



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/ 726 /2016

September 22 , 2016

Dear Sir,

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

**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 Horni 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 31<sup>st</sup> March -2016**  
**Digwadih Colliery**

**PART – A**

<b>1.Name and address of the owner/ occupier of the : industry/ operation or process</b>	<b>Digwadih Colliery</b>
<b>Manager :</b>	<b>Mr. Vikash Kumar</b> Head(Digwadih Colliery) Tata Steel Ltd., P.O.- Jealgora Dist.- Dhanbad, Jharkhand-828110
<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>	0.60 MTPA – Raw Coal
<b>4.Year of Establishment</b>	1918
<b>5.Date of the last environmental statement submitted</b>	28 <sup>th</sup> September' 2015 (Vide Letter No.S&E/ENV/ESSA/05/835/15)

**PART – B**

**Water and Raw Material Consumption**

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

	<b>Water consumption in 2014-2015</b>	<b>Water consumption in 2015-2016</b>
<b>Process</b>	Not Applicable	Not Applicable
<b>Industrial</b>	19.35 M <sup>3</sup> /day	19.35 M <sup>3</sup> /day
<b>Domestic</b>	999.5 M <sup>3</sup> /day	1166.2 M <sup>3</sup> /day

<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 2014-2015</b>	<b>During the current financial year 2015-2016</b>
1.	Raw Coal	Not Applicable	Not Applicable

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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 2014-2015	During the current financial year 2015-2016
1.	Explosives	Raw Coal	0.35 Kg/Tonne	0.29 Kg/Tonne
2.	Detonators		0.66 Nos/Tonne	0.53 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 <sub>10</sub> Level : 24 Hourly Limit- 100µg/m <sup>3</sup>	PM <sub>2.5</sub> Level : 24 Hourly Limit- 60µg/m <sup>3</sup>	SO <sub>2</sub> Level: 24 Hourly Limit- 80µg/m <sup>3</sup>	NO <sub>2</sub> Level: 24 Hourly Limit- 80µg/m <sup>3</sup>	Ambient air quality is being measured and all values are within limits as per NAAQS, 2009.
		90.45	42.80	24.58	19.43	
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 FY16 is provided here.
		pH	7.7	pH	5.5-9.0	
		Total Suspended Solid	16.8	mg/ltr.	100	
		Total Dissolved Solid	599.3	mg/ltr.	2100	
		Biological Oxygen Demand	3.4	mg/ltr.	30	
		Chemical Oxygen Demand	38.1	mg/ltr.	250	
Oil & Grease	1.4	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 31<sup>st</sup> March -2016**  
Digwadih Colliery

**PART – D**

**Hazardous Wastes**

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

Sl No	Hazardous Waste	Total Quantity (Kg.)	
		During the previous financial year 2014-2015	During the current financial year 2015-2016
1.	From process Used Oil Used cap lamp Battery	3000 Litres Nil	2217 Litres 35 Nos
2.	From pollution control facility	-	-

**PART – E**

**Solid Wastes**

Sl No	Solid Wastes	Total Quantity ( Kg.)	
		During the previous financial year 2014-2015	During the current financial year 2015-2016
1.	Steel Scrap and other materials (conveyor belt, cable pieces waste) collected from U/G mines.	157 Tonnes	226 Tonnes
2.	Quantity recycled or reutilized within the unit/ sold/ disposed	All wastes sold to recyclers	All wastes sold to recyclers

**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> 1. Steel Scrap and other materials	Solid	226 Tonnes	Steel scrap and other solid wastes, which is mentioned here sent to central scrap yard for segregation and disposal to vendors.
<b>Hazardous Waste</b> 1. Used Oil	Used Oil (Liquid)	2217 Litres	Hazardous wastes are disposed off to registered recyclers according to applicable Hazardous Wastes Management Rules.
2. Used Cap Lamp Battery	Battery(Solid)	35 Nos	

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**PART – G**

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

<b>S. No.</b>	<b>Environment Management Activity</b>	<b>Expenditure in Lakhs</b>
1	Stowing activities i.e filling of U/G voids for surface protection and prevention of subsidence	750.04
2	Fire Control measures (Fire/Isolation Stopping and Nitrogen plant)	8.79
3	Goaf Filling activities	5.74
4	Drain repairing and maintenance, settling tank maintenance jobs	4.83
5	Making potable water in Water Treatment Plant & Supply to colonies	33.76
6	Horticultural activities including green belt development and regular lawn and garden maintenance	9.34
7	Plantation of saplings and maintenance	0.89
	<b>Total Cost incurred</b>	<b>813.39</b>

Total annual expenditure incurred towards environmental protection is **Rs. 813.39 lakhs.**

Annual raw coal production of the plant during the year is **3.08 lakh tonnes.**

So the impact of the pollution abatement measures and environment protection shall be **Rs. 263.29 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.

**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 in underground mines.
4. Our welfare department arranges to clean the domestic garbage's from our colonies to provide better environment.
5. We also reimburse the cost of LPG cylinder refilling cost to the employees to avoid coal burning.

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6. Regular monitoring of Air Quality & mine water analysis by our separate Environment Cell.
7. We have already done the tree plantation job and this is a continuous process in company lease hold 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 – Digwadih Colliery**

  
**Head, Digwadih Colliery**  
**TATA STEEL LIMITED**