



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

Ref. No. - JMB/ENV/ESSA/05/ 526 /2019

September 23, 2019

Sub: Annual Environment Statement in Form V for the FY-19.

Dear Sir,

We are enclosing herewith Annual Environment Statement in Form-V for the FY-19 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,

Manager (Environment)

Received
27/9/19
महोदय राज्य प्रदूषण नियंत्रण बोर्ड
भारत खनन कर्पोरेशन
धनबाद

Copy to: Member Secretary, Jharkhand State Pollution Control Board, T.A. Bhawan, H.E. C.
Campus, Dhurwa, Ranchi, 834004, Jharkhand.

Copy to: Head, Jamadoba Coal Washery

TATA STEEL LIMITED

Jharia Collieries Jamadoba 828 112 Dhanbad India
Tel 91 326 2320263/2320265/2320267 Fax 91 326 2320268
Regd. Office Bombay House 24 Homi Mody Street Mumbai 400 001
Tel 91 22 66658282 Fax 91 22 66657724
Corporate Identity Number L27100MH1907PLC000260 Website www.tatasteel.com

FORM – V (See rule – 14)
Environmental Statement for the financial year ending the 31st March -2019
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	24 th September' 2018 (Vide Letter No.JMB/ENV/ESSA/05/824/2018)

PART – B

Water and Raw Material Consumption

1. Water Consumption M³ / day.

	Water consumption in 2017-2018	Water consumption in 2018-2019
Process	1182.2 M ³ / day	586.94 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 2017-2018	During the current financial year 2018-2019
1.	Clean Coal	0.85 M ³ /Tonnes	0.38 M ³ /Tonnes

FORM – V (See rule – 14)**Environmental Statement for the financial year ending the 31st March -2019****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 2017-2018	During the current financial year 2018-2019
1.	Raw Coal	Clean Coal	1.99 tonne/tonne	1.78 tonne/tonne
2.	Magnetite		0.85 kg/tonne	0.55 kg/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.	
		81.48	46.91	9.07	9.73		
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.
		Parameter	Results	Measurement	Limit		
		pH	8.0	pH	5.5-9.0		
		Total Suspended Solid	31.1	mg/ltr.	100		
		Total Dissolved Solid	808.2	mg/ltr.	2100		
		Biological Oxygen Demand	6.4	mg/ltr.	30		
		Chemical Oxygen Demand	52.0	mg/ltr.	250		
Oil & Grease	3.2	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 -2019
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 2017-2018	During the current financial year 2018-2019
1.	From process Used Oil Lead Acid Battery	4575.9 Litres 6 Nos	400 Litres Nil
2.	From pollution control facility	-	-

PART – E
Solid Wastes

Sl No	Solid Wastes	Total Quantity	
		During the previous financial year 2017-2018	During the current financial year 2018-2019
1.	From process a. Tailings b. Scrap materials	183087 Tonnes 139.82 Tonnes	177857Tonnes 80.59 Tonnes
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)	177857 Tonnes	All tailings sold to institutionalized customers
2. Steel Scrap and other materials	Solid	80.59 Tonnes	Steel scrap is sold off to vendors.
Hazardous Waste			
1. Used Oil	Used Oil (Liquid)	400 Litres	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 -2019

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 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	11.33
2	Dust suppression system (Dry fog system)	4.45
3	Dust extraction system	4.2
4	Housekeeping measures includes removing spillage, improvement of roads	73.75
5	Mechanical dewatering system	27
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	7.04
8	Horticultural activities including green belt development and regular lawn and garden maintenance	7.46
9	Plantation of saplings and maintenance	3.32
10	Replacement of reciprocating type air compressor by screw compressor for noise reduction	NA
11	Any additional expenditure incurred such as constructing the rainwater harvesting structure	NA
	Total Cost incurred	146.55

Total annual expenditure incurred towards environmental protection is **Rs. 146.55 lakhs**.

Annual clean coal production of the plant during the year is **6.04 lakh tonnes**.

So the impact of the pollution abatement measures and environment protection shall be **24.27 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 for public awareness. Also, various initiatives for biodiversity enhancement in the

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Environmental Statement for the financial year ending the 31st March -2019
Jamadoba Coal Washery

region have been taken in FY19 such as Artificial Niche Nesting, Development of Butterfly garden, Medicinal Garden, Nursery development of native species, Hibiscus park 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 the purpose of 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 OHSAS 18001 certified).

Name of Unit – Jamadoba Coal Washery


Head, Jamadoba Coal Washery
TATA STEEL LIMITED

Head
JAMADOKA WASHERY