



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/ 833 /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 **KALIMELA OPEN CAST PROJECT**.

Kindly acknowledge the receipt of the same.

Thanking you,

Yours faithfully,


Manager (Environment)


29/9/15
Jharkhand State Pollution Control Board
Regional Office
Dhanbad

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 66658282 Fax 91 22 66657724
Corporate Identity Number L27100MH1907PLC000260 Website www.tatasteel.com

o/c
File

FORM – V (See rule – 14)
Environmental Statement for the financial year ending the 31st March -2015
Kalimela Open Cast Project

PART – A

1.Name and address of the owner/ occupier of the : industry/ operation or process	Kalimela Open Cast Project
Manager :	Mr. Sanjeev Thakur Head(Kalimela Open Cast Project) 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	October'2009
5.Date of the last environmental statement submitted	27 th September' 2014 (Vide Letter No.S&E/ENV/ESSA/05/864/14)

PART – B

Water and Raw Material Consumption

1. Water Consumption M³ / day

	Water consumption in 2013-2014	Water consumption in 2014-2015
Process	Not Applicable	Not Applicable
Industrial	48.54 M ³ /day	39.23 M ³ /day
Domestic	Not Applicable	Not Applicable
Other	Not Applicable	Not Applicable

Sl. 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

FORM – V (See rule – 14)**Environmental Statement for the financial year ending the 31st March -2015**
Kalimela Open Cast Project**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 2013-2014	During the current financial year 2014-2015
1.	Explosives	Raw Coal	2.45 Kg/Tonne	1.19 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 _x Level: 24 Hourly Limit- 80µg/m ³	NO _x Level: 24 Hourly Limit- 80µg/m ³	All values are within limits.
		87.6	45.8	17.2	22.1	
B.	WATER	Zero water discharge (Closed water circuit system). The analysis of water in the settling tank is as follows:				All values are within limits.
		Parameter	Results	Measurement	Limit	
		pH	7.59	pH	5.5-9.0	
		Total Suspended Solid	21.57	mg/ltr.	100	
		Total Dissolved Solid	594.29	mg/ltr.	2100	
		Biological Oxygen Demand	4.33	mg/ltr.	30	
		Chemical Oxygen Demand	39.14	mg/ltr.	250	
		Oil & Grease	0.75	mg/ltr.	10	

The open cast project 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 -2015****Kalimela Open Cast Project****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 2013-2014	During the current financial year 2014-2015
1.	From process Used Oil	6720 Litres	2800 Litres
2.	From pollution control facility	-	-

PART – E**Solid Wastes**

Sl No	Solid Wastes	Total Quantity (Kg.)	
		During the previous financial year 2013-2014	During the current financial year 2014-2015
1.	Overburden	485935 m3	356000 m3
2.	Quantity recycled or reutilized within the unit/ sold/ disposed	OB has been dumped in an external dump area of 12 Ha which will later be used for backfilling 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
Solid Waste 1. Overburden	Solid	356000 m ³	Overburden is dumped at earmarked sites within the leasehold area as per Environmental Clearance conditions. They will be reclaimed to stabilize the dumps.
Hazardous Waste 1. Used Oil	Used Oil (Liquid)	2800 Litres	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 31st March -2015
Kalimela Open Cast Project

PART – G

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

Top soil management done to conserve the top soil. Grasses and shrubs have been planted on the dumps to stabilize it.

Adequate dust suppression arrangement is made in haul roads.

- Rs. 2.62 lakhs incurred for Water sprinkling activities.
- Rs. 8.69 Lakhs incurred for cleaning and maintenance of Garland drains and retention wall.
- Rs. 30.69 lakhs incurred for making potable water in Water Treatment Plant and supply to employees' colony.
- Rs. 8.49 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. 55.3 lakhs.

Annual raw coal production of the plant during the year is 0.62 lakh tonnes.

So the impact of the pollution abatement measures and environment protection shall be 89.19 Rs 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.

Backfilling of the mine voids will begin and OB from the external dump will be used for this purpose. The area will be reclaimed and then plantation would be done on the reclaimed 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 dust in open cast mining.
4. Our welfare department arranges to clean the domestic garbages 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.
6. Regular monitoring of Air Quality by our separate environment management cell.

FORM – V (See rule – 14)

Environmental Statement for the financial year ending the 31st March -2015
Kalimela Open Cast Project

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. Controlled blasting done and wet drilling practiced in mines.

Name of Unit – Kalimela Open Cast Project


Head, OCP Kalimela
TATA STEEL LIMITED