

**FORM – V (See rule – 14 )**

**Environmental Statement for the financial year ending the 31<sup>st</sup> March -2014**

Jamadoba Power House No. 3

**PART – A**

<b>1.Name and address of the owner/ occupier of the : industry/ operation or process</b>	<b>Power House</b>
<b>Agent/ Head</b> :	<b>Mr. Bappa Bole</b> Senior Manager (Power Systems) Jamadoba Power House No. 3 Tata Steel Ltd., P.O.- Jamadoba Dist.- Dhanbad, Jharkhand-828112
<b>Nominated Owner</b> :	<b>Mr. T.V.Narendran</b> Managing Director, Tata Steel Ltd (India and South East Asia) Jamshedpur, Dist- East Singhbhum Jharkhand – 831 001
<b>2.Industry category: Primary (STC Code) Secondary (STC Code)</b>	--
<b>3.Production Capacity – Units</b>	10 MW
<b>4.Year of Establishment</b>	1988
<b>5.Date of the last environmental statement submitted</b>	30 <sup>th</sup> September' 2013 (Vide Letter No.S&E/ENV/ESSA/05/958/13)

**PART – B**

**Water and Raw Material Consumption**

**1. Water Consumption M<sup>3</sup> / day.**

	<b>Water consumption in 2013-2014</b>
<b>Process</b>	2898 M <sup>3</sup> / day
<b>Cooling</b>	
<b>Domestic</b>	2 M <sup>3</sup> / day
<b>Other</b>	Not Applicable

<b>Sl. No</b>	<b>Name of the products</b>	<b>Process water consumption per unit of product output.</b>	
		<b>During the previous financial year 2012-2013</b>	<b>During the current financial year 2013-2014</b>
1.	Electricity Power	15.42 Ltrs./KWH	19.90 Ltrs./KWH

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**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 2012-2013	During the current financial year 2013-2014
1.	Coal Rejects	Electricity	2.42 kgs/KWH	2.76 kgs/KWH

\*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	SPM Level : 24 Hourly Limit- 700µg/m <sup>3</sup>	RPM Level : 24 Hourly Limit- 300µg/m <sup>3</sup>	SO <sub>2</sub> Level: 24 Hourly Limit- 120µg/m <sup>3</sup>	NO <sub>x</sub> Level: 24 Hourly Limit- 120µg/m <sup>3</sup>	All values are within limits.
		<i>(As per Air Quality Standards for Jharia Coal Mines vide notification G.S.R.742(E), dated 25.9.2000)</i>				
		276.48	140.85	11.74	15.90	
B.	WATER	Zero water discharge (Closed water circuit system). The analysis of water in the final settling ash pond is as follows:				All values are within limits.
		<b>Parameter</b>	<b>Results</b>	<b>Measure ment</b>	<b>Limit</b>	
		pH	8.3	pH	5.5-9.0	
		Total Suspended Solid	81	mg/ltr.	100	
		Oil & Grease	3.2	mg/ltr.	10	
C.	STACK	SPM (mg/NM <sup>3</sup> )	SO <sub>2</sub> (mg/NM <sup>3</sup> )	NO <sub>x</sub> (mg/NM <sup>3</sup> )		All values are within limits.
		139.87	16.70	40.32		

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

Sl No	Hazardous Waste	Total Quantity	
		During the previous financial year 2012-2013	During the current financial year 2013-2014
1.	From process Used Oil Used cap lamp Battery	420 Litres Nil	2520 Litres Nil
2.	From pollution control facility	-	-

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**PART – E**  
**Solid Wastes**

Sl No	Solid Wastes	Total Quantity	
		During the previous financial year 2012-2013	During the current financial year 2013-2014
1.	From process Bed Ash Scrap material	37977 Tonnes 41.4 Tonnes	34565 Tonnes 33.66 Tonnes
2.	From pollution control mechanism Fly Ash	103574 Tonnes	98787 Tonnes
3.	Quantity recycled or reutilized within the unit/ sold/ disposed	Bed ash reutilized in stowing process. Flyash bricks used for making bricks	Bed ash reutilized in stowing process. Flyash used for making bricks, reclamation purpose.

**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
<b>Solid Waste</b> <b>1. Bed Ash</b>	Solid	34565 Tonnes	Bottom ash is quenched and conveyed to a silo by belt conveyor. This ash is transported to collieries for stowing in underground mines after mixing with sand. Fly ash is taken out of ESP as wet slurry and is guided to settling ponds through drain. After settling ash is taken out and transported to low lying areas for filling. Once the area is filled up, tree plantation is undertaken after putting good earth on the top. Fly ash bricks are also utilized for manufacturing bricks. Steel scrap is sent to central scrap yard for segregation and disposal to vendors.
<b>2. Fly Ash</b>	Solid	98787 Tonnes	
<b>3. Scrap material</b>	Solid	33.66 Tonnes	
<b>Hazardous Waste</b> <b>1. Used Oil</b>	Used Oil (Liquid)	2520 Litres	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.**

- (a) Performance of ESP is quite satisfactory due to which stack emission is not polluting environment where by it is not disturbing the ecology.
- (b) Total effluent discharged from the plant is recycled back to the plant after settling. Settling ponds are always maintained properly.
- (c) Cost incurred for Ash Handling & Pond management system is Rs. 198.2 Lakhs
- (d) Cost incurred for hygienic conditioning is Rs. 2.92 Lakhs
- (e) Expenditure for Dust Suppression system (Dry fog system + water sprinklers): Rs.2.52 lakhs.
- (f) Expenditure for ESP maintenance: Rs. 3.25 Lakh.
- (g) Cost incurred for Housekeeping measures: Rs. 3.95 lakhs.

A Continuous Ambient Air Quality Monitoring Station has been installed at Jamadoba for online monitoring with data transfer to JSPCB, Ranchi. Cost incurred for this system is 60 lakhs.

**PART – H**

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

Online stack monitoring system will be upgraded and impervious lining of ash ponds will be further extended to other ponds.

**PART – I**

**Any other particulars for improving the quality of environment**

- 1. Spraying of water by Company's tanker on roads surrounding Power Plant is being done on regular basis to control ambient air quality.
- 2. Afforestation and horticulture has been done on new areas filled up with fly ash.
- 3. Rain harvesting system is modified.
- 4. Stack emission is continuously monitored and maintained.
- 5. We are an IMS certified unit (ISO 9001 & 14001 and OHSAS 18001 certified).

**Name of Unit – Jamadoba Power House No. 3**

**Sr. Mgr (Power Systems)  
Jamadoba Power House No. 3  
TATA STEEL LIMITED**