



**The Member Secretary
Jharkhand State Pollution Control Board
T A Division Building,
HEC Campus, Dhurwa
Ranchi – 834004**

MD/ ENV/ 338 /112 / 2025
Date: 23rd September 2025

**Sub: Environmental Statement of Vijay-II Iron Ore Mines, Tata Steel Limited for
2024-25.**

Dear Sir

Kindly find attach herewith the Environmental Statement in the prescribed format (Form V) as per “Environmental (Protection) Amendment Rules 1992” of our Vijay-II Iron Ore Mines for your kind perusal.

Thanking you,

Yours faithfully
f: Tata Steel Limited

Area Manager (Environment), OMQ

Encl: As above

**Copy to: The Regional Officer, Jharkhand State Pollution Control Board, MB/12
New Housing Colony, Adityapur, Jamshedpur - 831013, Jharkhand**

TATA STEEL LIMITED

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ENVIRONMENTAL STATEMENT

Year: 2024-25



**VIJAY II IRON ORE MINE
TATA STEEL LIMITED**

September - 2025

FORM - V
(See Rule -14)

ENVIRONMENT STATEMENT FOR THE FINANCIAL YEAR ENDING THE 31ST MARCH 2025

VIJAY II IRON ORE MINE, TATA STEEL LIMITED

PART-A

1	Name and address of the owner/ occupier of the industry, operation or process	:	Mr. Rajeev Kumar, Chief (Vijay-II) Vijay-II Iron Ore Mine, Tata Steel Limited PO.: Barajamda, Dist.-West Singhbhum Jharkhand – 833221 Mr. Vivek Kumar Agarwal, Mines Manager Vijay-II Iron Ore Mine, Tata Steel Limited PO.: Barajamda, Dist.-West Singhbhum Jharkhand – 833221
	Nominated Owner	:	Mr. Atul Bhatnagar, General Manager, OMQ division, GM office OMQ, Tata Steel Limited PO.: Noamundi, Dist.-West Singhbhum Jharkhand – 833217
2	Industry Category	:	Opencast Iron Mining Industry (Major)
3	Production Capacity	:	Mine: 2.5 MTPA Iron Ore ROM Production details in FY25: ROM 800775.51 T OB waste 180319.9 m3
4	Year of Establishment	:	2005
5	Date of last Environmental Statement submitted.	:	25th September 2024, vide letter no. VII/MINES/24-25/144 for the year 2023-24

PART-B

Water and Raw Material Consumption

(i) Water Consumption:

Consumption Head:	2023-24 (in cu.m/day) (Annual Average)	2024-25 (in cu.m/day) (Annual Average)
Dust Suppression	107.52	89.99
Greenbelt development	3.50	2.32
Domestic	2.20	2.43
Name of the product	Process water consumption per product output (m3/MT)	
Iron Ore	There is no use of Process Water	

ii) Raw Material Consumption

The following items have been consumed/ utilized:

Name of Raw Materials	Name of Product	Consumption of Raw Material	
		During previous year (2023-24)	During current year (2024-25)
High Speed Diesel/Diesel oil	Iron Ore of steel grade	2586439 Ltrs	1590900 Ltrs
Explosive		101875 kg	102325 kg

PART – C
POLLUTION DISCHARGED TO ENVIROMENT/ UNIT OF OUTPUT
(Parameters as specified in the consent issued)

Pollutants	Quantity of Pollutants discharged (mass / day)	Concentration of Pollutants discharges (mass / day)	Percentage of variation from prescribed standards with reasons
Water	The Vijay-II Iron Ore Mine has no water used in their beneficiation process. Also, there is no water discharge from mine. Additionally, Surface water quality and Groundwater quality is being monitored quarterly by NABL accredited lab.		
Air	PM ₁₀ : NIL Kg/Day	59.78 µg/m ³	00.37 % Lower side
	PM _{2.5} : NIL Kg/Day	23.4 µg/m ³	42.50 % Lower side
	SO ₂ : NIL Kg/Day	11.6 µg/m ³	76.80 % Lower side
	NO _x : NIL Kg/Day	22.3 µg/m ³	44.25 % Lower side
	CO: NIL Kg/Day	0.5 mg/m ³	75.00 % Lower side
	The Vijay-II Iron Ore Mine is an opencast iron mine. The air quality in the form of fugitive, dust fall, ambient, respirable is being measured and monitored regularly and is well within limits. Water jets with mist water spray is used for suppressing fugitive emission from various activities. Measures such as fixed water sprinkling, mobile water sprinkling etc. is done on haul roads to ensure fugitive emission under limits as specified in the guidelines. The measured values for fugitive emissions are found within the prescribed norms. All feed hoppers where ore is unloaded, and all transfer chutes have been provided with dry-fog dust suppression system. Housekeeping is maintained in the plant area. Raw material (HSD, explosives, etc) are unloaded in covered area. One continuous ambient air quality monitoring station have been established in the core zone for monitoring of PM₁₀, PM_{2.5}, SO_x, NO_x, (NO₂ & NO) & CO parameters with online data connectivity with State Pollution Control Board server. The Ambient air quality is found within the prescribed standards. A thick & dense vegetation is also placed in all surrounding the area which significantly reduces the pollution load.		

PART – D
HAZARDOUS WASTES

As specified under the Hazardous & Other Waste (Management & Trans boundary Movement) Rules, 2016 and amendment thereof

Hazardous Wastes	Total Quantity	
	During previous year (2023-24)	During current year (2024-25)
From Process	Nil	
From Pollution Control Facility	Nil	

PART – E

SOLID WASTES

Solid waste from Vijay-II Iron Ore Mine is Overburden/rejects removed during mining operations. All the materials overburden is stocked in designated place inside the mine.

Sources	During previous financial year (2023-24)	During current financial year (2024-25)
a) From Process		
• From mining as Overburden	256106.4m ²	180319.9 m3
b) From pollution control facilities		
I. Quantity recycled or reutilized within the unit.		
II. Sold	Nil	Nil
III. Quantity disposed.		

PART - F

PLEASE SPECIFY THE CHARACTERISTICS (IN TERMS OF COMPOSITION AND QUANTUM) OF HAZARDOUS AS WELL AS SOLID WASTES AND INDICATE DISPOSAL PRACTICE ADOPTED FOR BOTH THESE CATEGORIES OF WASTES

There is no toxic/hazardous waste present within Iron ore deposit. The generated OB/Waste are Laterite, BHQ, Shale which contain major compounds like FeO, Al₂O₃, SiO₂, and does not have any impact on water and air quality. Generated OB/waste is used for required environmental protection measures like retaining wall at toe of the dump, settling pond and for developing of haul road. In the financial year (2024-25) 180319.9 m3 of OB/waste generated during mining and waste was Used properly in backfilled area. Generated waste during the mining operation is also utilized for road, ramp making, and construction of retaining wall.

PART - G

IMPACT OF POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION

All the pollution control measures taken helped in

- Protecting the green belt/forest adjoining mine
- Protecting soil erosion.
- Protecting silt from flowing along with runoff water during monsoon season.
- Maintaining the quality of air (by control of dust emission).
- Periodical maintenance of equipment to control noise level.
- Improving the local environment.

Implementation of environmental Protective measures and maintenance of the system have reduced impact of pollution to environment.

1. Green Belt Development

- In 2024-25, total 1633 saplings in safety zone and 4078 saplings in backfilled area have been planted during this financial year. Species planted at mine are Shisham, Neem, Karange, Bamboo, Mahaneem, and fruit bearing trees.

2. Air Quality Management

- A Continuous Ambient Air Quality Monitoring System with PM10 ,PM2.5, Sox, NOx and CO analyzer has been installed in Mine.
- AAQ monitoring is being done with NABL accredited Lab in the core and buffer zone of mines.
- PUC certified vehicles are allowed in the mines It is checked on our mines entry gate.
- 08 no. of water tankers have been deployed. equipped with water sprinkling arrangement to suppress the dust at the mines as well as in the surrounding areas.
- Ore is dispatched with only Tarpaulin covered Trucks.
- Drilling machines are equipped with wet drilling arrangements.
- Green belt/plantation is being done in the periphery of the mining lease area in safety zone to arrest dust.
- Personal Protective Equipment's like dust mask, ear plug, Goggles are provided to all employees.
- Inactive Fines stacks have been covered with Tarpaulin.
- Waste dump are covered with Coir mat.

3. Top- Soil Management

- During mining operation whenever we encounter topsoil, we scrape and stack separately in earmarked area. Topsoil is being used for green belt development. Topsoil with binding grass is being spread on dead end slope of dump for generating grass to prevent erosion.

4. Solid Waste management:

- The OB/waste are generally Laterite, BHQ, Shale containing mainly like FeO, Al₂O₃, SiO₂ which are nontoxic hazardous. OB/waste produced during mining of iron ore is used for backfilling.

5. Water Management:

- Surface water Quality, Groundwater quality is being quarterly monitored by NABL accredited laboratory.
- Adequate surface water runoff management measures taken, 628 m of Garland drain and 180 m of Retaining wall have been developed during FY25.
- At the bottom of the OB dumps several Settling ponds developed.
- Check dams developed in series for silt catchment.

PART – H

ADDITIONAL MEASURES/ INVESTMENT PROPOSAL FOR ENVIRONMENTAL PROTECTION INCLUDING ABATEMENT OF POLLUTION, PREVENTION OF POLLUTION

- In addition to the above Tata Steel Foundation(TSF) is engaged in peripheral developmental activities in villages around the mine like various civil amenities projects, digging ponds in support to provision of irrigation water and for other domestic use irrigation and agricultural extensions and in recharging groundwater by arresting the flow of rainwater in downstream, plantation programmes, medi-care and health, education, rural sports and skill development, rural cultural promotion activities taken up in these villages.

PART - I

ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF THE ENVIRONMENT

Vijay-II Iron Ore Mine of Tata Steel Ltd. is a captive mine. The unit has obtained various prestigious accolades.

The unit is having a full-fledged Environmental Management department with well qualified personnel from environmental background to take care of all aspects relating to mines.

Various awareness programs throughout the year conducted in the area which included celebration of World Environment Day, World Water Day, Mine Environment & Mineral Conservation Week, World Bio-diversity Week, Annual Flower & Vegetable Show etc. In which environment conservation models, current & future proposals are made, environment messages through Nukkad natak, poems, slogans, swachhata drive have been done every year.

The mine has established a dense plantation in mine out area.

All above efforts make the mine clean – green and sustainable. In the year 2024-25, **Rs 3.49 Cr** have been spent on various environmental activities from Vijay-II Iron Ore Mine.



Area Manager (Environment), OMQ