



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/ 736 /2021

September 28th, 2021

Sub: Annual Environment Statement in Form V for the FY-21.

Dear Sir,

We are enclosing herewith Annual Environment Statement in Form-V for the FY-21 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, 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 -2021

Jamadoba Coal Washery

PART – A

1.Name and address of the owner/ occupier of the : industry/ operation or process	Jamadoba Coal Washery
Head :	Mr. Amit 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 2020 (Vide Letter No.JMB/ENV/ESSA/05/896/2020)

PART – B

Water and Raw Material Consumption

1. Water Consumption M³ / day.

	Water consumption in 2019-2020	Water consumption in 2020-2021
Process	512.40 M ³ / day	273.56 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 2019-2020	During the current financial year 2020-2021
1.	Clean Coal	0.41 M ³ /Ton	0.44 M ³ /Ton

FORM – V (See rule – 14)

**Environmental Statement for the financial year ending the 31st March -2021
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 2019-2020	During the current financial year 2020-2021
1.	Raw Coal	Clean Coal	1.94 trc/tcc	2.05 trc/tcc
2.	Magnetite		1.13 kg/ton	3.18 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.
		85.55	43.50	12.3	13.4	
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	23.5	mg/ltr.	100	
		Total Dissolved Solid	864.5	mg/ltr.	2100	
		Biological Oxygen Demand	4.5	mg/ltr.	30	
		Chemical Oxygen Demand	33.3	mg/ltr.	250	
		Oil & Grease	3.4	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 -2021

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 2019-2020	During the current financial year 2020-2021
1.	From process Used Oil Lead Acid Battery	3617 Litres Nil	627.7 Litres Nil
2.	From pollution control facility	-	-

PART – E

Solid Wastes

Sl No	Solid Wastes	Total Quantity	
		During the previous financial year 2019-2020	During the current financial year 2020-2021
1.	From process a. Tailings b. Scrap materials	142002 Ton 103.38 Ton	65780.67 Ton 123.93 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	Coal of -0.5mm size (Solid)	65780.67 Ton	All tailings sold to institutionalized customers
2. Steel Scrap and other materials	Solid	123.93 Ton	Steel scrap is sold off to vendors.
Hazardous Waste 1. Used Oil	Used Oil (Liquid)	627.7 L	Disposed off to authorized recycler.
2. Used Battery	Lead Acid Battery(Solid)	Nil	

FORM – V (See rule – 14)
Environmental Statement for the financial year ending the 31st March -2021
Jamadoba Coal Washery

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	39.80
2	Dust suppression system (Dry fog system)	8.00
3	Dust extraction system	4.20
4	Housekeeping measures includes removing spillage, improvement of roads	56.87
5	Mechanical dewatering system	573.10
6	Fixing of Hosch Scraper and tru track idler for spillage control of conveyor belt	8.00
7	Water spraying on roads for dust control	4.85
8	Replacement of reciprocating type air compressor by screw compressor for noise reduction	NA
9	Any additional expenditure incurred such as constructing the rainwater harvesting structure	NA
10	Horticultural activities including green belt development and regular lawn and garden maintenance	18.94
11	Plantation of saplings and maintenance	3.71
	Total Cost incurred	717.47

Total annual expenditure incurred towards environmental protection is **Rs. 717.47 lakhs.**

Annual clean coal production of the plant during the year is **2.28 lakh ton.**

So the impact of the pollution abatement measures and environment protection shall be **315.34 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

FORM – V (See rule – 14)

Environmental Statement for the financial year ending the 31st March -2021

Jamadoba Coal Washery

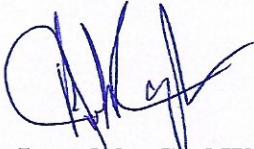
initiatives for biodiversity enhancement in the region have been taken such as Bird Niche Nesting, Development of Butterfly garden, Medicinal Garden, Nursery development of native species, etc. Tree plantation will be continued in the leasehold area. Water pumped out of the mine will continue to be used in washery other than use in stowing. One ETP has been commissioned at cost of Rs.15 lakh for canteen waste water treatment. Also, for sewage water treatment of the colony, one STP of capacity 50 KLD has been commissioned at the cost of Rs.65 lakh.

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 45001:2018 certified).

Name of Unit – Jamadoba Coal Washery


Head, Jamadoba Coal Washery
TATA STEEL LIMITED
HEAD
JAMADOBA WASHERY