



To,
The Member Secretary,
Jharkhand State Pollution Control Board,
T.A. Bhawan,
H.E.C. Campus, Dhurwa,
Ranchi-834004
Jharkhand

Ref. No. - JMB/ENV/ESSA/05/ 893 /2020

September 28th, 2020

Sub: Annual Environment Statement in Form V for the FY-20.

Dear Sir,

We are enclosing herewith Annual Environment Statement in Form-V for the FY-20 in respect of **Bhelatand Coal Washery** of M/s Tata Steel Limited, Jharia Division for your kind perusal.

Kindly acknowledge the receipt of the same.

Thanking you,

Yours faithfully,
For Tata Steel Limited

Head (Planning)

Received
Bhelatand
28/9/2020
झारखण्ड राज्य प्रदूषण नियंत्रण पर्वद
क्षेत्रीय कार्यालय
धनबाद

CC: Regional Officer, Jharkhand State Pollution Control Board, HIG.-1 Sardar Patel Nagar,
Housing Colony, Hirapur , Dhanbad (Jharkhand).

FORM – V (See rule – 14)
Environmental Statement for the financial year ending the 31st March -2020
Bhelatand Coal Washery

PART – A

1.Name and address of the owner/ occupier of the : industry/ operation or process	Bhelatand Coal Washery
Chief:	Mr. Gustad Framroze Taraporewalla Head Bhelatand Coal Washery Tata Steel Ltd., P.O.- Bhelatand Dist.- Dhanbad, Jharkhand-828 103
Nominated Owner :	Mr. T.V.Narendran CEO&MD, Tata Steel Ltd Jamshedpur, Dist- East Singhbhum Jharkhand – 831 001
2.Industry category: Primary (STC Code) Secondary (STC Code)	--
3.Production Capacity – Units	0.54 MTPA Clean coal (as per CTO) 1.50 MTPA Raw coal feed (as per EC)
4.Year of Establishment	1995
5.Date of the last environmental statement submitted	23 rd September, 2019 (Vide Letter No.JMB/ENV/ESSA/05/521/2019)

PART – B

Water and Raw Material Consumption

1. Water Consumption M³ / day.

	Water consumption in 2018-2019	Water consumption in 2019-2020
Process	432.79 M ³ / day	241.47 M ³ / day
Cooling	Not Applicable	Not Applicable
Domestic	1 M ³ / day	1 M ³ / day

**The domestic water consumption in colonies has been considered in Bhelatand A. Colliery.*

Sl. No	Name of the products	Process water consumption per unit of product output.	
		During the previous financial year 2018-2019	During the current financial year 2019-2020
1.	Clean Coal	0.28 M ³ /Tonnes	0.19 M ³ /Tonnes

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2. Raw Material Consumption

Sl. No	Name of the Raw Material	Name of the product	Raw Materials consumption per unit production output.	
			During the previous financial year 2018-2019	During the current financial year 2019-2020
1.	Raw Coal	Clean Coal	1.60 trc/tcc	1.636 trc/tcc
2.	Magnetite		0.98 kg/ton	0.94 kg/ton

*Industries may use codes if disclosing details of raw materials would violate contractual obligation, otherwise all industries have to name the raw materials used.

PART – C
Pollution discharged to environment / unit of output.

(Parameter as prescribed in the consent issued)

Sl. No	Pollution	Quantity of pollutants discharged (mass/ day)		Concentration of pollutants in discharges (Mass/Volume)		Percentage of variation from prescribed standard with reason.	
A.	AIR	PM ₁₀ Level : 24 Hourly Limit- 100µg/m ³	PM _{2.5} Level : 24 Hourly Limit- 60µg/m ³	SO ₂ Level: 24 Hourly Limit- 80µg/m ³	NO ₂ Level: 24 Hourly Limit- 80µg/m ³	Ambient air quality is being measured and all values are within limits as per NAAQS, 2009.	
		83.23	42.10	10.19	10.19		
B.	WATER	Zero water discharge (Closed water circuit system). The analysis of water in the final settling tank is as follows:					All values are within limits.
		Parameter	Results	Measurement	Limit		
		pH	8.1	pH	5.5-9.0		
		Total Suspended Solid	19.5	mg/ltr.	100		
		Total Dissolved Solid	997.0	mg/ltr.	2100		
		Biological Oxygen Demand	3.8	mg/ltr.	30		
		Chemical Oxygen Demand	33.3	mg/ltr.	250		
Oil & Grease	2.7	mg/ltr.	10				

The washery does not have any single point source of air pollution. Hence, quantitative estimation of air pollutants discharged in Kg/day cannot be ascertained.

FORM – V (See rule – 14)

**Environmental Statement for the financial year ending the 31st March -2020
Bhelatand Coal Washery**

PART – D

Hazardous Wastes

(as specified under The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016)

Sl No	Hazardous Waste	Total Quantity (Kg.)	
		During the previous financial year 2018-2019	During the current financial year 2019-2020
1.	From process Used Oil Lead Acid Battery	2000 Litres 55 Nos	2819 Litres 0 Nos.
2.	From pollution control facility	-	-

PART – E

Solid Wastes

Sl No	Solid Wastes	Total Quantity (Kg.)	
		During the previous financial year 2018-2019	During the current financial year 2019-2020
1.	From process a. Tailings b. Scrap materials	151628 Tonnes 131.65 Tonnes	128408 Tonnes 120.47 Tonnes
2.	(i) Quantity recycled or reutilized within the unit/sold/disposed	All tailings sold to institutionalized customers and scrap sold to dealers	All tailings sold to institutionalized customers and scrap sold to dealers

PART – F

Please specify the characterization (in term of composition and quantum) of hazardous as well as solid wastes and indicate disposal practices adopted for both these categories of wastes.

Category of Waste	Characteristics	Quantity	Disposal Practice
Solid Waste 1. Tailings	Coal of -0.5mm size (Solid)	128408 Tonnes	All tailings sold to institutionalized customers
2. Scrap materials	Solid	120.47 Tonnes	Steel scrap is sold off to vendors.
Hazardous Waste 1. Used Oil	Used Oil (Liquid)	2819 Litres	Disposed off to authorized recycler.
2. Used Battery	Lead Acid Battery(Solid)	0	Sold off to Authorized recycler

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Bhelatand Coal Washery

PART – G

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

Bhelatand coal washery of TATA Steel Ltd. is an ISO 9001:2015, 14001:2015 and OHSAS 18001 unit, entire coal washing is done by eco-friendly way by using standard practice. Dry-fog system has been already installed to suppress the dust generated at CHP and transfer points of belt conveyor systems and is operated at all times to check fugitive emissions. Adequate fixed-type water sprinklers are also installed at the internal roads of the washery.

S.No.	Environment Management Activity	Expenditure in Lakhs
1	Tailings Management System including recycling	37
2	Dust suppression system (Dry fog system)	9.7
3	Dust extraction system	17.0
4	Housekeeping measures includes removing spillage, improvement of roads	40
5	Mechanical dewatering system	5.5
6	Fixing of Hosch Scraper and tru track idler for spillage control of conveyor belt	8.0
7	Water spraying on roads for dust control	5.5
8	Horticultural activities including green belt development and regular lawn and garden maintenance	19.23
9	Plantation of saplings and maintenance	5.30
10	Replacement of reciprocating type air compressor by screw compressor for noise reduction	0
11	Any additional expenditure incurred such as constructing the rainwater harvesting structure	0
	Total Cost incurred	147.23

Total annual expenditure incurred towards environmental protection is **Rs. 147.23 lakhs**.

Annual clean coal production of the plant during the year is **4.46 lakh tonnes**.

So the impact of the pollution abatement measures and environment protection shall be **33.02 Rs/ ton** of clean coal production.

PART – H

Additional measures/ investment proposals for environmental protection including abatement of pollution, prevention of pollution

Efforts are being made to increase the utilization of the mine out water from Bhelatand colliery for washery operation. Various programs are arranged such as World Environmental day, Annual Flower Show, Green School Project, Tata Volunteering Week etc for public awareness. Also, various initiatives for biodiversity enhancement in the region have been taken in FY20 such as Bird Niche Nesting, Development of Butterfly garden, Medicinal Garden, Nursery development of native species, etc. Tree

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Bhelatand Coal Washery

plantation will be continued in the leasehold area. Water pumped out of the mine will continue to be used in washery other than use in stowing.

PART – I

Any other particulars for improving the quality of environment

1. We are providing safe drinking water from our water treatment plant & MADA to our employees.
2. We are regularly sprinkling water in an around the units, to suppress dust.
3. We provide dust mask to our employees to prevent exposure to dust.
4. Our welfare department arranges to clean the domestic garbages from our colonies to provide better environment.
5. Regular monitoring of Air Quality & mine water analysis by our separate environment management cell.
6. We have already done the tree plantation job and this is a continuous process in company leasehold areas.
7. Regular thrust on Environment awareness conducting training classes at P.T.I., Jamadoba.
8. We are an IMS certified unit (ISO 9001:2015 & 14001:2015 and ISO 45001 certified).

L. F. Tarapnawalla

Name of Unit – Bhelatand Coal Washery

Head Bhelatand Coal Washery
TATA STEEL LIMITED