



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/ 736 /2023

September 29th, 2023

Sub: Annual Environment Statement in Form V for the FY-23.


Dear Sir,

We are enclosing herewith Combined Annual Environment Statement in Form-V for the FY-23 in respect of **Bhelatand A. Colliery and Bhelatand 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)

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

FORM – V (See rule – 14)

**Environmental Statement for the financial year ending the 31st March -2023
Bhelatand A. Colliery & Integrated Washery**

PART – A

1.Name and address of the owner/ occupier of the : industry/ operation or process	Bhelatand A. Colliery & Integrated Washery
Manager :	Mr. Mayank Shekhar Chief (Sijua Group) Tata Steel Ltd., P.O.- Bhelatand Dist.- Dhanbad, Jharkhand-828103
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	Colliery: 0.41 MTPA Raw Coal Washery: 1.5 MTPA Raw coal feed
4.Year of Establishment	Colliery: 1910 Washery: 1995
5.Date of the last environmental statement submitted	Colliery & Washery 28 th September 2022 (Vide Letter No. JMB/ENV/ESSA/05/723/2022)

PART – B

Water and Raw Material Consumption

1. Water Consumption M³ / day.

Bhelatand A. Colliery		
	Water consumption in 2021-2022	Water consumption in 2022-2023
Process	Not Applicable	Not Applicable
Industrial	2.64 M ³ /day	5.79 M ³ /day
Domestic	1060.91 M ³ /day	844.18 M ³ /day
Bhelatand Coal Preparation Plant		
Process	270.01 M ³ / day	425.18 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.*

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Sl. No	Name of the products	Process water consumption per unit of product output.	
		During the previous financial year 2021-2022	During the current financial year 2022-2023
Bhelatand A. Colliery			
1.	Raw Coal	Not Applicable	Not Applicable
Bhelatand Coal Preparation Plant			
1.	Clean Coal	0.17 M3/Ton	0.23 M3/Ton

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 2021-2022	During the current financial year 2022-2023
Bhelatand A. Colliery				
1.	Explosives	Raw Coal	0.35 Kg/Ton	0.3 Kg/Ton
2.	Detonators		0.67 Nos/Ton	0.59 Nos/Ton
Bhelatand Coal Preparation Plant				
1.	Raw Coal	Clean Coal	1.57 trc/tcc	1.65 trc/tcc
2.	Magnetite		0.92 kg/ton	0.80 kg/ton

*trc stands for Total Raw Coal & tcc stands for total clean coal

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)				Percentage of variation from prescribed standard with reason.
		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	
A.	AIR	86.80	47.93	18.35	26.51	Ambient air quality is being measured and all values are within limits as per NAAQS, 2009. The values indicated here are the average value of quarterly reports of FY23 conducted by 3 rd party NABL accredited laboratory.
B.	WATER	Parameter	Results	Results	UOM	Limit

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		(Colliery)	(Washery)			The quality of mine water is being measured in-house on monthly basis and quarterly through NABL accredited 3 rd party laboratory. Average value from the quarterly report for FY23 is provided here. Washery is Zero water discharge (Closed water circuit system) unit. The analysis of water in the final settling tank is done monthly.
	pH	7.7	7.7	pH	5.5-9.0	
	Total Suspended Solid	30.6	30.6	mg/ltr.	100	
	Total Dissolved Solid	773.2	773.2	mg/ltr.	2100	
	Biological Oxygen Demand	1.6	1.6	mg/ltr.	30	
	Chemical Oxygen Demand	52.8	52.8	mg/ltr.	250	
	Oil & Grease	0.8	0.8	mg/ltr.	10	

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

PART – D

Hazardous Wastes

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

SI No	Hazardous Waste	Total Quantity (Kg.)	
		During the previous financial year 2021-2022	During the current financial year 2022-2023
1.	From process Used Oil Used Batteries	Colliery: 3987.3 Ltrs Washery: 3516.4 Ltrs -	Colliery: 723.81 Kgs Washery: 2496.0 Kgs Colliery: 700 Nos
2.	From pollution control facility	-	

PART – E

Solid Wastes

SI No	Solid Wastes	Total Quantity (Kg.)	
		During the previous financial year 2021-2022	During the current financial year 2022-2023
1.	Steel Scrap and other materials (conveyor belt, cable pieces waste) collected from U/G mines.	468.08 Ton	370.84 Ton
2.	From process a. Tailing	146896 Ton	118987 Ton

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3.	(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
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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. Steel Scrap and other materials	Solid	370.84 Ton	Steel scrap and other solid wastes are sent to central scrap yard for segregation and disposal to vendors.
2. Tailings	Coal of -0.5mm size (Solid)	118987 Ton	All tailings sold to institutionalized customers
Hazardous Waste 1. Used Oil	Used Oil (Liquid)	3219.81 Kgs (Ltrs)	Generally, hazardous wastes are disposed off to registered recyclers according to applicable Hazardous Wastes Management Rules.
2. Used Batteries	Used Cap Lamp Battery	700 Nos	

PART – G

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

Bhelatand A. Colliery:

S. No.	Environment Management Activity	Expenditure (Lakh)
1	Stowing activities i.e filling of U/G voids for surface protection and prevention of subsidence	131.00
2	Fire Control measures (Fire/Isolation Stopping and Nitrogen plant)	5.00
3	Goaf Filling activities, drain repairing and maintenance, settling tank maintenance jobs	25.00
4	Water spraying costs in underground and surface	1.00
4	Making potable water in Water Treatment Plant & Supply to colonies	65.29
5	Horticultural activities including lawn and garden maintenance	5.53
6	Plantation of saplings and maintenance	3.23
7	Environmental Monitoring and scientific studies	10.45
8	Operation and maintenance of ETP/STP	5.31
	Total Cost incurred	251.81

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**Environmental Statement for the financial year ending the 31st March -2023
Bhelatand A. Colliery & Integrated Washery**

Total annual expenditure incurred towards environmental protection is Rs. **251.81 lakhs**

Annual raw coal production of the plant during the year is **2.32 lakh tonnes**.

So, the impact of the pollution abatement measures, and environment protection shall be **Rs. 108.24 per ton** of raw coal production.

Bhelatand Coal Preparation Plant:

S.No.	Environment Management Activity	Expenditure (Lakh)
1	Tailings Management System including recycling	40.00
2	Dust suppression system (Dry fog system)	12.30
3	Operation and maintenance of Dust extraction system	5.00
4	Housekeeping measures includes removing spillage, improvement of roads, mechanical sweeper etc	49.33
5	Mechanical dewatering system	5.00
6	Fixing of Hosch Scraper and tru track idler for spillage control of conveyor belt	12.50
7	Water sprinkling activities	10.00
8	Any additional measures for Environment Management	2.00
9	Horticultural activities including green belt development and regular lawn and garden maintenance	5.53
10	Plantation of saplings and maintenance	2.18
11	Operation and maintenance of ETP/STP	3.23
12	Environmental Monitoring and scientific studies	5.31
	Total Cost incurred	153.91

Total annual expenditure incurred towards environmental protection is **Rs. 153.91 lakhs**.

Annual clean coal production of the plant during the year is 6.72 lakh tonnes.

So, the impact of the pollution abatement measures, and environment protection shall be 22.90 Rs/ ton of clean coal production.

PART – H

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

Jharia Division of TATA Steel Ltd. is committed to improve safety and environment by strictly practicing Environmental Management System of company.

Various programs are arranged such as World Environmental day, Sustainability Month, 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 such as Bird Niche Nesting, Development of Butterfly garden, Medicinal Garden, Nursery development of native species, etc. Tree 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.

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A Sewage Treatment Plant has been installed of 200KLD & 60KLD capacity for treatment of domestic sewage. Regular operation and maintenance is being done to ensure optimum performance of plant.

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 in underground mines.
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 45001:2018 certified) along with SA: 8000 (Social Accountability)

Name of Unit – Bhelatand A. Colliery & Integrated Washery


Chief Sijua Group
Tata Steel Limited
Chief Sijua Group
Tata Steel Ltd.