



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/ 823 /2018

September 24, 2018

Sub: Annual Environment Statement in Form V for the year 2017-18.

Dear Sir,

We are enclosing herewith Annual Environment Statement in Form-V for the financial year 2017-18 in respect of **Bhelatand A. Colliery** of M/s Tata Steel Limited, Jharia Division for your kind perusal.

Kindly acknowledge the receipt of the same.

Thanking you,

Yours faithfully,

**Sr. 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**

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**FORM – V (See rule – 14)**

**Environmental Statement for the financial year ending the 31<sup>st</sup> March -2018**  
Bhelatand A. Colliery

**PART – A**

<b>1.Name and address of the owner/ occupier of the : industry/ operation or process</b>	<b>Bhelatand A. Colliery</b>
<b>Manager</b> :	<b>Mr. Barun Banerjee</b> Head(Bhelatand A. Colliery) Tata Steel Ltd., P.O.- Bhelatand Dist.- Dhanbad, Jharkhand-828103
<b>Nominated Owner</b> :	<b>Mr. T.V.Narendran</b> CEO&MD, Tata Steel Ltd Jamshedpur, Dist- East Singhbhum Jharkhand – 831 001
<b>2.Industry category: Primary (STC Code) Secondary (STC Code)</b>	--
<b>3.Production Capacity – Units</b>	0.34 MTPA – Raw Coal
<b>4.Year of Establishment</b>	1910
<b>5.Date of the last environmental statement submitted</b>	25 <sup>th</sup> September' 2017 (Vide Letter No.S&E/ENV/ESSA/05/840/17)

**PART – B**

**Water and Raw Material Consumption**

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

	<b>Water consumption in 2016-2017</b>	<b>Water consumption in 2017-2018</b>
<b>Process</b>	Not Applicable	Not Applicable
<b>Industrial</b>	70.57 M <sup>3</sup> /day	68.16 M <sup>3</sup> /day
<b>Domestic</b>	2060.20 M <sup>3</sup> /day	2175 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 2016-2017</b>	<b>During the current financial year 2017-2018</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 2016-2017	During the current financial year 2017-2018
1.	Explosives	Raw Coal	0.26 Kg/Tonne	0.33 Kg/Tonne
2.	Detonators		0.51 Nos/Tonne	0.85 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.
		85.53	46.34	9.08	9.31	
B.	WATER	<b>Parameter</b>	<b>Results</b>	<b>Unit of measure</b>	<b>Limit</b>	The quality of mine water is being measured on monthly basis and all values are within the limits. Average value for FY18 is provided here.
		pH	7.4	pH	5.5-9.0	
		Total Suspended Solid	11.8	mg/ltr.	100	
		Total Dissolved Solid	665.6	mg/ltr.	2100	
		Biological Oxygen Demand	4.4	mg/ltr.	30	
		Chemical Oxygen Demand	26.0	mg/ltr.	250	
		Oil & Grease	1.5	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 -2018**  
 Bhelatand A. 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 2016-2017	During the current financial year 2017-2018
1.	From process Used Oil Used cap lamp Battery	Nil Nil	843.6 Ltrs 1500 Nos
2.	From pollution control facility	-	-

**PART – E**  
**Solid Wastes**

Sl No	Solid Wastes	Total Quantity ( Kg.)	
		During the previous financial year 2016-2017	During the current financial year 2017-2018
1.	Steel Scrap and other materials (conveyor belt, cable pieces waste) collected from U/G mines.	135.64 Tonnes	63.81 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. <b>Steel Scrap and other materials</b>	Solid	63.81 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. <b>Used Oil</b> 2. <b>Used Cap Lamp Battery</b>	Used Oil (Liquid) Battery(Solid)	843.6 Ltrs 1500 Nos	Generally, 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 31<sup>st</sup> March -2018**  
Bhelatand A. 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	496.33
2	Fire Control measures (Fire/Isolation Stopping and Nitrogen plant)	1.12
3	Goaf Filling activities, drain repairing and maintenance, settling tank maintenance jobs	9.99
4	Making potable water in Water Treatment Plant & Supply to colonies	33.39
5	Horticultural activities including green belt development and regular lawn and garden maintenance	9.2
6	Plantation of saplings and maintenance	1.66
	<b>Total Cost incurred</b>	<b>551.69</b>

Total annual expenditure incurred towards environmental protection is Rs. **551.69 lakhs**

Annual raw coal production of the plant during the year is **2.07 lakh tonnes**.

So the impact of the pollution abatement measures and environment protection shall be **Rs. 266.24 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 in FY18 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.

A Sewage Treatment Plant has been installed of 200KLD capacity for treatment of domestic sewage of Adarsh Nagri Colony at Bhelatand at a cost of Rs. 65 lakhs. Regular operation and maintenance is being done to ensure optimum performance of plant.

**FORM – V (See rule – 14 )**  
**Environmental Statement for the financial year ending the 31<sup>st</sup> March -2018**  
**Bhelatand A. Colliery**

**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 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 – Bhelatand A. Colliery**

  
**Head, Bhelatand A. Colliery**  
**TATA STEEL LIMITED**