

# **ENVIRONMENTAL STATEMENT 2012-13**



## **KATAMATI IRON MINE TATA STEEL LIMITED**

**SEPTEMBER, 2013**

FORM – V  
(See rule-14)

Environmental Statement for the financial year ending the 31<sup>st</sup> March 2013

P A R T – A

- i. Name and address of the owner/  
occupier of the industry, operation  
or process
- Katamati Iron Mine,  
Tata Steel Limited  
Noamundi – 833 217  
Dist. Singhbhum West  
Jharkhand

Agent Mr Pankaj Satija  
Chief, Noamundi

Nominated Owner Mr H M Nerurkar  
Managing Director  
Tata Steel Limited  
Jamshedpur-831 001

- ii. Date of last Environmental Statement  
submitted. September 27, 2012  
Vide our letter no. MD/ENV/1046/120/12

P A R T – B

**WATER AND RAW MATERIALS CONSUMPTION**

1.

Water Consumption m <sup>3</sup> /day	(Average requirement)
Process	Nil
Cooling (Sprinkling)	220
Domestic	NIL

Name of products	Water Consumption for unit of products	
	During the previous financial year (2011-2012)	During the current financial year (2012-13)
	Nil	Nil

This is a mechanised mine producing iron ore and the process does not require water for mining. Also no ore processing is done.

There is no colony inside the lease area and water requirement is only for drinking during the shift.

## 2. Raw material consumption

Name of raw materials	Name of the products	Consumption of raw materials per unit of products	
		During the previous financial year	During the current financial year

This is an open cast mine producing iron ore. As such, the mine requires no raw material from outside other than consumables. Overburden is being removed for mining purpose. The ROM production during 2012-13 was 4995000 MT. This was 4419000 tonne during 2011-12.

**P A R T – C**  
**POLLUTION GENERATED**

**Water:**

The iron ore excavation does not require water for any process and hence there is no discharge from the mine. Even, there is no colony inside the lease area.

Pollutants	Qty. of pollutants discharged (Kg/day)	Concentration of pollutants (milligrams/ litre)	Standards (milligrams/ litre)	Percentage of variation from standards with reasons
Not applicable There is no outside discharge of any industrial effluent.				

**Air:****FY' 13**

Pollutants	Qty. of pollutants Discharged (Kg/day)	Concentration of pollutants ( $\mu\text{g} / \text{m}^3$ )	Standards ( $\mu\text{g} / \text{m}^3$ )
<b>Near Working Quarry</b>			
1. PM <sub>10</sub>	-	50.68	60
2. PM <sub>2.5</sub>		31.40	40
3. SO <sub>2</sub>	-	9.23	50
4. NO <sub>x</sub>	-	9.46	40

<b>Crusher Plant</b>			
1. PM <sub>10</sub>	-	49.89	60
2. PM <sub>2.5</sub>		30.65	40
3. SO <sub>2</sub>	-	9.12	50
4. NO <sub>x</sub>	-	9.34	40
<b>NW of Mining lease</b>			
1. PM <sub>10</sub>	-	40.16	60
2. PM <sub>2.5</sub>		20.73	40
3. SO <sub>2</sub>	-	8.43	50
4. NO <sub>x</sub>	-	8.65	40
<b>On the way to Magazine</b>			
1. PM <sub>10</sub>	-	41.57	60
2. PM <sub>2.5</sub>		22.35	40
3. SO <sub>2</sub>	-	8.56	50
4. NO <sub>x</sub>	-	8.78	40

This is an opencast mine and does not have any single point source of air pollutants. Hence, the quantity of air pollutants discharged in Kg/day cannot be ascertained. The above data show the ambient air quality during FY 13.

## P A R T – D

### HAZARDOUS WASTES

Hazardous Waste	Total Quantity in Kilograms	
	During the previous financial year	During the current financial year
a) from process	Not applicable As the mine neither generates nor handles any hazardous/toxic substances specified under Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008. There is common facility for maintenance of vehicles and equipments at Noamundi Iron Mine. Hence, the hazardous waste such as, used oil & waste containing oil are counted under Noamundi Iron Mine of the Steel Company.	
- used oil in liquid form		
- Oily wastes in solid form		
- used battery in solid form		
b) from pollution control facilities		

**P A R T – E**  
**SOLID WASTES**

Solid waste from this mine is generated while removing overburden during mining operations.

Solid Waste	Total Quantity in tonnes	
	During the previous financial year	During the current financial year
a) from process		
- Mining Overburden	-348000 MT	-832000 MT
- Rejects	-252887 MT	-710800 MT
- Spoils	-	-
- Ore washing slimes	Nil	Nil
b) from pollution control facilities	Nil	Nil
c) 1. Quantity recycled or reutilised 2. Sold 3. Disposed	Nil	Nil

**P A R T - F**

**The characteristics (in terms of concentrations and quantum) of hazardous as well as solid waste and disposal practice adopted for both this categories of wastes.**

No hazardous wastes are generated during the operations. The mining equipments are maintained in the workshop of nearby Noamundi Iron Mine of the Company.

Solid wastes generated as overburden consists mainly of lateritic morum. The overburden is systematically and scientifically dumped on a geologically barren area and the same is reclaimed by afforestation once it becomes inactive.

Solid waste/reject generated as sub-grade is inert. The average chemical compositions of subgrade material are as given in the following table:

**Sub- grade (Reject)**

Fe	54.60%
SiO <sub>2</sub>	13.15%
AL <sub>2</sub> O <sub>3</sub>	4.58%
Phos	0.068%

## PART – G

The impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production

- Efforts were made to reduce the consumption of lubricant oil used in Heavy Mining Equipments, by timely maintenance, arresting leakages and eliminating spillages.
- Water spraying on mine haul road by water tankers has reduced the dust levels in the ambient air. The cost of operation and maintenance of water sprinklers during 2012-13 was about ₹ 28.88 lakhs
- During 2012-13, a total of 17000 nos. of plants and 15000 grass tufts along roads, vacant places and inactive dump slopes were planted. Moreover, vetiver plantation was carried out over 0.4 ha with 20000 slips for which the company spent ₹ 04.94 lakhs during the year.
- To generate awareness among the employees and their families about environment, World Environment Day & MEMC week was celebrated at Joda. During 2012-13 an amount of ₹ 0.50 lakh was spent on this account.
- An electronic display board was installed at the main gate for viewing the environmental monitoring data by the public. The company has spent ₹ 01.20 lakhs for its maintenance during 2012-13.
- To reduce diesel consumption in HEMMs, an amount of ₹ 25.00 lakhs was spent towards the use of fuel additives.
- For effective dust suppression at haul roads, an amount of ₹ 17.50 lakhs was spent towards dust ban chemical during 2012-13.
- An amount of ₹ 7.20 lakhs was spent towards monitoring of various environmental parameters during the year.

The above pollution control measures have resulted in improvement of air and water quality, reduction in noise level, development of greenery and aesthetics in the mine as well as in residential areas. A total amount of ₹ 85.22 lakhs was spent on environmental related jobs during this year.

In addition to the above Tata Steel Rural Development Society (TSRDS) is engaged in peripheral developmental activities in villages around the mine. The projects of the Society include irrigation and agricultural extension projects, plantation programmes, creation of SAVE FOREST groups, civic amenities development, medi-care and health education, rural sports, skill development and promotion of rural cultural activities.

**P A R T – H**

Additional investment proposal for environmental protection including abatement of pollution.

- During next financial year, it is planned to spend ₹ 15.00 lakhs for monitoring of various environmental parameters.
- During monsoon 2013, we are having the proposal to plant 3,000 saplings covering 1.5 ha of area within the lease area, with a budgetary provision of ₹ 05.00 lakhs.
- An amount ₹ 10.00 lakhs is proposed for further strengthening the environmental laboratory by procuring more monitoring equipments.
- There is plan to install fixed water sprinklers near plant area with a budgetary provision of ₹ 08.00 lakhs during 2013-14.

**P A R T – I**

Any other particulars in respect of environmental protection and abatement of pollution.

- The Company is having a full-fledged Environmental Management Department with personnel from science background to take care of all environmental aspects relating to mines of TATA STEEL. This department is based at Noamundi, Jharkhand, Mines Division's headquarters, which is adjacent to Katamati Iron Mine. This department has in-house capabilities for monitoring various environmental parameters and suggesting to the management necessary abatement measures.
- The mine is certified to ISO 9001:2008, ISO 14001:2004 & OHSAS 18001:2007. All the three systems have been integrated and implemented since 1st August, 2008. Moreover, the mine has also been recently certified to SA 8000:2008.



**Head (Planning), OMQ**