



**SIX MONTHLY COMPLIANCE REPORT
OF
ENVIRONMENTAL CLEARANCE**

1980 (3x660) MW THERMAL POWER PLANT

at

**MIRCHWARA, DISTRICT LALITPUR
UTTAR PRADESH**

Submitted to:

**Regional Office (Central Zone), MoEF, Lucknow
Member Secretary, UPPCB, Lucknow
Ministry of Environment & Forests, New Delhi
RO Office, UPPCB, Jhansi (UP)**

Submitted By:

**Environment, Occupational Health & Safety Department
Lalitpur Power Generation Co. Ltd.
B-10, Bajaj Bhawan, Sector-3,
Noida- 201301, UP**

PERIOD: October 2020 to March- 2021

Compliance status on Environmental Clearance
(3 X 660 MW Coal based Thermal Power Plant)
 LETTER NO. J-13012/118/2009-IA. II (T) Dated 31.03.2011 and
 Subsequent amendment in Environmental Clearance vide
 LETTER NO. J-13012/118/2009-IA.II (T) Dated 20.05.2014

SL. NO.	SPECIFIC CONDITIONS	
	DETAILS	ACTION DETAILS
1.	Vision document specifying prospective plan for the site shall be formulated and submitted to the Ministry within six months	Vision document specifying prospective plan for the site was formulated and submitted to ministry within due time.
2.	Coal transportation to plant site shall be by rail. The project proponent shall take up the matter with the Railways and shall submit action taken and implementation status to the Ministry from time to time.	The coal is being transported to plant site through rail line only.
3.	Existing de-generated water bodies (if any) in the study area shall be regenerated at the project proponent's expenses in consultation with the state Government.	There are no existing degenerated water bodies in the study area.
4.	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 and 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.	Hydro-geological study of the area has been carried out by M/s. Spatial Geotech Pvt. Ltd., NOIDA. Water quality is being monitored and submitted regularly to the Regional Office of the Ministry. The Hydrogeology report is attached as annexure-1.
5.	Source of water for meeting the requirement during lean season shall be specified and submitted to the Regional Office of the Ministry within three months	We are having agreement with UP Irrigation to cater the water from Kachnauda Dam during lean season apart from Rajghat Dam.
6.	No ground water shall be extracted for use in operation of the power plant even in lean season.	Strictly complying , Ground water is not being extracted for the use of power plant operation.
7.	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.	Strict complying , no water bodies in the area have been disturbed due to activities associated with the setting up / operation of the power plant.

		"Our water management with sustenance of the sanctity of ground water and rivers in and around our plants has been appreciated by Ministry of Jal Shakti Department of Water Resources, Govt. of India with Awards and cash & citation in 2020"
8.	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.	NA
9	Water requirement shall be restricted to 5000 cum/hr and COC of 5.0 shall be adopted	Our Water requirement is less than 5000 cum/hr and COC is >5.0.
10	Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new piezometers. 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.	Piezometers have been installed & quality monitoring particularly for heavy metals (Hg, Cr, As, Pb) around the ash pond is being carried out. Recent reports are enclosed as Annexure 2 .
11.	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. Monitoring for heavy metals in ground water shall be undertaken.	Surface water quality in the area is being monitored regularly and record is also maintained. Monitoring points are located as prescribed between the plant and drainage towards the direction of flow of ground water. The reports are enclosed as Annexure 3 .
12.	A well designed rainwater harvesting shall be put in place before commissioning of the plant. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology/design within a period of three months from the date of this	Complied; Rain Water Harvesting system/structures within the Plant have been constructed, comprising of : Check Dam – 1 No. Pond with Bore – 1 No. Nala revival – 880 mtrs

	clearance and details shall be furnished. The design of rain water harvesting shall comprise of rain water collection from the built up and open area in the plant premises. Action plan and road map for implementation shall be submitted to the Ministry within six months.	Percolation well- 5 Nos. Bore well - 24 Nos.
13	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.	Compiled , and no natural drainage system of the area is disturbed or used for any purpose.
14	Provision for installation of FGD shall be provided for future use.	Space is kept for installation of FGD.
15	The project proponent shall undertake measures and ensure that no fugitive fly ash emissions take place at any point of time	Fly ash silo are equipped with pneumatic chute to fill the ash in the Bulkheads as well as Silo area is isolated by the partition wall to control fugitive fly ash emission. Additionally, mobile water sprinklers are also deployed to suppress the occasional fugitive dust while movement of vehicles. The dust suppression and extraction equipment's are also installed to prevent the fugitive emission.
16	Stack of 275 m height shall be installed and provided with continuous online monitoring equipments for SO _x , NO _x and PM _{2.5} & PM ₁₀ . Exit velocity of flue gases shall not be less than 22 m/sec. Mercury emissions from stack may also be monitored on periodic basis	A stack of 275 meters height has been constructed and continuous online monitoring equipments for SO _x , NO _x and PM _{2.5} & PM ₁₀ are installed. 22 m/sec exit velocity of flue gas is being maintained.
17	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm ³ .	High Efficiency Electrostatic Precipitators with 275 meters stack is installed. The particulate emission is maintained below 50 mg/Nm ³ . Report is enclosed as Annexure 4 .
18	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.	To control fugitive emission, rain gun type water sprinkling system has been installed in coal yard. Closed conveyor belts are provided. Cyclones followed by bag filters are installed at each coal transfer points (JNT's). Additionally, mobile water sprinklers are deployed at

		CHP area to suppress fugitive dust while movement of vehicles.
19	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.	Complied. The 100% utilization Fly Ash has been achieved before 4 th year of the power plant operation. Status of implementation is submitted to the Regional Office of the Ministry.
20	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.	Fly ash is being collected in dry form. 6 silos are provided for storage. Unutilized fly ash is being disposed off in ash pond in the form of slurry. Mercury and other heavy metals (As, Hg, Cr, Pb etc.) are being monitored in the bottom ash and effluents emanating from the existing ash pond. Recent analysis report is enclosed as Annexure-5.
21	Ash pond shall be lined with HDP/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.	Compliance assured. Well-designed Ash dyke with HDPE lining have been established as per guidelines of MoEF, CEA and CPCB. Regular monitoring also is being carried out.
22	Sulphur and ash contents in the imported coal to be used in the project shall not exceed 0.7 % and 10 % 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.	We have been granted domestic coal for 3 x 660 MW units.
23	Green Belt consisting of 3 tiers of plantations of native species around plant and at least 100 m width shall be raised. Wherever 100 m width is not feasible a 50 m width shall be raised and adequate justification shall be submitted to the Ministry. Tree density shall not less than 2500 per ha with survival rate not less than 80 %.	Green belt development/ plantations are carried out extensively. Efforts are made to develop more greenery in and around plant premises. Full-fledged nursery has been developed for afforestation & horticultural activities. In last 5 years we have put 2.67 lakh of trees within the campus specially in dusty area like wagon Tripler, silos, etc. The green belt details are enclosed as annexure-6.

24	Atleast three nearest village shall be adopted and basic amenities like development of roads, drinking water supply, primary health centre, primary school etc shall be developed in co-ordination with the district administration.	Three nearest village viz. Mirchwara, Badagaon and Surikalan have already been adopted in co-ordination with District Administration. All the basic amenities like water, health camps, sanitation, etc. are being provided regularly.
25	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.	Providing potable drinking water supply in the nearby villages and schools are undertaken in a time bound manner to contribute in the development of the neighboring villages.
26	CSR scheme shall be identified based on need based assessment in and around the villages within 5.0 km of the site and in constant consultation with the village Panchayat and the District Administration. As part of CSR prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken. Income generating projects consistent with the traditional skills of the people shall be undertaken. Development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes. Vocational training programme for possible self employment and jobs shall be imparted to identity villagers free of cost.	We are working through Kamal Nayan Jamnalal Bajaj Foundation (KJBF) for CSR activities at LPGCL plant site. KJBF is a reputed non-profit making NGO working for the socio-economic development of the society. KJBF has been actively involved in community development programmes in more than 400 villages in the farmers' suicide prone zone Wardha district of the Vidarbha region focussing on rain water harvesting structures in partnership with local people, Govt. and development organizations like Sir Ratan Tata Trust, NABARD, etc. Confederation of Indian Industries (CII) and FICCI has awarded National Awards to KJBF for, "Excellence in Water Management-Beyond the Fence" category, for executing our CSR activities in professional manner. CSR scheme is being put within 5.0 Km of the site in consultation with the village Panchayat and the District Administration based on need based assessment. Vocational training for possible self employment and jobs is also being imparted to identify villagers free of cost.
27	An amount of Rs 49.10 Crores shall be	Dedicated fund of Rs 49.10 Crores as

	earmarked as one time capital cost for CSR programme as committed by the project proponent. Subsequently a recurring expenditure of Rs 9.8 Crores per annum shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within six month along with road map for implementation.	capital cost and of Rs 9.8 Crores per annum for recurring expenditure is being utilized gainfully for implementation of CSR activities.
28.	It shall be ensured that in-built monitoring mechanism for the 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 annual social audit has been conducted and report submitted. For current year, annual report is enclosed as Annexure 7 .
29.	The source of coal has been changed from imported to domestic coal, resulting in higher generation of fly ash there by the project proponent should ensure 100% fly ash utilization as per the Notification, 1999 and its amendments thereof. An action plan and its implementation status in compliance to the fly ash utilization shall be submitted to the Regional Office of MoEF on an annual basis.	Compliance assured , we have achieved the 100% Ash utilization before 4th year of operation.
30.	The coal transportation by road shall be through tarpaulin covered trucks for a maximum period of two years and thereafter shall be only through mechanically covered trucks.	Complied , now all the coal is transported through Rail rakes.
31.	Avenue plantation of 2/3 rows all along the road shall be carried out by the project proponent at its own expenses in consultation with the State Government Authorities.	Complied, The coal is transported through Rail rakes only.
32.	Periodic maintenance of the road shall be done by the project proponent at its own expenses and shall also facilitate the traffic control on the road in consultation with the State Government Authorities.	We are not using the road transport. The coal is transported through Rail rakes only.
33.	Sulphur and ash contents in the domestic coal to be used in the project shall not exceed 0.5% and 33% at any given time. In case of variation of coal quality at any point of time, fresh	Under strict compliance. Sulphur & ash contents are <0.5% and 33.0%, respectively. Analysis report is attached as Annexure-8 .

	reference shall be made to the Ministry for suitable amendments to environmental clearance condition wherever necessary.	
34.	A long term study of radio activity and heavy metals contents 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.	Radioactivity in coal is being analyzed through the Laboratory of Bhabha Atomic Research Centre, Trombay, Mumbai. 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. The recent report is enclosed as annexure-9 .
35.	Harnessing solar power within the premises of the plant particularly at available roof tops shall be undertaken and status of implementation shall be submitted periodically to the Regional Office of the Ministry.	Solar lamps, lights & lanterns, etc. are provided to the villagers and a consultant is taken on service to prepare pre-feasibility reports particularly at available roof tops. Implementation is in process. A 5.76 KW already installed on Canteen roof.
36.	Fugitive emissions shall be controlled to prevent impact on agricultural or non-agricultural land.	Complied, All the appropriate measures are in place to control the fugitive emissions to prevent impact on agricultural or non-agricultural land.
37.	Fly ash shall not be used for agricultural purpose. No mine void filling will be undertaken as an option for ash utilization 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 PCB.	Strictly complying. The option of mine void filling shall 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 in coordination to State Pollution Control Board.
38.	Green belt shall also be developed around the Ash Pond over and above the Green Belt around the plant boundary.	Green belt around the Ash pond and around the boundary are developed and maintained. The photographs are attached as annexure-10 .
39.	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	Environmental Management Cell is already in place since inception headed by the Executive Director reporting to Head of the organization. The detail of Environment Management Cell has

	stipulated in this clearance letter and other applicable environmental laws and regulations.	already been submitted. The details off Environment Management Cell are attached as annexure-11.
Sl. No.	GENERAL CONDITIONS	
	Details	Action Details
1.	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.	Treated effluent is conforming the prescribed standards and being recycled & reused in process within the Plant, gainfully. Both storm water & effluent drains are separate and there are no chances of its mixing. Recent effluent analysis report is enclosed as annexure-12.
2.	A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation.	A appropriate capacity sewage treatment plant has already been installed and treated sewage is being utilized in horticulture/raising greenbelt & toiletry flush. The recent analysis report is enclosed as annexure-13.
3.	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.	All the standard safety practices are in place apart from effective control measures. Well-designed Fire hydrant system covering entire Plant is in place. Details are : Fire extinguishers- 1230 Nos., Fire Hydrant Point- 353 Nos., Hose reel- 55 Nos., Water monitor- 69 Nos., Fire tender- 2 Nos., Jet gun (CHP)-80 Nos., MVWS & HVWS- In cable gallery, conveyors & transformer area
4.	Storage facilities for auxiliary liquid fuel such as LDO and/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.	The fuel LDO properly stored in minimum risk area & as per the norms fixed by the Chief Controller of Explosive. Disaster management plan and On-site emergency plan prepared & Mock drills are being conducted periodically to meet any eventuality in case of an accident taking place due to storage of oil.
5.	First Aid and sanitation arrangements shall be made for the drivers and other contract	First Aid and sanitation arrangements have been provided for drivers and

	workers during construction phase.	other contract workers during construction phase.
6.	Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 85 dBA 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.	Noise level in the work zone is restricted to 85 dBA from source. Personnel protective equipment like earplugs/ear muffs are provided to people working in noisy area. Audiometric test are carried out periodically and records maintained for treatment for any hearing loss apart from shifting to non noisy/less noisy areas. Analysis report attached as Annexure-14 .
7.	Regular monitoring of ambient air ground level concentration of SO _x , NO _x , PM _{2.5} & PM ₁₀ and Hg shall be carried out in the impact zone 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.	Strictly complying, Regular monitoring of ambient air ground level concentration of SO _x , NO _x , PM 2.5 & PM 10 and Hg carried out in the impact zone on the locations and frequency as decided in consultation with SPCB. Reports are enclosed as Annexure-15 .
8.	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, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Complied, Temporary housing to construction labour was provided within the site with all necessary infrastructure and facilities. Temporary housing and facilities has already been removed after the completion of the project.
9.	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 State Pollution Control	Complied, Environmental clearance detail had already been published in two local news papers for public information.

	Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in .	
10.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad / 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, Copy of the Environment Clearance letter had also been sent to concerned Panchayat, Zila Parisad / Municipal Corporation, urban local Body and the Local NGO. Environment Clearance is also web hosted on the web site of the company.
11.	An Environmental Cell comprising of atleast one expert in environmental science / engineering, occupational health and social scientist, shall be created at the project site itself and shall be headed by an officer of appropriate superior and qualification. It shall be ensured that the Head of the Cell shall directly report to the head of the organization and he shall be held responsible for implementation of environmental regulations and social impact improvement/mitigation measures.	Environmental Management Cell is already in place headed by Chief Sustainability Officer reporting to Head of the organization. The details are enclosed as annexure-16 .
12.	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 _x , 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.	Report on status of compliance of conditions of Environmental Clearance is being submitted to Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB and reports are also web hosted on company web site. SPM, RSPM (PM _{2.5} & PM ₁₀), SO _x , NO _x , (ambient levels as well as stack emissions) being arranged to be displayed at a suitable location near the main gate of the company.
13.	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 PCB as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company	Environmental Statement for the each financial year ending 31 st March is being submitted in Form-V to State Pollution Control Board. Environmental Statement along with compliance status of Environmental Clearance is also web

	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.	hosted on company web site.
14.	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental 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 e-mail to the Regional Office, Ministry of Environment and Forests.	Six monthly compliance status reports along with data is being submitted regularly to UPPCB/CPCB/MoEF and also has been made available on the Website.
15.	Regional Office of the Ministry of Environment & 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 & ambient air) shall be displayed at the main gate of the power plant.	Environmental Impact Assessment Report and Environment Management Plan have already been submitted to Regional office of MoEF, Lucknow. Compliance status up-loaded on company web site. Criteria pollutants levels including NOx (from stack & ambient air) will be displayed at the main gate of the power plant.
16	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.	Funds allocated for implementation of environmental protection measures are fully dedicated by utilizing for Environmental Protection measures and have not been utilized for other purpose.
17	The project authorities shall inform the	Financial closure (Original) –

	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.	24.08.2011 Final approval of the project by the concerned authorities – MoU with Govt of UP was signed on 22.04.2010. Dates of start of land development work – 20.12.2010 Commissioning of plant - 01.10.2015 (Unit I) 08.01.2016 (Unit II) 01.04.2016 (Unit III)
18	Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry at Lucknow/CPCB/ SPCB who would be monitoring the compliance of environmental status.	Full support will be extended to the Scientists/Officers from the Ministry/ Regional Office of the Ministry during the monitoring of compliance of environmental status.

Thanking you.

Your's faithfully
For Lalitpur Power Generation Company Ltd.

B. Singh

Authorized signatory

CC To

- The Chief Environment Officer, Circle-2, Uttar Pradesh Pollution Control Board, Lucknow
- The Regional officer UP Pollution Control board ,Jhansi

Encl: As Above