

CPP-1200MW/ENVT/A-05/2019/333

26 September 2019

To,
The Member Secretary,
Head Office, Chhattisgarh Environment Conservation Board,
Paryavas Bhawan, North Block, Sector-19,
Atal Nagar, Naya Raipur (C.G.)

Sub: Environment Statement of 1200 MW (4X300 MW) for the financial year 2018-19

Respected Sir,

With reference to the captioned subject we are enclosing herewith the Environment Statement of 1200 MW (4X300 MW) for the financial year 2018-19 in the prescribed Form - V under Section 6 and 25 of the Environment (Protection) Act -1986.

Thanking you,

Yours truly,



Ashutosh Dwivedi
Head – Power Plant

Encl: a/a

Copy to:

1. Regional Officer, CECB, Korba.



FORM- V
(See Rule-14)

ENVIRONMENTAL STATEMENT OF FOR THE FINANCIAL YEAR 2018-19

PART – A

1. Name & address of the owner/
occupier of the industry
operation or process : **Mr. Abhijit Pati**
CEO & WTD (BALCO)
(1200 MW Power Plant)
Bharat Aluminium Company Limited
Korba – 495684 (Chhattisgarh)
2. Industry category : Primary
primary/Secondary (STD
Code)
3. Production Capacity : 1200 MW (4 x 300) Power
4. Year of establishment : 2014
5. Date of last Environment
Statement Submitted : 28th September 2018

PART – B

WATER AND RAW MATERIAL CONSUMPTION

i) Water Consumption in m³/day: -

Process	: 2815.45
Cooling	: 42879.90
Domestic (Plant)	: 415.47

Power generation: 7590 MU

Name of product	WATER CONSUMPTION PER UNIT OF PRODUCT OUTPUT	
	During the financial year 2017-18	During the financial year 2018-19
Power	2.53	2.22

ii) Raw Material Consumption:

Name of raw Materials	Name of Product	CONSUMPTION OF RAW MATERIAL	
		During the financial year 2017-18	During the financial year 2018-19
Coal	Power	4711683 MT	4781234.4 MT
HFO		1084 KL	241.1 KL
LDO		2343 KL	1545.2 KL
Burning Oil		--	--

PART - C

PARAMETER AS PER IS - 2490			
Pollutant	Norms (mg/lit)	Concentration of pollutant in discharge (mg/lit)	Qty of pollutants discharged (kg/day)
WATER		Zero discharge	NIL
AIR			
POLLUTANTS		Qty of pollutants Generated (kg/day)	
SPM		127.53	

PART- D

HAZARDOUS WASTE

(As specified under Hazardous Waste (Management, Handling, and Storage) Rules 1989

Hazardous Waste	TOTAL QUANTITY (TONNES)	
	During the financial year 2017-18	During the financial year 2018-19
Used Oil/Spent Oil	8.57	53.98*
Wastes containing oil	0.825	0.335*
Glasswool & Cerawool (C-4)	7	3*
Empty barrels /Containers /Liners contaminated with Haz. Che./Waste-(33.1)	43 Nos.	529 Nos*

* The data pertains to 1200MW Power Plant only, although the combined HW details as per HW authorization for BALCO, Korba has been submitted to CPCB in Annual HW return 2018-19.

PART- E

SOLID WASTE

Sl. No.	Waste	TOTAL QUANTITY (TONNES)	
		During the financial year 2017-18	During the financial year 2018-19
1.	Fly ash	1566796	1406305
2.	Bottom Ash	391699	351576

PART- F

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

DISPOSAL PRACTICES ADOPTED

- High-density slurry disposal system has been adopted.
- Fly ash from the ESP's is collected in silos by dry ash extraction system from where it is transported to cement plants and brick manufacturing plants. Also ash is utilized in filling/reclamation of low lying areas and backfilling of Chotia Captive Coal Mines.
- Waste/Used oil is stored in barrels in secondary containment on concrete floors under covered sheds and sold to recyclers having MoEF authorization for handling/transportation of Hazardous Waste.
- Used Lead-Acid battery is stored in secondary containments on Concrete floors under covered sheds and are sold in as it is condition (no processing) to registered recyclers having MoEF authorization for handling / transportation of Hazardous Waste.

PART- G

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

The 1200 MW power plant has been designed with the latest technology – high-Concentration Slurry Disposal (HCSD) system. The HCSD system is a much cleaner technology due to the following reasons- less disposal area, less water & power consumption, dense compact deposit with rapid drying, compact disposal site.

The plant has been equipped with hybrid ESP, electrostatic precipitators (ESPs) followed by bag filters. The chimneys are 275m high which ensures adequate dispersion of the air pollutants.

Further, we have made the following expenditure in order to control pollution:

<u>Expenditure incurred for various Environmental measures 2018-19</u>		
Sl. No.	Project Description	2018-19 (in INR crores)
1	Housekeeping	₹ 2.84
2	Ash handling	₹ 9.65
3	Plantation	₹ 0.08
4	ESP maintenance	₹ 0.37
	Total	₹ 12.95

PART- H

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

Hybrid ESP consisting of Electrostatic precipitator followed by bag filters are installed in all ESPs of power plant to keep emission level below 50 mg/Nm³.

PART – I

Any other particulars for improving the quality of the environment

Tree plantation is carried out every year in and around the Aluminium and Power Complex as well as in the Balco Township. During 2018-19, we have carried out a plantation drive in which 5000 saplings were planted in and around BALCO.