

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

Ref. No.- S&E/ENV/ESSA/05/ 834 /2015

September 28th, 2015

Dear Sir,

With reference to the above, we are enclosing here with form (V) (See rule-14) the Environmental Statement for JAMADOBA COLLIERY.

Kindly acknowledge the receipt of the same.

Thanking you,

Yours faithfully,

Manager (Environment)

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

Campus, Dhurwa, Ranchi, 834004, Jharkhand.

Copy to: Head (Jamadoba Colliery)

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 66656282 Fax 91 22 66657724 Corporate Identity Number L27100MH1907PLC000260 Website www.tatasteel.com

$\frac{FORM-V~(See~rule-14~)}{Environmental~Statement~for~the~financial~year~ending~the~31^{st}~March~-2015}\\ Jamadoba~Colliery$

PART - A

1.Name and address of the owner/ occupier of the : industry/ operation or process	Jamadoba Colliery
Manager :	Mr. Sanjeev Thakur Head(Jamadoba Colliery) Tata Steel Ltd., P.O Jamadoba Dist Dhanbad, Jharkhand-828112
Nominated Owner :	Mr. T.V.Narendran Managing Director, Tata Steel Ltd (India and South East Asia) Jamshedpur, Dist- East Singhbhum Jharkhand – 831 001
2.Industry category: Primary (STC Code) Secondary (STC Code)	-
3.Production Capacity - Units	0.34 MTPA – Raw coal
4.Year of Establishment	1902
5.Date of the last environmental statement submitted	27 th September' 2014 (Vide Letter No.S&E/ENV/ESSA/05/870/14)

PART - B

Water and Raw Material Consumption

Water Consumption M³ / day. 1.

	Water consumption in 2013-2014	Water consumption in 2014-2015		
Process	Not Applicable	Not Applicable		
Industrial	(This is included in the Environm	(This is included in the Environment Statement of Jamadoba Washery)		
Domestic	4836.4 M³/day	5031.5 M³/day		
Other	Not Applicable	Not Applicable		

SI. No	Name of the products	Process water consumption per unit of product output.			
		During the previous financial year 2013-2014	During the current financial year 2014-2015		
1. Raw Coal		Not Applicable	Not Applicable		

Environmental Statement for the financial year ending the 31st March -2015 Jamadoba Colliery

Raw Material Consumption 2.

SI. No	Name of the Raw Material	Name of the product	Raw Materials consumption per unit production output.			
			During the previous financial year 2013-2014	During the current financial year 2014-2015		
1.	Explosives		0.51 Kg/Tonne	0.43 Kg/Tonne		
2.	Detonators	Raw Coal	0.96 Nos/Tonne	0.82 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.

SI. No	Pollution	Quantity o discharged (n	-	llutants ay)	[] : [- 10 - 10 - 10 - 10 - 10 - 10 - 10 -			Percentage of variation from prescribed standard with reason.	
A.	AIR	PM 10 Level : 24 Hourly Limit- 100µg/m ³	: 24 Li	M _{2.5} Level 24 Hourly Limit- 60μg/m ³		SOx Level: 24 Hourly Limit- 80µg/m ³		Level: lourly mit- g/m ³	All values are within limits.
		87.6	4	5.8	1-	17.2	2:	2.1	
В.	WATER	Parameter Re		Resul	ts Measure Lim ment		Limit	All values are within limits.	
		pН		7.6		pH 5.5-9.0		.5-9.0	
		Total Suspen Solid	ded	22.5		mg/ltr.		100	
		Total Dissol Solid	al Dissolved 630.3 Solid		mg/ltr.		• :	2100	
	THE STATE	Biological Ox Demand	-	4.4	mg/ltr			30	
		Chemical Ox Demand		38.9		mg/ltr.		250	
		Oil & Grea	se	0.9	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.

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PART - D **Hazardous Wastes**

(as specified under Hazardous Waste (Management, Handling & Transboundary Movement) **Rules**, 2008)

SI	Hazardous Waste	Total Quantity (Kg.)			
No		During the previous financial year 2013-2014	During the current financial year 2014-2015		
1.	From process Used Oil Used cap lamp Battery	840 Litres 500 Nos	2600 Litres 200 Nos		
2.	From pollution control facility	2 7	-		

PART-E **Solid Wastes**

SI No	Solid Wastes	Total Quantity (Kg.)			
		During the previous financial year 2013-2014	During the current financial year 2014-2015		
1.	Steel Scrap and other materials (conveyor belt, cable pieces waste) collected from U/G mines.	272.29 Tonnes	420 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	Steel scrap and other solid wastes, which is mentioned here sent to central scrap yard for segregation and disposal to vendors.	
Solid Waste 1. Steel Scrap and other materials	Solid	420 Tonnes		
Hazardous Waste 1. Used Oil 2. Used Cap Lamp Battery	Used Oil (Liquid) Battery(Solid)	2600 Litres 200 Nos	Hazardous wastes are disposed off to registered recyclers according to applicable Hazardous Wastes Management Rules.	

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PART-G

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

- Rs. 210.99 Lakhs yearly on cost of stowing activities.
- Rs. 85 Lakhs yearly on cost of Fire Control measures (Fire/Isolation Stopping and Nitrogen plant)
- Rs. 2 Lakhs yearly on cost of Goaf Filling activities.
- Rs. 10.7 Lakhs yearly on cost of Drain repairing /maintenance.
- Rs. 30.69 lakhs incurred for making potable water in Water Treatment Plant and supply to employees' colony.
- Rs. 9.16 lakhs incurred annually for Horticultural activities including green belt development and regular lawn and garden maintenance.
- Extensive plantation in and around the unit for which the annual expenditure of Rs. 4.81 lakhs was incurred.

Total annual expenditure incurred towards environmental protection is Rs. 353.35 lakh.

Annual raw coal production of the plant during the year is 2.70 lakh tonnes.

So the impact of the pollution abatement measures and environment protection shall be Rs. 130.87 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 like creation of herbal garden, butterfly-park have been taken to improve the aesthetic value and beautification of the area.

Tree plantation will be continued in the leasehold area. Water pumped out of the mine will continue to be used in washery and power house other than use in stowing.

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.
- 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.
- We also reimburse the cost of LPG cylinder refilling cost to the employees to avoid coal burning.

Environmental Statement for the financial year ending the 31st March -2015 Jamadoba Colliery

- 6. Regular monitoring of Air Quality & mine water analysis by our separate environment management cell.
- 7. We have already done the tree plantation job and this is a continuous process in company leasehold areas.
- 8. Regular thrust on Environment awareness conducting training classes at P.T.I., Jamadoba.

9. We are an IMS certified unit (ISO 9001 & 14001 and OHSAS 18001 certified).

Name of Unit - Jamadoba Colliery

Head, Jamadoba Colliery
TATA STEEL LIMITED