areas of Main plant, cooling towers, new admin building, around stock pile of the coal and other material, road sides, internal roads.</p> <p>Extensive afforestation will be undertaken at all available spaces in and around project, after construction is complete.</p>
(xxviii)	The project proponent shall formulate a well laid Corporate Environment Policy and identify and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance With the conditions stipulated in this clearance letter and other applicable environmental laws and regulations.	Corporate Environment Policy is already existing and the same will be adhered to so as to comply with the conditions stipulated in this clearance letter and other applicable environmental laws and regulations.
(xxix)	CER schemes identified based on need based assessment shall be implemented in consultation with the village Panchayat and the District Administration starting from the development of project itself. As part of CER prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken. Company shall provide separate budget for community development activities and income generating programmes	After start of construction of project, CER schemes shall be identified based on Need Based Assessment Survey in consultation with the village Panchayat and the District Administration. NTPC will identify local employable youth and eventual employment in the project through contractors after imparting relevant training shall be also provided.

S.No.	EC Conditions	Status as on 30.09.2020
		<p>Separate budget has been earmarked for implementing CER-CD activities for the project and shall be utilized in accordance with the said stipulations.</p> <p>NTPC is already providing solar lights & toilets in villages, providing education in schools inside TTPS premises to children from villages in the periphery & organized medical camp for local population.</p>
(xxx)	CER activities will be carried out as per OM No. 22-65/2017-IA.II dated 01.05.2018 or as proposed by the PP in reference to Public Hearing or as earmarked in the EIA/EMP report along with the detailed scheduled of implementation with appropriate budgeting	The said stipulation will be complied during construction phase of the project.
(xxxii)	For proper and periodic monitoring of CSR activities, a CSR committee or a Social Audit committee or a suitable credible external agency shall be appointed. CSR activities shall also be evaluated by an independent external agency. This evaluation shall be both concurrent and final.	In-built mechanism will be adopted for the monitoring CSR schemes through any Government institute or agency of repute in the region.
B	GENERAL CONDITIONS	
(i)	The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not get mixed	<p>The concept of Zero Liquid Discharge (ZLD) shall be adopted through reuse of plant effluents.</p> <p>An independent plant effluent drainage system will be constructed to ensure that plant effluents do not mix with storm water drainage.</p>
(ii)	A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation	All domestic sewage emanating from plant and township will be treated in a sewage treatment plant. The treated sewage conforming to prescribed standards shall be utilized for

S.No.	EC Conditions	Status as on 30.09.2020
		plantation & raising greenbelt to the extent possible.
(iii)	Storage facilities for auxiliary liquid fuel such as LDO/ HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil	Storage facilities for auxiliary liquid fuel LDO/HFO are designed conforming to the safety standards and where risk is minimal. A detailed Disaster Management Plan & Risk assessment including fire and explosion issues will be prepared and finalized in consultation with Department of Explosives, Nagpur and regular mock drills shall be conducted as per plan in order to address any eventuality in case of an accident.
(iv)	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase	All arrangements related to first aid, health & safety and sanitation for workers/drivers during construction phase of the project have been kept under the scope of EPC contractor. However, NTPC will ensure effective compliance of the said stipulations.
(v)	Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 85 dB(A) from source. For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non-noisy/less noisy areas.	Design specification for the equipments has been made to comply with the stipulation. Personal protective equipment has been arranged through contractors during construction phase. Periodic examination of workers during operation phase shall be done as stipulated. The workers of generator hall and other high noise area will be provided with appropriate ear protection devices.
(vi)	Regular monitoring of ambient air ground level concentration of SO ₂ , NO _x , PM _{2.5} & PM ₁₀ and Hg shall be carried out in the impact zone	In existing units, Regular Monitoring of Ambient air

S.No.	EC Conditions	Status as on 30.09.2020
	and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry. The data shall also be put on the website of the company.	quality is being carried out through Continuous Ambient Air Quality Monitoring System and internal as well as through third party monitoring are being done and reports are being submitted to SPCB. For upcoming units also similar scheme will be followed.
(vii)	Utilization of 100% Fly Ash generated shall be made from 4th year of operation. Status of implementation shall be reported to the Regional Office of the Ministry from time to time	Ash Utilization shall be implemented in compliance to fly ash gazette notification by MOEF&CC dt 14.09.1999 and its subsequent amendments and status of ash utilization plan implementation shall be intimated to the RO of Ministry, of MoEF&CC at Bhubaneswar after operation of project.
(viii)	Provision shall be made for the housing of construction labour (as applicable) within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project	A labour colony with necessary infrastructure facilities such as housing, sanitation, mobile toilet, fuel, medical facilities, safety, drinking water supply, etc. will be provided for construction labour through EPC contractor. NTPC will ensure effective compliance of the said stipulation by contractors.
(ix)	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Delhi Pollution Control Committee and may also be seen at the Website of MoEF&CC at http://envfor.nic.in .	The information of Environment Clearance was widely circulated in the region in two newspapers, i.e. in English Newspaper -The New Indian Express, and in vernacular language newspaper, i.e. in Sambad, on 19.09.2018.

S.No.	EC Conditions	Status as on 30.09.2020
(x)	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad I Municipal Corporation, urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent	Copy of Clearance letter has been submitted to Panchayat, Zila Parishad and NGO. The Environmental Clearance was also uploaded in NTPC website.
(xi)	The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM (PM _{2.5} & PM ₁₀), SO ₂ , NO _x (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain	The HYC status of the stipulated Environmental Clearance conditions has been uploaded on the NTPC website of the company. The display of ambient air quality in terms of PM ₁₀ , PM _{2.5} , SO ₂ and NO _x already displayed near main gate of company and in the public domain and same shall be continued during the operational phase of the project.
(xii)	The environment statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of (environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail	The environment statement for each financial year ending 31 st March in Form - V will be submitted once the plant becomes operational by NTPC to the Odisha State Pollution Control Board and will be upload on NTPC website.
(xiii)	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to MoEF&CC, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environmental clearance conditions on their website and update the same periodically and simultaneously send the	Six monthly EC compliance report for the period April 2020 to September 2020 is submitted herewith.

S.No.	EC Conditions	Status as on 30.09.2020
	same by e-mail to the Regional Office, MoEF&CC.	
(xiv)	The progress of the project shall be submitted to CEA on six monthly basis.	Shall be complied.
(xv)	Regional Office of the MoEF&CC will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six monthly basis. Criteria pollutants levels including NOx (from stack & ambient air) shall be displayed at the main gate of the power plant.	Shall be complied.
(xvi)	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked , for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry	<p>Separate funds for Environment Protection measures already given in Feasibility Report.</p> <p>Financial Provision stipulated towards Env. Protection measure will not be diverted for any other purpose.</p> <p>Construction of project has not started yet.</p>
(xvi i)	The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant	Will be complied.
(xvi ii)	Full cooperation shall be extended to the Scientists/Officers from the Ministry j Regional Office of the Ministry CPCB/ SPCB who would be monitoring the compliance of environmental status	Full cooperation shall be extended to the Scientists / officers from the Ministry / Regional Office of the Ministry / CPCB / SPCB during monitoring of the project.

S.No.	EC Conditions	Status as on 30.09.2020
C	An as built or as completed report on EMP to be submitted stating the scope/extent of work envisaged in the EIA along with estimated cost vis-à-vis the actual completed works and cost incurred. A certificate/completion certificate accordingly, shall have to be submitted before commissioning of the TPP.	Shall be complied before commissioning of plant.
33.	The ministry reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction. The Ministry may also impose additional environmental conditions or modify the existing ones, if necessary.	Noted.
34.	The environmental clearance accorded shall be valid for a period of 7 years from the date of issue of this letter to start operations by the power plant.	Noted.
35.	Concealing factual data or submission of false / fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environmental (Protection) Act, 1986.	Noted.
36.	In case of any deviation or alteration in the project proposed including coal transportation system from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the conditions (s) imposed and to add additional environmental protection measures required, if any.	Noted.
37.	The above stipulations would be enforced among others under the water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environmental (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008 and its amendments,	Noted.

S.No.	EC Conditions	Status as on 30.09.2020
	the Public. Liability Insurance Act, 1991 and its amendments.	
38.	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.