

Ref: Lara/EMG/2022

Date: 03.06.2022

To  
Additional Principal Chief Conservator of Forests  
Ministry of Environment, Forest & Climate Change  
Regional Office (West Central Zone)  
Ground Floor, East Wing,  
New Secretary Building  
Civil Lines, Nagpur-440001  
(mail:-\_apccfcentral-ngp-mef@gov.in)

**Subject: 19<sup>th</sup> Six Monthly Environment Compliance Report of NTPC-Lara Station (2X800 MW).**


**Ref. No.: MoEF & CC, Govt. Of India, New Delhi letter Reference Number: J 13012/79/2007-1A-II (T); dated: 13.12.2012**

Dear Sir,

This has reference to the environment clearance for Lara STPS, NTPC Ltd. issued vide MoEF & CC, Govt. Of India, New Delhi letter Reference Number: J 13012/79/2007-1A-II (T); dated: 13.12.2012. Kindly find the enclosed 19<sup>th</sup> Six monthly environmental clearance compliance report for your record and kind information please.

Thanking You,

Yours Faithfully



Sudhir Dahiya  
Additional General Manager  
(Environment Management Group)  
NTPC Lara

Enclosure: i) As above

**COMPLIANCE REPORT OF ENVIRONMENTAL CLEARANCE  
CONDITIONS FOR LARA STPP, STAGE-I (2X800 MW)**

**(PERIOD: October 2021 TO March 2022)**

**A. Specific Conditions:**

<b>S. No.</b>	<b>Description</b>	<b>Status of Implementation (As on 31.03.2022)</b>
i	Vision document specifying prospective plan for the site shall be formulated and submitted to the Regional Office of the Ministry within <b>six months.</b>	Vision document specifying prospective plan of the project was submitted to the Regional Office (Western Central Zone) of the MOEF&CC at Nagpur along with first six monthly compliance report vide NTPC letter dated 11.07.2013.
ii	Scheme for implementation for harnessing solar power within the premises of the plant particularly at available roof tops shall be formulated and status of implementation shall be submitted periodically to the Regional Office of the Ministry.	1164.8 KW roof top solar panels have been commissioned and operational.
iii	Provision for installation of FGD shall be provided for future use.	NTPC has already awarded contract for installation of FGD to M/s L&T on 31.07.2018 for controlling SOx concentration in flue gas in compliance to the latest MOEF&CC emission norms dated 07.12.2015 for TPP. The installation of FGD is in progress.

iv	Coal transportation to plant site shall be undertaken by rail and no road transportation shall be permitted.	Noted, Compliance assured.  MoEF&CC vide gazette notification dated 21.05.2020 and OM dated 11.11.2020 has also accorded amendment regarding coal transportation by road.
v	<p>A long term study of radio activity and heavy metals content on coal to be used shall be carried out through a reputed institute. Thereafter mechanism for an in-built continuous monitoring for Radio activity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.</p> <p>The Clause has been amended as : "Radio activity and Heavy Metals" contents in coal &amp; fly ash (including bottom ash) shall be carried out through a reputed institute once in a year and the analysis report to be submitted to the ministry and its Regional Office.</p>	<p>In compliance to the said stipulations, the heavy metal testing for coal, fly ash and bottom ash has been carried out by MOEF&amp;CC approved vendor.</p> <p>The monitoring of radioactivity contents has also been carried out annually through M/s Board of Radioisotope Technology (DAE).</p> <p>The analysis reports are being attached along with the compliance report.</p>
vi	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.5% and 34 % respectively at any given time. In case of variation of coal quality at any point of time fresh reference shall be made to the Ministry for suitable amendments to environmental clearance condition wherever necessary.	MOEF&CC Vide Office Memorandum dated 11.11.2020 has modified this condition. The project proponent has to only inform to the Regional Office of MOEF&CC regarding the change in coal source and quality.
vii	Bi-flue stack of 275 m height with flue gas velocity not less than 22 m/s shall be installed and provided with continuous online monitoring equipments for SO <sub>x</sub> , NO <sub>x</sub> and PM. Mercury emissions from stack may also be monitored on periodic basis.	Complied.  Mercury emissions from stack are also monitored on periodic basis.
viii	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm <sup>3</sup> .	The High Efficiency Electrostatic Precipitators (ESP), designed for achieving guaranteed efficiency of 99.97 % installed and operational to ensure that the emission of Particulate Matter (PM) is in compliance.

ix	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 Dust extraction and dust suppression system provided in all areas (in coal handling and ash handling points, transfer areas and other vulnerable dusty areas) for control of fugitive emission.
x	No mine void filling or filling up of low lying areas with fly ash shall be undertaken.	Ash utilization shall be carried out in compliance to the MOEF&CC Notification dated 31.12.2021.
xi	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 Plan has been prepared and all efforts are being made to achieve the targets in compliance to fly ash Gazette Notification dated 03.11.2009 and its amendments issued thereafter.  Annual Ash utilization report is being attached with the compliance report.
xii	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized fly ash shall be disposed off in the ash pond in the form of slurry form.  Mercury and other heavy metals (As, Hg, Cr, Pb etc.) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed off in low lying area.	Two High Concentration Slurry Disposal (HCSD) Silos are operational having capacity 750MT each for collection, issue of dry fly ash to end user and disposal of unused fly ash in ash dyke. Third HCSD silo of 750 MT capacity is under advance stage of erection. In addition to above, additional Dry Ash Extraction System (DAES) for collection of fly ash with higher storage capacity silos (4*1250MT) awarded and are under erection.  Periodic monitoring for mercury & heavy metals in the bottom ash and water emanating from ash pond is being done. Reports have been attached with this report.
xiii	Ash pond shall be lined with HDPE/LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time.  Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.	Complied.  The structure of ash dykes is designed, constructed and operated as per State of the Art engineering

	Ash pond water shall be re- circulated and utilized.	design and construction of earth dams with adequate factor of Safety to avert any remote possibility of getting breached. Regular monitoring and inspection of ash dykes and an emergency response system ensure that there are no risks of failure as apprehended.  In compliance.
xiv	Fugitive emissions shall be controlled to prevent impact on such that no agricultural/ non-agricultural land.  Impact to any land shall be mitigated and suitable compensation provided in consultation with the local Panchayat.	Noted, Compliance assured.  Compliance assured, if any such conditions arises.
xv	Hydrogeology of the area shall be reviewed annually from an institute / organization of repute to assess impact of surface water and ground regime (especially around ash dyke.) In case any deterioration is observed, specific mitigation measures shall be undertaken and reports / data of water quality monitored regularly and maintained shall be submitted to the Regional Office of the Ministry.	<ul style="list-style-type: none"> <li>• The baseline Hydro-geological study at Lara project has been carried out through IIT, Roorkee. The study is being continued and reviewed annually from an institute/ organization of repute.</li> <li>• The surface and ground water analysis is also being carried out through MOEF&amp;CC approved laboratory and monitoring reports attached for reference.</li> </ul>
xvi	No ground water shall be extracted for use in operation of the power plant even in lean season.	In compliance.
xvii	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.	Noted, Compliance assured.
xviii	Minimum required environmental flow suggested by the Competent Authority of the state Govt. shall be maintained in the Channel/ Rivers (as applicable) even in lean season.	Raw water is sourced from Saradih Barrage of Mahanadi river as per the agreement with Chhattisgarh Water Resource Department (CGWRD) and water drawl is being done in consultation with (CGWRD) to comply all applicable conditions. Saradih reservoir is under administrative Control of Chhattisgarh Water resource Department.

xix	COC of 5.0 shall be adopted	Complied.
xx	<p>Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new piezometers.</p> <p>Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg, Cr, As, Pb) and records maintained and submitted to the Regional Office of this Ministry. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project.</p>	<p>Complied.</p> <p>10 nos. of piezometers for regular monitoring of ground water level in and around the ash pond areas and plant area as per stipulation have been constructed.</p> <p>Base line monitoring for ground water quality is being already carried out through MoEF&amp;CC recognized laboratory and the same will be continued. The records are being maintained and submitted to CECB regularly. Reports are being attached.</p>
xxi	<p>Monitoring surface water quality in the area 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.</p> <p>Monitoring for heavy metals in ground water shall be undertaken.</p>	<p>Monitoring of Surface water quality in the areas are being carried out by MOEF&amp;CC recognized laboratory and the same will be continued.</p> <p>The records are being maintained and submitted to CECB regularly. Reports are being attached.</p> <p>Monitoring for heavy metals in ground water is also being carried out and its records being submitted to CECB regularly.</p>
xxii	Waste water generated from the plant shall be treated before discharge to comply limits prescribed by the SPCB/CPCB.	In compliance.
xxiii	<p>The project proponent shall undertake rain water harvesting measures and shall develop water storage for use in operation of the plant.</p> <p>Rain water harvesting system shall be put in place which shall comprise of rain water collection from the built up and open area in the plant premises. Action plan for implementation shall be submitted to the Regional Office of the Ministry.</p>	<p>Facility for Rainwater harvesting along with storage capacity created in Township as per availability of land.</p> <p>Rainwater harvesting system provided in township for rainwater collection and pits provided for groundwater recharge.</p> <p>Ground water recharge centers have been constructed as per rainwater harvesting scheme in our plant area &amp; township area.</p>

xxiv	Additional soil for leveling of the proposed site shall be generated within the site (to the extent possible) so that natural drainage system of the area is protected and improved.	In compliance.
xxv	Common property resource falling in the vicinity of the project area shall be identified and if any common property resource (such as grazing land, pond etc.) is falling within the plant area and is unavoidable by its sheer location, an equal area shall be first developed and handed over to the community.	Equal amount of land 40.541 Hectare has already been provided from the acquired land and the development work/ restoration work is in progress.
xxvi	The project proponent need to ensure that poor villagers (particularly landless farmers) are further not marginalized. Accordingly, identification of landless farmers shall be carried out from records of Revenue Department/ District Agricultural Office, collected and appropriate scheme for sustainable livelihood scheme shall be devised and audited report sent to the concerned Department from time to time.	Complied.  The said stipulations have already been included in approved R&R Plan and the same is being implemented.
xxvii	The project proponent shall ensure compensation to the land oustees and also formulate scheme in consultation with the State Govt. for immediate implementation of sustainable welfare measures for marginalized landless farmers whose sustenance were indirectly dependent on the land now proposed for the power project and not owned by them.	The said stipulations has already been complied in accordance with the approved R&R Plan.

xxviii	<p>The project proponent shall also adequately contribute in the development of the neighboring villages. Special package with implementation schedule for providing potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.</p>	<p>Development of neighboring villages has been covered under Rehabilitation Action Plan and Community Development activities planned under CSR. The activities include construction of overhead water tank with piped supply system in all nine project affected villages, renovation of all existing ponds and water bodies, construction of concrete roads with drains, infrastructure facilities in schools, etc.</p>
xxix	<p>CSR scheme shall be undertaken based on need based assessment in and around the villages within 5 km of the site and in constant consultation with the village Panchayat and the District Administration. As part of CSR employment of local youth after imparting relevant training as may be necessary shall be undertaken as committed.</p>	<p>Plan for CSR activities have been developed on the basis of need based assessment and in consultation with Village Development Advisory Committee (VDAC) and State Government. This committee has representatives of all nearby villages, State Government, NGO etc. The same shall be implemented. The cycle of assessment, formulation of activities and implementation shall be continued in future also.</p> <p>Various CSR schemes are being implemented based on need based survey within 5 Km and in consultation with the Village Panchayat and the District Administration;</p> <ul style="list-style-type: none"> <li>• Infrastructural development i.e. improvement in roads, electricity, supply of drinking water, sanitation, educational institutions, and transportation facilities etc.</li> <li>• Scholarships to students and facilitation for sports, training for self-employment (computer, welding, bar-bending, carpentry, stitching, embroidery) etc.</li> <li>• Training/ financing facilitation for development of rural small scale industries i.e. bee keeping, poultry, dairy farming etc.</li> </ul>



xxx	An amount of Rs 38.0 Crores shall be earmarked as one-time capital cost for CSR program as committed by the project proponent. Subsequently a recurring expenditure of Rs 7.65 Crores per annum till the life of the plant shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within six months along with road map for implementation.	The condition has been deleted through EC amendment dated 21.10.2020.
xxxii	It shall be ensured that an in-built monitoring mechanism for the CSR schemes identified is in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time. The achievements should be put on company's website.	Need based Assessment Survey has been carried out through M/s INDIAN INSTITUTE OF CORPORATE AFFAIRS (IICA). Monitoring of work is done by Site-R&R, RHQ-R&R, Corporate-R&R and CSR department (Headed by Executive Director).
xxxiii	Green Belt consisting of 3 tiers of plantations of native species around plant not less than 100m width shall be raised (except in areas not feasible). The density of trees shall not less than 2500 per ha with survival rate not less than 80%.	<p>a) Green belt development is in progress. Plantation activity has been already started by engaging local people and through contracts awarded to Chhattisgarh Rajya Van Vikas Nigam Limited.</p> <p>b) Total 3.05 Lakh trees have been planted till date. Out of which 0.50 Lakh tree plantation have been planted in 2021-22.</p> <p>c) A total Rupees 11.07 crores have been deposited under Hariyar Chhattisgarh scheme of Chhattisgarh State Government by NTPC Lara. A total 2.72 Lakh tree saplings have been planted under above program till date.</p>
xxxiii	An Environmental Cell shall be created at the project site itself and shall be headed by an officer of appropriate seniority and	In compliance.

	qualification. It shall be ensured that the Head of the Cell shall directly report to the Head of the Organization.	
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**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.	Complied
ii	A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising green belt/ plantation.	MBBR Technology based Sewage Treatment Plant is operational. STP treated effluent conforming to prescribed standards is being utilized for plantation & raising greenbelt.
iii	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry.	Complied, 460 numbers fire hydrants provided in the entire power station including Coal yard.
iv	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.	License for storage of LDO has been obtained from Department of Explosives, Nagpur vide license number P/HQ/CG/15/712(P373361) dated 16.12.2016 valid till 31.12.2027. Being Complied.  A detailed Disaster Management Plan is prepared and finalized in consultation with Department of Explosives, Nagpur and regular mock drills are being conducted quarterly as per plan in order to address any eventuality in case of an accident.
v	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Noted, Compliance assured.
vi	Noise levels emanating from turbines shall be so controlled such that the noise in the work zone	Complied.  Base line monitoring for Noise level is

	<p>shall be limited to 85dB (A) from source. For people working in the high noise area, requisite personal protective equipments like ear plug/ear muff 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.</p>	<p>being already carried out through MOEF&amp;CC recognized laboratory and the same will be continued.</p> <p>Personal Protective Equipment (PPE's) are also being provided to personnel working in high noise areas. Periodic examination of workers also being done as stipulated.</p>
vii	<p>Regular monitoring of ambient air ground level concentration of SO<sub>2</sub>, NO<sub>x</sub>, PM<sub>2.5</sub> &amp; PM<sub>10</sub> and Hg shall be carried out in the impact zone and record 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.</p>	<p>Four numbers of CAAQMS station are provided and the locations of AAQMS were finalized in consultation with CECB. Regular monitoring of ambient air quality, ground level concentration of SO<sub>2</sub>, NO<sub>x</sub>, PM<sub>2.5</sub> &amp; PM<sub>10</sub> and Hg is being carried out through MOEF&amp;CC recognized laboratory and records are being maintained and submitted. Ambient air quality reports are enclosed.</p>
viii	<p>Provision shall be made for the housing of construction labor (as applicable) within the site with all necessary infrastructures and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project.</p>	<p>A labour colony with necessary infrastructure facilities such as housing, sanitation, mobile toilet, fuel, medical facilities, safety, drinking water supply etc. has been provided for construction labour.</p> <p>The same has been kept under the scope of EPC contractor. Further, NTPC is ensuring effective compliance of the said stipulations.</p>
ix	<p>The project proponent shall advertise in at least two local news papers 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</p>	<p>Complied.</p> <p>The information of Environmental Clearance was published in two newspapers widely circulated in the region;</p> <ol style="list-style-type: none"> <li>1. Navbharat on 18.12.2012.</li> <li>2. Kelo Pravah on 18.12.2012.</li> </ol>

	with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> .	
x	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila parishad/ Municipal Corporation, urban local body and the Local NGO, if any, from whom suggestions/representations, if any, received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	Complied.  The clearance letter is also available on website of NTPC <a href="https://www.ntpc.co.in/sites/default/files/downloads/Lara-1.pdf">https://www.ntpc.co.in/sites/default/files/downloads/Lara-1.pdf</a>
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 <sub>2.5</sub> & PM <sub>10</sub> ), SO <sub>2</sub> , NO <sub>x</sub> (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 latest and updated Half Yearly Compliance (HYC) report of EC conditions is regularly being submitted to the Regional Office (West Central Zone) of MOEF&CC, Nagpur.  The display for criteria pollutant levels at a convenient location near the main gate of NTPC Lara STPS has been done for Stack emissions and is under implementation for ambient air.
xii	The environment statement for each financial year ending 31 <sup>st</sup> 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 annual Environment Statement for financial year ending 31 <sup>st</sup> March in prescribed Form-V has been submitted to CECB as well as Regional Office (West Central Zone) of MOEF&CC, Nagpur for the year 2020-21.
xiii	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental	The half yearly compliance report is being regularly submitted to the concerned statutory authority.

	<p>safeguards to the Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by email to the Regional office, Ministry of Environment and Forests.</p>	<p>The latest six monthly progress report for the period of October, 2021 to March, 2022 is being submitted herewith.</p>
xiv	<p>Regional office of the Ministry of Environment &amp; Forests 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 &amp; ambient air) shall be displayed at the main gate of the power plant.</p>	<p>A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information/ clarifications as submitted to MOEF&amp;CC have been forwarded on 11.07.2013 to the Regional Office of MOEF&amp;CC.</p>
xv	<p>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 purpose and year-wise expenditure should be reported to the ministry.</p>	<p>Item-wise break-up for implementation of environmental protection measures along with status of expenditure is enclosed as <b>Annexure-I</b>. Separate funds have already been allocated for implementation of environmental protection measures and the same will not be diverted for other purpose.</p>
xvi	<p>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</p>	<p>Investment approval for the project was accorded by Board of Directors on 07.11.2012, which may be considered as the date of financial closure. The Commercial operation of Unit#1 (800 MW) started on</p>

	land development work and commissioning of plant.	01.10.2019 and of Unit#2 (800 MW) started on 07.11.2020.
xvii	Full cooperation shall be extended to the Scientists/officers from the Ministry/ Regional Office of the Ministry/ CPCB/ SPCB who would be monitoring the compliance of environmental status.	Noted, Compliance assured.
5.	The Ministry of Environment and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. The Ministry may also impose additional environmental conditions or modify the existing ones, if necessary.	Noted.
6.	The environmental clearance accorded shall be valid for a period of 5 years to start operations by the power plant.	Noted.
7.	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 Environment (Protection) Act, 1986.	Noted
8.	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 condition(s) imposed and to add additional environmental protection measures required, if any.	Noted.
9.	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 Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008 and its amendments, the Public Liability Insurance Act, 1991	Noted.

	and its amendments.	
10.	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.

### **EC Amendment dated 14.01.2020**

<b>Sr. No.</b>	<b>Description</b>	<b>Status of Implementation (As on 31.03.2022)</b>
<b>Coal transportation by road</b>		
i)	The quantities transported from each route, mode and length of transportation, and total quantities transported daily-wise against the permitted quantity of each route as per the permission issued by the Ministry and power generation in terms of PLF/Units shall be submitted to the ministry as part of six monthly compliance report. These quantities will be examined by the EAC during further extension based on which a decision will be taken.	The data attached with the report.
ii)	Progress (Physical and financial) of MGR laying from Talaipalli mine to Lara Power Plant shall be submitted.	<p>NTPC Lara connectivity to Kotarliya Rail head has been completed and operational. Talaipalli Mines connection to Kotarliya rail head is in progress. 64.5 K.M. construction completed out of total 65 K.M. route length for Talaipalli to Lara connectivity.</p> <p>2017 Crores expenditure has been incurred till date out of total 2258 Crores (Estimated Expenditure).</p>
iii)	At least two water sprinklers on each route shall be deployed for dust suppression continuously during transportation. The number of sprinklers used and the quantity of water (in KLD)	Two water sprinklers(3KLD per tanker) each have been deployed on the each coal transportation route for dust suppression continuously during transportation. Quantity of water (in KLD) is 18 KLD.

	sprinkled daily shall be reported as part of six monthly compliance report.	
<b>Additional conditions in the Environmental Clearance</b>		
iv)	Progress (Physical and financial) of construction FGD and De-NOx measures shall be submitted as part of six monthly compliance report.	<p>Noted. Compliance assured.</p> <p>NTPC Lara has already awarded contract for installation of FGD to M/s L&amp;T on 31.07.2018 for controlling SOx concentration in flue gas in compliance to the latest MOEF&amp;CC emission norms dated 07.12.2015 for TPP. The installation of FGD is in progress. Flue can erection completed in U#1. Shell casting completed for U#2 and Flue can erection to start.</p> <p>305 Crores Expenditure done out of total 485 Crore Package value.</p> <p>NTPC Lara boilers are equipped with Low NOx burners and OFA dampers.</p>
v)	Technology selection for adoption of FGD for control of SOx. In case of wet FGD, source of Limestone, impact of transportation, handling, storage and disposal of Gypsum including land requirement.	<p>Noted. Compliance assured.</p> <p>Wet FGD has been selected at NTPC Lara.</p>
vi)	Alternate technology analysis and justification of Technology Selection for NOx reduction.	Noted. Compliance assured.
vii)	Water requirements for FGD to be installed in the existing units has to provided. Therefore, water balance to be modified based on the water requirement for whole Units including a plan on ZLD.	Water requirement of FGD is 420 m <sup>3</sup> /hr. Water balance has been modified based on the water requirement for whole Units including a plan on ZLD.
viii)	Emission norms and specific water consumption as per the Ministry's norms dated 7.12.2018 and 28.6.2018 shall be complied with. As committed, Flue-gas Desulphurisation Unit and Selective Reactor to control SO <sub>2</sub> and NO <sub>x</sub> respectively shall be installed.	Noted. Compliance assured.



ix)	<p>The stack emissions (minimum, maximum, average and 98% percentile) shall be submitted for the period of six months in the compliance report. Further, daily water withdrawal, consumption, water generation and average PLF shall be submitted. The specific water consumption per MWhr shall be calculated based on water consumption and power generation and to be submitted in the compliance report.</p>	<p>Stack Emissions (mg/Nm<sup>3</sup>):</p> <table border="1" data-bbox="784 254 1453 701"> <thead> <tr> <th>Sr. No.</th> <th>Description</th> <th>Unit</th> <th>PM</th> <th>SO<sub>2</sub></th> <th>NO<sub>x</sub></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Minimum</td> <td>I</td> <td>22.35</td> <td>979</td> <td>274</td> </tr> <tr> <td>2</td> <td>Maximum</td> <td>I</td> <td>26.4</td> <td>1172</td> <td>371</td> </tr> <tr> <td>3</td> <td>Average</td> <td>I</td> <td>24.03</td> <td>1072</td> <td>295</td> </tr> <tr> <td>4</td> <td>98% Percentile</td> <td>I</td> <td>25.98</td> <td>1168</td> <td>365</td> </tr> <tr> <td>5</td> <td>Minimum</td> <td>II</td> <td>21.39</td> <td>980</td> <td>268</td> </tr> <tr> <td>6</td> <td>Maximum</td> <td>II</td> <td>25.1</td> <td>1206</td> <td>369</td> </tr> <tr> <td>7</td> <td>Average</td> <td>II</td> <td>23.6</td> <td>1087</td> <td>294</td> </tr> <tr> <td>8</td> <td>98% Percentile</td> <td>II</td> <td>24.97</td> <td>1199</td> <td>363</td> </tr> </tbody> </table> <p>Average PLF for 01.10.2021 to 31.03.2022 is 82.38 %. Water Withdrawal Report has been attached. Total power generation is 5757441.8 MWhr.</p>	Sr. No.	Description	Unit	PM	SO <sub>2</sub>	NO <sub>x</sub>	1	Minimum	I	22.35	979	274	2	Maximum	I	26.4	1172	371	3	Average	I	24.03	1072	295	4	98% Percentile	I	25.98	1168	365	5	Minimum	II	21.39	980	268	6	Maximum	II	25.1	1206	369	7	Average	II	23.6	1087	294	8	98% Percentile	II	24.97	1199	363
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x)	<p>The plant shall operate only after meeting the new emission norms as notified by the Ministry. Else, extension of timeline from the CPCB for implementing pollution control measure for meeting new norms shall be obtained and a copy of the same shall be submitted to the Ministry.</p>	<p>Noted. Compliance assured.</p>																																																						

**EC Amendment dated 21.10.2020**

Sr. No.	Description	Status of Implementation (As on 31.03.2022)
i)	<p>The condition No. xxx of EC dated 13.12.2012 regarding CSR expenditure is hereby deleted.</p>	<p>Noted.</p>
ii)	<p>The condition No. vii of EC dated 13.12.2012 is modified as:            "Bi-flue stack of 275m height with flue gas velocity not less than 22 m/s shall be installed and continuous online monitoring equipment's for SO<sub>x</sub>, NO<sub>x</sub>, and PM mercury emissions from stack may also monitored on periodic basis."</p>	<p>Noted. Compliance assured.</p>
iii)	<p>The General Condition No. v of EC</p>	<p>Noted. Compliance assured.</p>

	dated 13.12.2012, is modified as: "Radio activity and heavy metals' contents in coal and fly ash (including bottom ash) shall be carried out through a reputed institute once in a year and the analysis reported to be submitted to the Ministry and its Regional Office."	
iv)	The total Radio-activity in the working areas such as coal stock yard, fly ash pond shall be calculated based on the analysis results per unit weight of coal/ash. The total radio-activity in the atmosphere is to be compared with the maximum permissible dosage levels of each person working in those areas. This is to be conducted once in a year.	Noted. Compliance assured.
v)	While commissioning the proposed unit, the compliance of revised emission norms issued vide Notification dated 07.12.2015 and as amended time to time shall be achieved along with specific water consumption as per the notification dated 28.06.2018. The FGD System and NOx control measures such as SCR/SCNR/De-NOX burners shall be installed to achieve the revised emission norms.	Noted. Compliance assured.
vi)	As per the Revised Traffic 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 surface water bodies. The details of sewage Treatment plants located within 50km radius along with the capacities shall be submitted.	Noted. Compliance assured.

## Annexure-I

### PROVISIONS FOR CAPITAL COST FOR ENVIRONMENTAL PROTECTION MEASURES AT LARA STPP, STAGE-I

Sr. No	Description of Item	Cost (Rs in crores)	Actual Exp.as on 31.03.2022 (Crores.)
1.	FGD	485	290
2.	Electrostatic Precipitators	199	189.78
3.	Stacks	69.75	69.75
4.	Cooling Towers incl. Civil Works	124	120
5.	Ash Handling	139.33	133.19
6.	Ash pond dyke	67.44	45
7.	Water Treatment Plant (Effluent Treatment Plant, DM Plant, DM Plant Waste Treatment System	49.0	46.55
8.	Dust Extraction & Suppression System	2.27	2.27
9.	Sewage Collection, Treatment & Disposal (STP)	3.50	3.50
10.	Environmental Lab Equipment	3.49	3.49
11.	Green Belt & Afforestation	8.27	5.32
	Hariyar Chhattisgarh Scheme for Tree Plantation	9.29	9.29
12.	Compensatory Afforestation	3.91	3.91
13.	NPV for forest land diversion	9.50	9.50
14.	Works for deepening of ponds under water conservation & rain water harvesting	1.59	1.59
	<b>Total</b>	<b>1175.34</b>	<b>933.14</b>