TSL/FAMD/KAR/FY27/4516
Date: 30-09-2026

To,
The Member Secretary,
Odisha State Pollution Control Board,
Paribesh Bhawan,
A/118, Nilakantha Nagar,
Bhubaneswar, Pin-751012

Subject: Submission of Environmental statement in FORM-V for the year ending 31st March 2026 in respect of Kamarda Chromite Block of M/S Tata Steel Ltd.

Reference: Rule-14 under Environmental (Protection) Amendment Rule, 1993 (G.S.R 386, 22.04.1993)

Dear Sir,

We are hereby submitting the Annual Environmental Statement in "FORM-V" prescribed under the provisions of above referenced statute, in respect of Kamarda Chromite Block of M/s Tata Steel Ltd., At – Kamarda, PO- Kansa, Dist- Jajpur, Odisha, for the year ending 31st March 2026.

This is for your kind information and perusal please. Receipt of the same may please be acknowledged.

Thanking You.
Yours faithfully,
f: Tata Steel Limited



Agent,
Kamarda Chromite Block
Tata Steel Limited

Copy to: Regional Officer, SPCB, Odisha, At-Dhabalagiri, Po- F.C Project, Jajpur Road, Dist – Jajpur – 755020

Environmental Statement

Form – V (FY 2025 – 26)

For

Kamarda Chromite Block

Submitted By:

Kamarda Chromite Block

M/s. Tata Steel Limited

At: Kamarda, Po: Kalarangiatta, Block-Sukinda
District- Jajpur, Odisha -755028

FORM-V

(See Rule 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE 31st MARCH 2026

KAMARDA CHROMITE BLOCK, M/s. TATA STEEL LIMITED.

Part A

i.	**Name and address of the owner / occupier of the industry operation or process.**	**:**	Shri T V Narendran (Managing Director) M/s. Tata Steel Limited, Plot No. N3/24, IRC Village, Nayapalli, Bhubaneswar, Odisha – 751 015
ii.	**Industry category Primary – (STC code) Secondary – (SIC Code)**	**:**	Primary (SIC): 1000 (Metal Mining) Secondary (SIC): 1060 (Ferro Alloy Ore)
iii.	**Production capacity – Units.**	**:**	0.088 MTPA (Chromite Ore)
iv.	**Year of establishment.**	**:**	2020
v.	**Date of the last Environmental Statement submitted.**	**:**	25.09.2025

PART-B

Water and Raw Material Consumption

A. Water Consumption for FY 2025-26 (April'2025 to March'2026)

Details	Quantity
Total Water Consumption	8657 KL (23.72 KLD)

**Note: In case of mining operation, the water requirement is for dust suppression, plantation & washing of vehicle which has been taken as process consumption of water, which was consumed from ETP treated water.*

B. Specific Water Consumption – (April'2025 to March 2026)

(i) Process water consumption per unit of product output

Name of the Product	Production (MT)	Water consumption per unit of production*
Chrome Ore (ROM)	99,176	0.88 KL/MT

(ii) Raw Material Consumption

Unlike manufacturing processes, mining doesn't involve any such raw materials; However, uses various other resources for ancillary services essential to ensure mining such as Diesel, Electricity and Explosives, etc.

The table below reflects the production and dispatch figures for the last two financial year.

Name of the raw materials	Name of the product	Consumption of raw materials per unit	
		During the current Financial year (Year 2024-25)	During the current Financial year (Year 2025-26)
-Nil-	Chrome Ore	Production 77,340 MT Dispatch 75,539 MT	Production 99,176 MT Dispatch 82,721 MT

Remarks: *-: Mining is not a manufacturing process. The ore produced from Mine head is used as raw material to produce ferro Chrome. Other essential resources used during the reporting period (2025-26) is as follows: Diesel (496.045 KL), Explosive (54250 Kg), Electricity (1651.473 Mw-h)*

PART-C

{POLLUTION DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT}

(Parameters as specified in the consent issued)

a. Water

Sl. No.	Parameters	Unit	Result Average	Maximum Permissible Standard	Variation from the prescribed standard (%)	Quantity (Kg/day)	Remarks for the deviations if any
1.	Suspended Solids	mg/ltr	3.98	100	-96.02	13.97	Within the prescribed limit
2.	Oil & Grease	mg/ltr	3.1	10	-6.9	10.88	Not Detected in any of the samples.
3.	BOD (3) days at 270c	mg/ltr	1.0	30	-29	3.51	Below detection limit.
4.	COD	mg/ltr	4.0	250	-246	14.04	Below detection limit
5.	Hexavalent Chromium as Cr +6	mg/ltr	0.01	0.1	-0.09	0.04	Below detection limit
6.	Total Chromium as Cr	mg/ltr	0.1	2.0	-1.9	0.35	Detected only in few samples
7.	Nickel as Ni	mg/ltr	0.1	3.0	-2.9	0.35	Below detection limit
8.	Iron as Fe	mg/ltr	0.28	3.0	-2.72	0.98	Below detection limit

BDL: Below Detection Limit

b. Air

There is no such point source of emission from the mine. Major source of air pollutants is fugitive dust generated mainly due to the movement of vehicles/HEMMs in the haul roads, drilling/blasing activities etc, which is fugitive in nature and thus has not been quantified (mass/day).

PART-D

HAZARDOUS WASTAGES

(As specified under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016)

Hazardous Waste	Total Quantity	
	During the previous financial year (2024-25)	During the current financial year (2025-26)
(a) From process		
Used/Waste Oil	0.241 Ton	1.5145 Ton
Residual waste containing oil	0.014 Ton	0.065 Ton
Discarded Containers/Barrels/Liners contaminated with Hazardous Wastes/Chemicals	Nil	0.615 Ton
ETP Sludge	46.85 Ton	270 Ton
(b) From pollution control facilities	Nil	Nil

PART-E

Solid Waste

	Solid Waste	Total Quantity (MT)	
		During the current financial year (2024-25)	During the current financial year (2025-26)
(a)	From process (Overburden)	1,61,423 M^3	5,19,089 M^3
(b)	From pollution control facility	Nil	Nil
(c)	(1) Quantity recycled or re-utilized within the unit	Nil	Nil
	(2) Sold	Nil	Nil
	(3) Disposed	1,61,423 M^3	5,19,089 M^3

PART-F

[Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both the categories of wastes.]

The details composition and characteristics of solid and hazardous waste are given below

Characterization of Hazardous Waste: -

- The significant source of hazardous waste is Used oil (HW-5.1) is mainly Hydrocarbons and consist of lubricants, coolants, transformer oil and hydraulic oil. Lead Acetate batteries are also used in HEMM fleet which are mainly of automotive fuel cells.
- Overburden being the only form of significant solid waste contains Quartzite, Laterites, Lateritic soil, Talc schist and serpentine, Nickeliferous limonite, etc.
- Horticultural Waste: All the horticultural waste, food waste and biodegradable waste is getting composted at our facilities

Disposal Practice: -

- **SOLID WASTES** -OB dumps are maintained as per the approved scheme of mine plan where proper terraces and peripheral drains are constructed supported with gabion wall/retention wall to arrest the silt/sediments during monsoon season. Once the slope of the dumps is stabilized then the dumps are reclaimed by plantation of native varieties of forestry saplings.
- **USED OIL** -The used oil generated at various sources is collected in leak proof barrels and then is kept on an impervious floor with oil catch pit. It is also ensured that the caps of the barrels remain intact and horizontal. The storage area is properly fenced, and caution board displayed. The used oil collected from sites are centrally auctioned to an SPCB authorized/registered recycler for recycling. At present, used oil generated from the departmental HEMM fleet (TSL's fleet of HEMM) are managed by the company through auctioning; however major chunk of generation is due to the contractual operations, managed by outsourced agencies as per applicable norms.
- Provision of impervious pit for collection of oily waste in the workshop premises in addition to the existing practice of collection at specified barrels.

PART-G

[Impact of the pollution measures taken on conservation of natural resources and on the cost production]

a) Dust Suppression

- Regular water spraying is being carried out on mine haul road, working site, waste dump yard, ore stack yard loading and unloading points by water tankers to reduce the dust levels.
- 500 mtrs of fixed water sprinkler is installed in main haul road.
- Regular water sprinkling on mineral transportation roads passing through the habitation area as well as other strategic point is being done regularly.
- Wet drilling is a common practice during drilling operation to reduce air pollution.
- Pre- wetting of blasting site and controlled blasting is being practiced reducing dust generation.
- The mineral transportation is being carried out by trucks covered with tarpaulin and properly sealed.
- No trucks are being overloaded at any point of time to avoid spillage Ore and OB in the haul road.

b) Management of surface run - off & mine discharge water

- All the surface run-off water from one side of the quarry during rainy seasons is allowed to channelize through well maintained garland drains having sedimentation pits. Finally, the surface run-off accumulated at Quarry "1&2" for ground water recharge. Effluent Treatment Plant is constructed for the treatment of excess surface run-off from Quarry 1&2.
- Further, at the other side of the quarry the surface run-off has been properly channelized to a big sump from where the whole water has been diverted to Quarry 3&4.
- From the quarry, water is pumped to an effluent treatment plant for detoxification of Cr^{+6} and reduces the Total Suspended Solids (TSS) before any use or discharge.

c) Solid waste management

- Overburden/waste rock is being dumped in the earmarked dump area approved by IBM with suitable terracing. The terraces are stabilized and rehabilitated by massive plantation.
- Retaining walls have been constructed at the toe of various OB dumps to arrest the flow solid material. Garland drains are constructed in and around the OB dumps for drainage of surface run-off.
- Settling pits and check dams inside the garland drain have been constructed to arrest the slit/ soil particles in the water. Yearly twice, the settling pits and garland drains have been desilted.

d) Environmental monitoring.

- Regular monitoring of ambient air quality is being carried out at four appropriate locations in core zone and in four locations in buffer zone as per statue.
- Regular monitoring of Ground water level is being carried out by the installed Piezometric bore wells inside mine lease area.

e) Afforestation

About 4100 local samplings are planted in dump.

f) Noise reduction

- Heavy vehicles operating in mines have good noise control system. Silencers are maintained in good conditions.
- Regular maintenance of the vehicles/ machines is carried out to reduce the noise pollution.
- Controlled blasting is generally practiced minimizing the noise.
- Regular noise level monitoring is being done on monthly basis and the results are found below permissible limit.

g) Medical facilities and health monitoring

- All the employees undergo periodical medical checkup like IME & PME.
- M/s. Utkal polytechnic an occupational checkup health center at Bhubaneswar is periodically conducting initial and periodical examination of the persons working in the project regularly which is recognized by DGMS, Dhanbad.
- A dispensary facility is established at Saruabil Mines to carter for local community and employee of Saruabil & Kamarda mines.

h) <u>ENVIRONMENTAL EXPENDITURE MADE DURING April - 2025 TO March- 2026</u>

Sl. No.	Category	Amount Expensed in FY 26
1	Air Pollution Control Equipment	₹ 17,31,752.00
2	Water Pollution Control Equipment	₹ 99,98,426.80
3	Environment Monitoring	₹ 29,58,815.70
4	Safety & Disaster Management Plan	₹ 5,01,059.20
	Total	**₹ 1,51,90,053.70**

PART-H

[Additional measures/investment proposal for environmental protecting including abatement of pollution, preservation of pollution]

1. Regular maintenance of retaining wall around the foot of the dumps will be provided.
2. More garland drain shall be constructed and maintained all along the dump to channelize the water in a single point of storage as per approved mining plan.
3. One CETP(@1200KL/hr) has been constructed at Saruabil mines to treat the both mines seepage water and surface run-off water.
4. For the stability of the dumps regular slope monitoring is done by précised Total Station Equipment.

PART-I

Any other particular for improving the quality of the environment:

The management of Tata Steel is committed for prevention of the pollution inside and surrounding the lease hold area. Environmental monitoring is being done in core & buffer zones of the lease area to ascertain & to take preventive measure to keep the parameters within stipulated norms.

Environmental Management Practices



Waste dump management with Retaining wall and Garland drain construction





Waste dump plantation in FY 2025-26





Water sprinkling through movable water tanker & Fixed Sprinkler



Vehicle washing with Oil & Grease separation pit



Hazardous storage area





Roof top Rainwater Harvesting Structures constructed for Ground Water Recharge