

The Member Secretary State Pollution Control Board Paribesh Bhawan A/118, Nilakantha Nagar Unit-8, Bhubaneswar

Ref. No. - TSL/PPA/ENV/12 Date: 2<sup>nd</sup> September 2024

(Sub: Submission of annual Env. Statement for 2023-24)

Ref:

- 1. Special Condition no. F (2) 19 of CTO Order vide No.- 4547/ IND-I-CON-6375, Dt.-23.03.2023.
- 2. General Condition No (vii) of Environmental Clearance issued to BPPL by MoEF & CC vide No. J -13012/ 91/2008-IA. II (T) Dt. 14.05.2010.

Dear Sir.

We are submitting herewith the Annual Environmental Statement (Form-V) for FY 2023-24 in respect of 135 (2 x 67.5) MW Captive Power Plant of M/s. Bhubaneshwar Power Private Limited, Anantapur.

Further we would like to appraise you, Bhubaneshwar Power Private Limited has already been amalgamated into and with Tata Steel Limited w.e.f 1st July, 2024.

This is for your kind perusal.

Thanking you,

Yours faithfully. For Tata Steel Limited Power Plant Athagarh

Debab-8h **Authorised Signatory** 

Debasish Pattnaik

(Encl: Form-V for FY 2023-24 containing 6 pages)

#### Copy to:

- 1. Regional Director (EZ), MoEF & CC, A/3, Chandrasekharpur, Bhubaneswar-751023
- 2. Regional Officer, State Pollution Control Board, 586, Surya Vihar, Link Road, Cuttack, Odisha

# TATA STEEL LIMITED

Power Plant Athagarh Anantapur Dhurusia Cuttack 754027 Registered Office Bombay House 24 Homi Mody Street Fort Mumbai 400 001 India Tel 91 22 6665 7371 Website www.tatasteel.com Corporate Identification Number L27100MH1907PLC000260



The Member Secretary State Pollution Control Board Paribesh Bhawan A/118, Nilakantha Nagar Unit-8, Bhubaneswar

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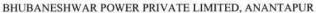
Corporate Identification Number L27100MH1907PLC000260

(Dial 18002666868) (Wear Masks, Stay Orfe)

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# ENVIRONMENTAL STATEMENT FORM-V

(See Rule - 14)

Environmental statement for the financial year ending with 31st March' 2024.

## PART-A

#### General:

i	Name and address of the owner/ occupier of	Mr. S SAHA
	the industry	BHUBANESHWAR POWER PRIVATE LIMITED
	-	Village- Anantapur
		P.O- Dhurusia
		Tehsil- Athagarh
		Dist Cuttack, Odisha
		PIN- 754027
ii	Industry category	Red-A (Thermal Power generation)
iii	Production capacity	135 (2 x 67.5) MW
iv	Year of establishment	Dt. 01.06.2016
v	Date of last Environmental statement submitted	Dt. 03.07.2023

## PART-B

# Water and Raw material consumption

i. Water consumption (m³/day)

Process : 590.44

Cooling : 6703.22

Domestic : 15.70

Name of Products	Process water consump	Process water consumption per unit of products	
	During the previous financial year	During the current financial Year	
Thermal Power	0.1775 (m <sup>3</sup> /MWH)	0.218 (m³/MWH)	

## ii. Raw material consumption

Name of raw	Name of Products	Consumption of raw material per unit of Output	
materials*		During the previous financial year	During the current financial year
Coal	Thermal Power	0.863005 MT/MWH	0.83691 MT/MWH
LDO		0.10443 Ltr/ MWH	0.162955 Ltr/ MWH

<sup>\*</sup> Industry may use codes if disclosing details of raw material would violate contractual obligations, Otherwise all industries have to name the raw materials used.



BHUBANESHWAR POWER PRIVATE LIMITED, ANANTAPUR

## **PART-C**

## Pollution discharged to environment/unit of output

(Parameter as specified in the consent issued)

Pollutants		Concentration of Pollutants	
	discharged (mass/day)	discharged (mass/volume)	prescribed standards with reasons.
(a) Water	Wastewater generated from	om the process including sewage is treated in ETP and STP. Treate	
	wastewater is being re-used for ash conditioning, dust suppression and gardening purposes		
(b) Air	< 50 mg/Nm <sup>3</sup>	< 50 mg/Nm <sup>3</sup>	Ambient air quality & Stack emission monitoring reports are submitted regularly to SPCB / MoEF; monitored values are
			found well within the prescribed
			limits.

# **PART-D**

# **HAZARDOUS WASTES**

(as specified under Hazardous Wastes (Management & Handling Rules, 1989).

Hazardous Wastes	Total Quantity (Kg)		
	During the previous financial year	During the current	
1. From Process	1.10 KL (Used Oil) 0.0 KL (Waste containing Oil)	financial year  2.074 KL (Used Oil)  0.0 KL (Waste containing Oil)	
2. From Pollution Control Facilities			

## PART - E

#### **SOLID WASTES:**

Solid Wastes		Total Quantity (Tons)	
		During the previous	During the current
		financial year	financial year
a. From	process	65205.5 (Bottom Ash)	67954.0 (Bottom Ash)
b. From	Pollution Control Facility	281688.3 (Fly Ash)	271820.0 (Fly Ash)
c. Quant	ity recycled or re-utilized within the unit.		
1.	Ash utilization		
i.	Supply to Brick Plants for Brick making	336872.9	342713.0
ii.	Supply to Cement Plant for Cement making	4461.3	6211.0
iii.	Disposal in ash dykes	<u></u>	
iv.	Quarry reclamation	20497.4	55499.0
V.	Road making	39651.3	53286.0

The scrap (metal pieces, insulation waste, packing plastics, wooden planks etc.) generated from activities are collected, stored in scrap yard and sold to outside vendors.



BHUBANESHWAR POWER PRIVATE LIMITED, ANANTAPUR

#### **PART-F**

Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

### **Hazardous Waste**

Hazardous Waste generated from the process includes used oil (drained from machineries/ equipment) and oil-soaked cotton waste. Authorization obtained from OSPCB for generation, handling collection, storage and disposal of Hazardous Waste vide letter No.- IND-IV- HW -1202/7312 on Dt. 06.05.2023; Valid Date: 31.03.2026. Hazardous waste (Used oil) is stored in hazardous waste storage area & is being auctioned to the SPCB/CPCB authorized re-processors. While oil-soaked cotton waste is incinerated in the Boiler.

#### SOLID WASTE

For the collection of dry fly ash, 3 Nos. of dedicated silos are in place with pneumatic conveying system for further disposal.

#### PART-G

Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.

The following practices are adapted for the pollution control & conservation of natural resources:

- Twin-flue stack with height of 130 meter are provided as per the CPCB guidelines for better dispersion of emissions and keep the concentrations within SPCB/CPCB specified standards.
- High efficient Electrostatic Precipitators (ESPs) of 12 fields in each are provided for the control
  of dust emissions in flue gas.
- Installation of Dust Extraction system along with 6 Nos. of Bag Filters at CHP & 3 nos. of Bag
  Filter at Ash Silos to arrest the fugitive emissions
- Roof sheeting and side cladding in conveyor galleries to control fugitive dust
- Installation of Dust Suppression System in identified areas in CHP
- Installation of 24 nos. of Dry Fog systems nozzles at transfer points of CHP
- Installation of 2 nos. of high efficient mist canons at coal yard and 24 nos. of water sprinklers along the Haul road as an effective dust suppression measure.
- Specific water consumption has been maintained < 3.5 m<sup>3</sup>/MWH & cooling water system is designed at 5.0 COC; and is maintained at 5.9- 6.0 COC.
- Installation of 2 nos. of water monitors in the ash dyke area for controlling the fugitive emissions, if any.
- Effluent Treatment Plant (ETP) and Sewage Treatment Plant (STP) are in place to control water pollution. Treated water is completely reused for ash conditioning, greenbelt development, dust suppression etc.
- Rainwater harvesting is being practiced in the plant premises.
- Good housekeeping is maintained within the plant premises.



BHUBANESHWAR POWER PRIVATE LIMITED, ANANTAPUR

- 13. Total 57,985 nos. Greenbelt has been developed in & around the plant periphery and maintained with >92.0 % survival rate to control the dispersal of dust particles and attenuate the noise generated from plant operation.
- 14. Utilization of 134.71 % of ash for Fly ash Brick making and Cement making in 8<sup>th</sup> year of plant operation; and efforts are being taken for 100% utilization in the subsequent years.
- 15. Installation and put in use of mechanized waste converter & Vermicomposting system.
- 16. Installation of IP Surveillance Camera to visualize the Stack/ Fugitive emission, if any and the video footage is connected to SPCB Server.
- 17. 2 nos. mechanized wheel washing system has been installed for wheel washing of coal / ash trucks exited from the plant to control the fugitive emission in the haul road.
- 18. Installation Electronic digital display board at the Plant gate for displaying the environmental monitoring parameters and EHS awareness propaganda.
- 19. Conducted Energy Audit by engaging BEE Certified Energy Auditor.
- 20. Conducted performance evaluation study of all pollution control equipment.
- 21. Installation of 2 nos. high efficient Mist Canons at coal yard and 27 nos. of water sprinklers along the Haul road as an effective dust suppression measure.
- 22. Engaging vehicle mounted Road Sweeping machine as a part of Housekeeping activity for Control of Fugitive emission along the haul road and internal road network.
- 23. Installed 5KW **Solar** Power system on the roof top of our First Aid Centre and is synchronized with existing GRID system and in operation.
- 24. Established Energy Management System for Pollution Control Equipment and Energy consumption data has been stored in a Centralized platform

#### **PART-H**

Additional measures/investment proposal for environmental protection including abatement of pollution.

Bhubaneshwar Power Private Limited (BPPL) is regularly monitoring of ambient air quality, stack emission, noise level and water quality in and around the plant premises. Monitoring parameters are meeting the permissible limits prescribed by MoEF & CC/ CPCB / SPCB. Further we have installed 4 nos. of CAAQMS, 2 nos. CEMS & 1 no. of EQMS for continuous monitoring of ambient air quality, stack emission and water quality parameters; and are being transmitted to SPCB/CPCB servers.

BHUBANESHWAR POWER PRIVATE LIMITED, ANANTAPUR



#### PART-I

#### MISCELLANEOUS:

Any other particulars in respect of environmental protection and abatement of pollution.

The part – I of any Environmental Statement report is perhaps the best scale to measure various parameters of the plans, target, achievements and BPPL has made sincere efforts to visualize the general environmental scenario and implemented plan for the associated improvements. Some highlights are mentioned as below:

- Four (04) nos. of Continuous Ambient Air Quality Monitoring Stations (CAAQMS), Two (02)
  Continuous Emission Monitoring System (CEMS) in flues of two stacks and 1 EQMS (Effluent
  Quality monitoring Station) are installed; online data from CAAQMS, CEMS & EQMS are being
  transmitted to SPCB/ CPCB servers.
- 2. A laboratory has been established at Plant site for regular sampling and analysis of required operational parameters.

List of pollution control equipment/ facilities available at **BPPL** are as follows:

Sl. No.	Plant activities	Pollution control measures
1	Coal yard	Installation of 2 nos. of high efficient mist canons
2	Coal yard	Provision of Concreted Garland drain
3	Coal handling system	Installation of Dust suppression system at Ground Hopper
4	Coal handling area	Coal settling pit/ Coal run off system
5	Coal bunker/ secondary crusher house	Dust extraction system (3 nos.) with Bag filter
6	Dry Fog System	24 nos. of DFS Nozzles are provided in CHP transfer points
7	Boilers (Dust control)	2 nos. of Electrostatic Precipitator of 12 fields in each
8	Boilers (Emission dispersion)	130 mt high stack
9	DM Plant	Neutralization pit
10	Cooling tower blow down & regeneration waste	Effluent Treatment Plant (ETP)/ Oil water separator / Guard pond
11	Domestic Effluent	Sewage Treatment Plant (STP)
12	Ash storage Silos	Bag Filters and Conditioners in each Silo
13	Fly ash & Bottom ash disposal	Ash Dyke, Road making, Brick & Cement making
14	Vehicle movement along the roads	27 nos. of water sprinklers
15	Coal & Ash transportation on Haul road	02 nos. Mechanized wheel washing system
16	Ash Dyke	02 nos. of high pressure water monitors

#### MISCELLANEOUS

Any other particulars in respect of environmental protection and abatement of pollution.

The programs like World Environment Day, World Ozone Day & Van Mahotsav was celebrated at **BPPL** with great enthusiasm to create awareness among the Employees. Approx. 57985 plantation has been carried out till 31<sup>st</sup> March 2024 over an area of 67 acres. Rest of the greenbelt are being developed progressively.

# ENVIRONMENTAL STATEMENT REPORT FOR 2023-24 BHUBANESHWAR POWER PRIVATE LIMITED, ANANTAPUR



# Celebration of 51st World Environment Day



Celebration of Van Mahotsav-2023



**Celebration of World Ozone Day-2023** 



