

MAHARASHTRA STATE POWER GENERATION COMPANY LTD.

Bhusawal Thermal Power Station

(A Govt. Of Maharashtra Undertaking)

CIN: U40100MH2005SGC153648

An ISO 9001:2015, ISO 14001:2015
ISO 45001:2018, EnMS 50001:2011
Certified Units

Office of

The Chief Engineer

Bhusawal Thermal Power Station

Deepnagar, Tal. – Bhusawal

Dist – Jalgaon (M.S.) PIN –

425307



Ref. No. : BTPS/CE /Env /

No 0 0 2 6 8

Date:

17 JAN 2023

To,

Director,

Ministry of Environment, Forests & Climate Change,

Regional Office (WCZ),

Ground floor, East wing,

New Secretariat Building,

Civil lines Nagpur-440001.

Subject: Updated status of compliance of Environmental Clearance Conditions pertains to 2x500MW Bhusawal Thermal Power plant six monthly report (July-2022 to December-2022).

Ref.: - F.No.J-13011/12/2006-IA.II(T) Dtd.27.11.2006.

Respected Sir,

With reference to above subject, the updated status of compliance for the Environmental Clearance Conditions for unit no 4 & 5(500MW), BTPS for the period July-2022 to December-2022 is as follows.

S. N.	Environment Conditions	Present Status
1	All the conditions stipulated by Maharashtra Pollution Control Board vide their letter no. BO\RO(P&P)\CC-579 dated 08.08.2006 shall be strictly implemented.	Complied. Sewage Treatment Plant is Provided & is in service (Capacity 1000M³/Day), Effluent standards are maintained as per consent norms, treated sewage effluent is utilized for ash disposal & gardening. Operation & maintenance of STP Plant is done through Annual Operation and Maintenance contract. Effluent Treatment plant is provided & is in service (Capacity 855M³/Hr), Effluent standards are maintained as per consent norms, and treated effluent is utilized for ash disposal & plant activities at 2x500MW. Operation & maintenance of ETP Plant is done through Annual Operation and Maintenance contract. Bhusawal TPS has provided Ash Water Recovery system (commissioned on dtd.20.02.2017) & is in service. BTPS has achieved Zero liquid discharge; clear water is continuously recovered from ash water recovery system at ash bund and is utilized for ash disposal. Operation & maintenance of recovery system is done through annual contract. All conditions stipulated by MPCB are compiled by BTPS.

2	No additional land shall be acquired for the project including ash pond.	Additional land is not acquired for the project of 2×500 MW & for ash pond.
3	Particulate emission from the existing units shall not exceed 150 mg/Nm^3 and ammonia dosing system in unit 2 shall be completed by December, 2007 to limit the particulate emission within 150 mg/Nm^3 . In case of the proposed new units it shall not exceed 100 mg/Nm^3 .	Unit -3- Presently emission level is being monitored by improving the performance of ESP using AFGC system. Ammonia dosing system is in service since 2005. By dosing Ammonia gas continuously improves the efficiency of ESP & reduces SPM level. As per MPCB specified norms, Bhusawal TPS has maintained SPM level below 100 mg/Nm^3 of Unit- 3 (210MW). New Units i.e. Unit No. 4 & 5 SPM is below 50 mg/Nm^3 .
4	Fly ash shall be collected in dry form only and 100% fly ash utilization shall be ensured. However, in case of emergency, the unutilized fly ash shall be dumped in the existing ash pond in the form of high concentration slurry.	Complied. Presently Fly Ash utilization of 2×500 MW, BTPS for the period of July-2022 to December-2022 is 129.42 % .
5	The sulphur and ash content in the coal to be used for the power plant shall not exceed 0.6 % and 34 % respectively.	MoEF&CC, Govt. of India Gazette Notification dated 21.05.2020 has permitted to use of coal by Thermal Power Plants without stipulations as regards ash content. Hence it is requested to relax the condition of not use the high ash and Sulphur content coal.
6	Rain water harvesting shall be practiced. A details scheme for rain water harvesting to recharge the ground water aquifer shall be prepared in consultation with Central Ground Water Authority / State Ground water Board and a copy of shall same shall be submitted within three months to the Ministry.	Natural rain water flow is collected through collection channel and stored in storm water storage tank of capacity 3300 M^3 for the purpose of water percolation. Excess water is used for plant activities.
7	The treated effluent conforming to the prescribed standards shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon.	Treated effluent is recycled and reused for ash handling, sprinkler system in CHP, gardening and other plant activities. BTPS has provided ash water recovery system of capacity $1300 \text{ M}^3/\text{Hr}$.
8	Two single flue stacks of 275 m each with exit velocity of not less than 21 m/sec shall be installed with continuous on-line monitoring system.	Combine stack for Unit-4 & 5 is provided having height 275 meters. Online monitoring system is provided to the stack for parameter SPM, SO_2 & NO_x . The system is connected to CPCB and MPCB server.

9	Electrostatic Precipitators (ESPs) with an efficiency of not less than 99.9% shall be installed to limit particulate emission within 100 mg/Nm ³ . Automatic system for shutting down the power plant in the event of non-functioning of ESPs shall be installed.	Separate ESP of 72 fields is provided to both the boilers of Unit-4 & 5 followed by combine stack of height 275 meters. ESP efficiency of Unit 4 & 5 (2x500MW) 99.98 %
10	Regular monitoring of ground water in land around the ash pond area shall be carried out, records maintained and quarterly report shall be furnished to the regional office of the Ministry.	Groundwater of total 15 locations around ash pond is monitored quarterly by MOEFCC recognized agency. Reports attached.
11	A forestation shall be done in 100 acres of degraded forestland to be identified in close vicinity of the project area in consultation with the State forest department in lieu of greenbelt. Necessary allocation of funds in this regard shall be made and include in the project cost.	Tree plantation carried out within plant & colony premises – 108.435 Ha Trees Planted up to 31.12.2022 are 38409 Nos and percentage area covered under tree plantation is 43.05% letter given to SRO MPCB Jalgaon. This office has communicated with General Manager Nasik Region, Forest Development Corporation of Maharashtra, Nasik for getting 100 Acre degraded Forest Land regarding development of Green Belt vide letter no. TPS/CE(O&M)/CivilMaint/No.04826 Dtd 09/06/2018. Reminder letter regarding same also send vide letter no. 06071 Dtd.27.10.2022. Reply is awaited from the office of “The General Manager Nasik Region, Forest Development Corporation of Maharashtra, Nasik.”
12	First aid and sanitations and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	2x500MW project work already completed, these facilities were already provided during project stage.
13	Leq of Noise level should be limited to 75 dBA and regular maintenance of equipment be undertaken. For people working in high noise area, personal protection devices should be provided.	Personal protective equipments are provided to the people working in high noise area. Noise level measurement is carried out by MoEF approved agency once in a month.
14	Regular monitoring of the ambient air quality shall be carried out in and around the power plant and records maintained. Periodic quarterly reports shall be submitted to the Regional office of this ministry on six monthly basis.	AAQM is carried out by MoEF approved agency twice in a week at total 4 locations.(Report attached).
15	For controlling fugitive dust, regular sprinkling of water in coal storage area and other vulnerable area of the plant shall be ensured.	Dust suppression system is provided at all wagon tippers of Unit-3, 4 & 5. Dust extraction system is provided to crusher. Water sprinkling system is provided at CHP stack yard. Portable fogger system is provided at crusher house.

16	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 project, one of which shall 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 website of the Ministry of Environment and Forests at http:// envfor.nic.in .	Complied.
17	A separate environment monitoring cell with suitable qualified staff should be set up for implementation of the stipulated	Separate monitoring cell with suitable qualified staff is provided.
18	Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards should be submitted to this Ministry regional office / CPCB / SPCB.	Submitted regularly.
19	Regional Office of the Ministry of Environment of Forest located at Bhopal will monitor the implementation of the stipulated conditions. A complete set of Document including Environmental Impact Assessment Report of Environmental management plan along with additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring.	Complied.
20	Separate fund should be allocated to implementation of environmental protection measures along with the item wise break-up. This cost should be included as part of the project cost. The funds earmarked for the environment protection measures should not be diverted for other purposes and year wise expenditure should be reported to the Ministry.	Complied.

21	Full cooperation should be extended to the Scientist/officers from the Ministry / Regional Office of the Ministry at Bhopal/ the CPCB / the SPCB who would be monitoring the compliance of environmental status.	Yes, full cooperation given while every visit.
22	The Ministry reserves the rights to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry.	Complied.
23	The environmental clearance accorded shall be valid for a period of 5 year to the start of production operations by the power plant.	The environmental clearance was granted on 27/11/2006. And Project work has been completed within stipulated period.
24	In case of any deviation or alteration in the proposed project from that submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.	Complied
25	The above stipulations shall 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, the Manufacture, storage and Import of Hazardous Chemical Rules, 1989, Hazardous wastes (Management and Handling) Rules, 1989, the Public Liability Insurance Act, 1991 and amendments and rules made there under.	Complied

BTPS has taken all environmental mitigating measures for implementation and provision of system to achieve environmental clearance conditions, Consent conditions, MoEF & CC new norms within stipulated period under guideline of CPCB/ MPCB.

Encl:- As above

Yours faithfully



Mohan P. Ahvad
Chief Engineer (Gen O&M)
BTPS, Deepnagar