



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/ 730 /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 Colliery** 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 Colliery

PART – A

1.Name and address of the owner/ occupier of the : industry/ operation or process	Jamadoba Colliery
Manager :	Mr. Manoj Kumar Head (Jamadoba Colliery) 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	0.315 MTPA – Raw coal
4.Year of Establishment	1918
5.Date of the last environmental statement submitted	28 th September 2020 (Vide Letter No.JMB/ENV/ESSA/05/895/2020)

PART – B

Water and Raw Material Consumption

- **Water Consumption M³ / day.**

	Water consumption in 2019-2020	Water consumption in 2020-2021
Process	Not Applicable	Not Applicable
Industrial	(This is included in the Environment Statement of Jamadoba Washery)	
Domestic	3967.93 M ³ /day	3837.86 M ³ /day
Other	Not Applicable	Not Applicable

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.	Raw Coal	Not Applicable	Not Applicable

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

Jamadoba Colliery

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.	Explosives	Raw Coal	0.50 Kg/Tonne	0.63 Kg/Tonne
2.	Detonators		1.01 Nos/Tonne	1.27 Nos/Tonne

*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	48.07	13.01	13.16	
B.	WATER	Parameter	Results	Unit of measure	Limit	The quality of mine water is being measured on monthly basis and all values are within the limits. Average value for FY21 is provided here.
		pH	7.7	pH	5.5-9.0	
		Total Suspended Solid	10.7	mg/ltr.	100	
		Total Dissolved Solid	662.1	mg/ltr.	2100	
		Biological Oxygen Demand	3.3	mg/ltr.	30	
		Chemical Oxygen Demand	16.0	mg/ltr.	250	
		Oil & Grease	0.7	mg/ltr.	10	

The colliery 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 Colliery

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 2019-2020	During the current financial year 2020-2021
1.	From process Used Oil Used cap lamp Battery	3017 Litres 52 Nos	1046.2 Litres 20 Nos
2.	From pollution control facility	-	-

PART – E**Solid Wastes**

Sl No	Solid Wastes	Total Quantity (Kg.)	
		During the previous financial year 2019-2020	During the current financial year 2020-2021
1.	Steel Scrap and other materials (conveyor belt, cable pieces waste) collected from U/G mines.	182.79 Tonnes	315.00 Tonnes
2.	Quantity recycled or reutilized within the unit/ sold/ disposed	All scraps sold to vendors	All scraps sold to vendors

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 • Steel Scrap and other materials	Solid	315.00 Tonnes	Steel scrap and other solid wastes, which is mentioned here sent to central scrap yard for segregation and disposal to vendors.
Hazardous Waste • Used Oil • Used Cap Lamp Battery	Used Oil (Liquid) Battery(Solid)	1046.2 Litres 20 Nos	Hazardous wastes are disposed off to registered recyclers according to applicable Hazardous Wastes Management Rules.

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

PART – G

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

S. No.	Environment Management Activity	Expenditure in Lakhs
1	Stowing activities i.e filling of U/G voids for surface protection and prevention of subsidence	1422
2	Fire Control measures (Fire/Isolation Stopping and Nitrogen plant)	79
3	Goaf Filling activities, drain repairing and maintenance, settling tank maintenance jobs	12
4	Water spraying costs in underground and surface	95
5	Making potable water in Water Treatment Plant & Supply to colonies	213.65
6	Horticultural activities including green belt development and regular lawn and garden maintenance	18.94
7	Plantation of saplings and maintenance	3.71
	Total Cost incurred	1844.30

Total annual expenditure incurred towards environmental protection is Rs. **1844.30** lakh.

Annual raw coal production of the plant during the year is approx **1.81 lakh tonnes**.

So the impact of the pollution abatement measures and environment protection shall be **Rs. 1021 per ton** of raw 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, Annual Flower Show 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. Two Effluent Treatment Plants based on MBBR technology have been commissioned with capacity of 10 KLD each for canteen waste water and workshop effluents treatment.

FORM – V (See rule – 14)

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

PART – I

Any other particulars for improving the quality of environment

- We are providing safe drinking water from our water treatment plant & MADA to our employees.
- We are regularly sprinkling water in an around the units, to suppress dust.
- We provide dust mask to our employees to prevent exposure to dust in underground mines.
- Our welfare department arranges to clean the domestic garbages from our colonies to provide better environment.
- Regular monitoring of Air Quality & mine water analysis by our separate environment management cell.
- We have already done the tree plantation job and this is a continuous process in company leasehold areas.
- Regular thrust on Environment awareness conducting training classes at P.T.I., Jamadoba.
- We are an IMS certified unit (ISO 9001:2015, 14001:2015 and 45001:2018 certified).

Name of Unit – Jamadoba Colliery

H. Anil Kumar

**Head, Jamadoba Colliery
TATA STEEL LIMITED**

**HEAD
JAMADOBA COLLIERY**