

**Staus of Compliance of Environmental Norms Stipulated in Environmental Clearance for Nabinager Thermal Power Project
(4x250MW) of BRBCL 31.03.2024**

S.No	STIPULATIONS	Comments	Present status
i	All the conditions stipulated by Bihar Pollution Control Board vide their letter no. T-2130 dated 08.04.2004 should be strictly implemented.	All the conditions stipulated by BSPCB has been complied	complied
ii	Land requirement should not exceed 1700 Acres. Copy of R&R plan and package of compensation for 320 families should be submitted to the Ministry before starting the work on the project.	BRBCL land acquisition will be less than 5126 Acres.R&R policy already submitted.Total amount paid against land compensation till date is Rs 324.46 Crores	Complied
iii	Coal requirement is estimated at 5.0 MTPA having 40-47% ash content and 0.36-0.50% Sulphur content. Copy of confirmed coal linkage should be submitted to the Ministry within three months from the date of issue of this clearance letter.	Copy of confirmed linkage letter has been submitted	Complied
iv	Two twin flue stacks of 220m height each shall be provided with continuous online monitoring equipment. Exit velocity of 20-25m/sec should be maintained.	Connected to CPCB&BSPCB SERVER.Exit velocity is maintained	Complied
v	High efficiency Electrostatic Precipitator (ESP) having efficiency of 99.9% should be installed to limit outlet SPM emission of 100mg/Nm ³ .	Completed.FGD erection is under progress which will further reduce emission.	Complied
vi	Ash generation will be 5500 TPD of both fly and bottom ash. Ash generated should be utilised as per provisions of the notification on Fly Ash Utilisation issued by the Ministry in September, 1999 and its amendments. By the end of 9th year full fly ash utilisation should be ensured.	We have provision for Dry and wet disposal of Fly ash and wet disposal of Bottom ash. Provisions of the notification on Fly Ash Utilisation shall be complied.	FY 22-23 Ash utilisation is approx. 76%.FY 23-24 is 71% .Effort is being made to achieve 100% as per new policy
vii	Water requirement should not exceed 4295 m ³ /hr. Waste water should be recycled and used in the plant. Copy of confirmed water withdrawal should be submitted to the Ministry within three months from the date of issue of this clearance letter.	water is being recycled to the maximum extent.Present specific water consumption is less than 3.0 M ³ /MWH. Water agreement signed with Bihar State Government Water Resource Department and submitted.	complied
viii	Care has to be taken that the runoff may so guided so that the local rain fed shallow reservoir, shallow rice terraces are not deprived of the surface runoff and a very careful Geo-hydrological mapping and designing has to be taken up to ensure that the local cultivation in the neighbourhood of the power plant is not adversely affected due to altered hydological regime. The Project authorities should get this done by a professional competent authority before commencing construction work and submit a copy of the same to MoEF within three months from the date of issue of this letter.	completed	Final report submitted

ix	The distance from the HFL to the boundary of ash pond must be minimum 600m and out of 600m, a 100m wide green belt around the ash pond should be developed.	Requisite distance between HFL to boundary exists (more than 600 m) and provision has been kept for green belt of 100 m wide around ash pond . Presently ash pond construction is in progress. Green belt development has started and will be completed progressively by Aug 2023	Plantation is in progress and will be completed progressively by Forest deptt. Gov. of Bihar
x	A systematic management of ash pond is required. The ash pond should be partitioned into compartments. The filling of ash pond should first start from the site close to the river end. Plantation should be taken up along the set back area whenever dyke height is increased.	Ash pond is constructed as per design envisaged by our Corporate Centre. However during visit of MoEF officers dt:22.03.2018 and letter issued vide ref no 105-23/04/EPE/2274 dt:30.05.18 a new condition was laid for laying HDPE layer in Ash Pond.	Lagoon 1 construction is completed and Lagoon 2 is under progress. Ash pond soil permeability is also very less. As it has not been mentioned in EC a letter vide no BRBCL/EMG/2022/8 dated 10.03.2022 has been submitted in MoEF office regarding exemption from new condition
xi	Garland drain of sufficient capacity should be provided around ash pond to prevent any overflow of water to the river. Seepage water from the garland drain should be pumped back and recycled.	Provision exist for the same in ash dyke being constructed. The ash dyke will be finished in phases and phase wise stipulated requirement shall also be met. Garland drain is under construction due to some land dispute.	Presently the water from ash dyke is being recirculated
xii	Special arrangements should be made for the river bank protection to prevent bank erosion of the river all along the project area. Protection measures should be taken for a length of 2.5 Km upstream of the project. The length of the bank downstream which needs similar protection has not been determined. The Project authorities should undertake expeditiously all the bank protection measures and to maintain the protective structure in good condition throughout the life of the project.	Complete land for makeup water system has not been acquired yet. River bank protection will be done along with permanent make up water corridor completion. CWPRS has carried study, Final report has been submitted .Scheme finalization is under progress	Engineering process is under progress due to change in location. Two studies are under progress-report received
xiii	The river bank embankment should be taken early along with the site development.	River bank protection will be done along with permanent makeup water corridor development. CWPRS has carried study, Final report has been submitted. Scheme finalization is under progress	Engineering process is under progress due to change in location. Two studies are under progress-report received

xiv	A systematic water harvesting plan should be prepared for surface storage of water within the plant area so as to minimise the anticipated withdrawal of river water.	Provision exists for the same with LEH, CSSI and AWRS to minimise withdrawal of water from river. As water table is very high in this area a contract has been initiated to study effectiveness of rainwater utilisation which will be awarded by 31.05.2022 and report will be submitted by Dec 22	Report has been submitted by M/S Sujalam consultants. According to report 11 lakhs m3 rainwater can be harvested, is equivalent to 14 days water consumption that includes sewage and
xv	A ground water monitoring station to be set up between the ash pond and the river front. Regular monitoring of water quality including heavy metals should be undertaken around ash dyke and the project area to ascertain the change in the water quality, if any, due to leaching of contaminants from the ash disposal area.	Provision for ground water quality measurement around ash dyke in the form of hand pump/well exists. The same is being utilised for regular monitoring (by MoEF/CPCB approved agencies) of the ground water quality as stipulated.	complied. Report is enclosed
xvi	While planning the layout of the plant, care should be taken that the neighbouring villages are not subjected to undue noise, coal dust or any adverse environmental disturbances.	Taken care during plant design stage. Plant design meets various environmental norms.	complied
xvii	A proper planning and site evaluation should be based on satellite imageries rather than the old Survey of India Toposheets for a better idea of the current status.	Complied	complied
xviii	Noise level should be limited to 75 Leq and regular maintenance of equipment be undertaken. For people working in the area of generator and other high noise area, earplug should be provided.	Complied.	complied
xix	A 100 m green belt should be developed all around the power plant covering an area of 110 acres/ha.	Provision has been kept around plant area for development of green belt. Green belt development had already been started from June 18 and will be completed progressively by March 23	under progress by Forest Dept. Govt. of Bihar. 1.43 lakhs have already been planted covering an area of 143 Acres. Marked on BRBCL GLP is attached.
xx	Regular monitoring of the air quality should be carried out in and around the power plant and records be maintained. Periodic six monthly report should be submitted to Ministry.	Air quality is being monitored with AAQM stations and offline regularly (from MoEF approved vendor).	Report is being sent periodically. Six monthly report is attached
xxi	For controlling fugitive dust, regular sprinkling of water in vulnerable areas of the plant should be ensured.	Regular water sprinkling is being done to control fugitive dust in the plant.	complied
xxii	All other mitigative measures shall be taken as enumerated in Chapter 5 of the EIA report.	Mitigating measures for construction phase have been implemented and measures for operational phase are part of design.	complied
xxiii	The project proponent should advertise at least in two local newspapers widely circulated in the region around the project, one of which should be in the vernacular language of the locality concerned, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the state Pollution Control Board/Committee and may also be seen at the website of the Ministry of Environment and Forest at http://envfor.nic.in .	Complied	complied

xxiv	A separate environmental monitoring cell with suitable qualified staff should be set up for implementation of the stipulated environmental safeguard.	Complied	complied
xxv	Half yearly report on the status of implementation of the stipulated conditions and environmental safeguard should be submitted to this Ministry/ Regional Office /CPCB/SPCB.	Half yearly report on the status of implementation of the stipulated conditions and environmental safeguard have been submitted to BSPCB, Patna and regional office Ranchi regularly.	complied.Six monthly report attached.
xxvi	Regional office of the Ministry of Environmental & Forest located at Bhubaneswar will monitor the implementation of the stipulated conditions. Complete set of Environmental Impact Assessment Report and management plan should be forwarded to the Regional Office for their use during monitoring.	Complied	complied
xxvii	Separate fund should be allocated for implementation of environmental protection measures along with item wise break-up. These cost should be included as part of the project cost. The funds earmarked for the environmental protection measures should not be diverted for other purposes and year wise expenditure should be reported to the Ministry.	As per Feasibility report 344.45 Cr marked for environmental protection measures.	All facilities have been completed.Installation of FGD and combustion modification of Unit#1 and Unit#4 are under progress. Total estimated expenditure is approximately more than 1500 crores
xxviii	Full cooperation should be extended to the Scientists/Officers from the Ministry/Regional Office of the Ministry at Bhubaneswar/ the CPCB/ the SPCB who would be monitoring the compliance of environmental status.	Noted	complied

