



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/ 734 /2023

September 29th, 2023

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

Dear Sir,

We are enclosing herewith Annual Environment Statement in Form-V for the FY-23 in respect of **Jamadoba 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)

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
Jamadoba Coal Washery

PART – A

1.Name and address of the owner/ occupier of the : industry/ operation or process	Jamadoba Coal Washery
Head :	Mr. Rajeev Kumar Ranjan Head (Jamadoba Coal Washery) Tata Steel Ltd., P.O.- Jamadoba Dist.- Dhanbad, Jharkhand-828112
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	2.0 MTPA Clean coal
4.Year of Establishment	1952
5.Date of the last environmental statement submitted	28 th September 2022 (Vide Letter No.JMB/ENV/ESSA/05/719/2022)

PART – B

Water and Raw Material Consumption

1. Water Consumption M³ / day.

	Water consumption in 2021-2022	Water consumption in 2022-2023
Process	473.12 M ³ / day	561.26 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 Jamadoba Colliery.*

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
1.	Clean Coal	0.28 M ³ /Ton	0.28 M ³ /Ton

FORM – V (See rule – 14)

**Environmental Statement for the financial year ending the 31st March -2023
Jamadoba Coal Washery**

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
1.	Raw Coal	Clean Coal	1.71 trc/tcc	1.86 trc/tcc
2.	Magnetite		2.25 kg/ton	1.38 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. The values indicated here are the average value of quarterly reports of FY23 conducted by 3rd party NABL accredited laboratory.	
		80.02	43.91	17.90	25.73		
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. Average value from the quarterly report for FY23 is provided here.
		Parameter	Results	Measure ment	Limit		
		pH	7.6	pH	5.5-9.0		
		Total Suspended Solid	27.7	mg/ltr.	100		
		Total Dissolved Solid	686.8	mg/ltr.	2100		
		Biological Oxygen Demand	2.1	mg/ltr.	30		
		Chemical Oxygen Demand	46.5	mg/ltr.	250		
		Oil & Grease	0.7	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 -2023
Jamadoba 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	
		During the previous financial year 2020-2021	During the current financial year 2022-2023
1.	From process Used Oil Lead Acid Battery	627.7 Litres Nil	8489.52 Kgs 2868 Nos
2.	From pollution control facility	-	-

PART – E

Solid Wastes

Sl No	Solid Wastes	Total Quantity	
		During the previous financial year 2020-2021	During the current financial year 2022-2023
1.	From process a. Tailings b. Scrap materials	42682 Ton 102.24 Ton	39956.3 Ton 87.72 Ton
2.	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	Tailing	39956.3 Ton	All tailings sold to institutionalized customers. Steel scrap is sold off to vendors.
2. Steel Scrap and other materials	Solid	87.72 Ton	
Hazardous Waste 1. Used Oil	Used Oil (Liquid)	8489.52 Kgs	Disposed off to authorized recycler.
2. Used Battery	Used Battery (Solid)	2868 Nos	

FORM – V (See rule – 14)
Environmental Statement for the financial year ending the 31st March -2023
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PART – G

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

Jamadoba coal washery of TATA Steel Ltd. is an ISO 9001:2015, 14001:2015 and ISO 45001 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 always operated 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	10.00
2	Dust suppression system (Dry fog system)	27.00
3	Operation and maintenance of Dust extraction system	4.09
4	Housekeeping measures includes removing spillage, improvement of roads, mechanical sweeper etc	84.10
5	Mechanical dewatering system	1018.49
6	Water sprinkling activities	30.00
7	Horticultural activities including green belt development and regular lawn and garden maintenance	19.48
8	Plantation of saplings and maintenance	1.84
9	Operation and maintenance of ETP/STP	4.64
10	Environmental Monitoring and scientific studies	63.71
	Total Cost incurred	1263.35

Total annual expenditure incurred towards environmental protection is **Rs. 1263.35 lakhs.**

Annual clean coal production of the plant during the year is **7.29 lakh ton.**

So, the impact of the pollution abatement measures, and environment protection shall be **INR 173.30 Rs/ ton of clean coal production.**

PART – H

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

Fixed type water spraying system inside washery complex is being operated. Further extend to branch road has been done. Dust extraction system is being commissioned in washery expansion project to control the air pollution. 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 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. One ETP of 10 KLD has been installed for canteen wastewater treatment. Dust extraction system has been installed to suppress dust at source of

FORM – V (See rule – 14)

**Environmental Statement for the financial year ending the 31st March -2023
Jamadoba Coal Washery**

generation. Mechanical sweeper, mist canon, mechanical tailing dewatering plants are major pollution control methods.

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 garbage's 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 – Jamadoba Coal Washery


**Head, Jamadoba Coal Washery
TATA STEEL LIMITED**

**Head
JAMADOBA WASHERY**