Ref. No.: FAMD/FAPBL/35/FY27 Dt - 28/09/2026

To,
The Member Secretary
State Pollution Control Board, Odisha
Paribesh Bhawn A/118, Nilakantha Nagar,
Unit-VIII
Bhubaneshwar-751012

Subject: Submission of Environment statement of Ferro Alloys plant M/S Tata Steel limited, Balasore for the year ending 31st March 2026.

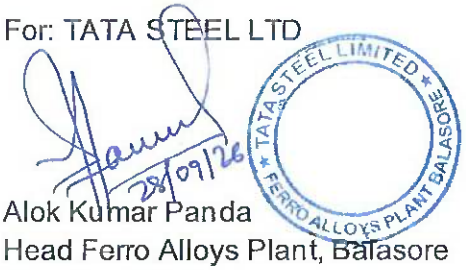
Reference: Rule-14 under Environment (Protection) Rules,1986(Amendment vide G.S.R.386(E) dated 22.04.1993)

Dear Sir,

We are hereby submitting the Annual Environmental Statement in "FORM-V" prescribed under the above referenced statute, for the year ending 31st March 2026 as per rule 14 under Environment (Protection) Rules 1986.

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

Yours faithfully
For: TATA STEEL LTD



Alok Kumar Panda
Head Ferro Alloys Plant, Balasore
Tata Steel Limited
Mob: 9238087011

Copy to: 1. Regional Officer, State Pollution Control Board, Balasore



ENVIRONMENTAL STATEMENT

FOR THE FINANCIAL YEAR 2025-26

Submitted to SPCB under Rule 14 of The Environment (Protection) Act, 1986

TATA STEEL LIMITED

FERRO ALLOYS PLANT-Athagarh

AT: Plot No Z1, IDCO IID Centre, Somnathpur Industrial Estate, Remuna, Dist : Balasore – 756019

ODISHA

ENVIRONMENTAL STATEMENTS

FORM-V

Environmental Statement for the financial year ending the 31st March 2026

PART-A

<table>
<tr><td rowspan="2">1</td><td>Name and address of the owner/ occupier of the industry, operation or process</td><td>:</td><td>Alok Kumar Panda
Head FAP Balasore
Tata Steel Limited, Balasore
Ferro Alloys Plant
Z1 IDCO IID Center, Somnathpur, Remuna, Dist :Balasore-756019</td></tr>
<tr><td>Nominated Owner</td><td>:</td><td>Sushanta Kumar Mishra
EIC FAMD,
Tata steel Limited, Bhubaneswar
Dist: Khordha, Odisha-751015

Mr T V Narendran, Managing Director & CEO,
Tata Steel Limited, PO: Jamshedpur,
Dist.: East Singhbhum, Jharkhand-831001</td></tr>
<tr><td>2</td><td>Industry Category</td><td>:</td><td>Ferrous and Nonferrous Metal Processing</td></tr>
<tr><td>3</td><td>Production capacity</td><td>:</td><td>
<table>
<tr><th>Sl. No</th><th>Product</th><th>Quantity</th></tr>
<tr><td colspan="3">Furnace-I (16.5 MVA)</td></tr>
<tr><td>1.</td><td>Silico Manganese</td><td>2,220 Metric Tonne/Month</td></tr>
<tr><td colspan="3">Furnace-II (16.5 MVA)</td></tr>
<tr><td>1.</td><td>Silico Manganese</td><td>26,645 Metric Tonne/Annum</td></tr>
<tr><td>2.</td><td>Ferro Manganese</td><td>29,500 Metric Tonne/Annum</td></tr>
<tr><td>3.</td><td>Ferro Silicon</td><td>11,400 Metric Tonne/Annum</td></tr>
<tr><td>4.</td><td>Ferro Chrome</td><td>25,000 Metric Tonne/Annum</td></tr>
</table>
</td></tr>
<tr><td>4</td><td>Year of establishment</td><td>:</td><td>2011</td></tr>
<tr><td>5</td><td>Date of last Environmental Statement submitted.</td><td>:</td><td>30th September 2025, vide letter no. FAMD/FAPBL/32/FY25 for the year 2024-25.</td></tr>
</table>

PART-B

Water and Raw Material Consumption

(i) Water Consumption: - 40340 KL (April-2025 to March- 2026) Consumed.

Process: 77.59 KLD

Cooling: 21.96 KLD

Domestic: 10.98 KLD

Name of Product	Process water consumption per unit of product output (M^3/T).	
	During the previous financial year (2024-2025)	During the current financial year (2025-2026)
1	2	3
High Carbon Ferro Manganese/Silico Manganese/Ferro Chrome/Ferro Silicon	1.22	1.011

(ii) Raw Material Consumption

SN	Name of Product	Name of Raw Material	Consumption of raw material per unit of output	
			During the previous financial year 2024-25 (T/T of Product)	During the current financial year 2025-26 (T/T of Product)
1	Silico Manganese/Ferro Manganese/ Ferro Silicon / Ferro Chrome	Manganese ore	1.77	2.26
		Coke	0.48	0.58
		Steam Coal	0.314	0.265
		Quartzite	0.367	0.266
		Dolomite	0.188	0.032
		Electrode Paste	0.017	0.017

Polluting Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries must name the raw material used.

PART-C

Discharged to environment / unit of output specified if the consent issued.

(Parameters as specified in the consent issued)

Brief description of the process producing SiMn:

During the smelting process, oxides of manganese, iron, and silicon present in the raw materials are reduced in the submerged arc furnace to produce Silico Manganese alloy. Impurities such as sulphur and phosphorus are partially transferred to the slag phase, while gaseous emissions generated during the reduction reactions are discharged through the furnace off-gas system and stack after appropriate pollution control measures. The process simultaneously produces SiMn alloy and slag as the primary by-product.

Sources of Pollution:

The sources of pollution can be in the form of:

1. Water Pollution
2. Air Pollution

1. Water Pollution:

We are treating water where chances of contamination present and the treated water is used in metal cooling, watering on plantation, dust suppression etc.

2. Air Pollution:

2 nos. 16.5 MVA Arc Furnace produces the following air pollutants which is released to atmosphere through Gas Cleaning Plant. PM, SO2, NOx.

Pollutants	Quantity of pollutants discharged (mass/day)	Concentration of pollutions in discharges (mass / volume)	Percentage of variation from prescribed standards with reasons
a) Liquid			No Effluent discharge outside plant boundary.
i) Domestic Effluent	0	0	
ii) Cooling & Other wastewater including COB Plant	0	0	
b) Emissions (PM)			Nil
i) GCP of Furnace-I & II	112.8826Kg/day	36.53 mg/Nm^3	- 26.94%

PART-D

HAZARDOUS WASTES

Hazardous Waste	Total Quantity	
	During the previous financial year (2024-2025)	During the current financial year (2025-2026)
Used Oil	2.46 KL	0.102 T
GCP Dust	2003 MT	2861.47 MT
Waste Containing oil	-	0.32 T
Discarded Contaminated Barrels	-	4 T
GCP rejected used Bag filter & Waste Cotton contaminated with oil	-	8 T

PART-E

SOLID WASTE

		Total Quantity	
		During the previous financial year	During the current financial year
(a)	From process (a) Slag	Slag- 15291.56 MT	Slag- 18123.25 MT
(b)	From pollution control facility	--	--
(c)	(1) Quantity recycled or re-utilized within the unit	--	
	(2) Sold		
	(3) Disposed		

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.

A. Hazardous Waste- Used oil stored (Sold to authorized recycler).

Solid Waste- Slag (Sold to registered vendor for utilization in construction)

B. Characteristics (in terms of concentration and quantum) of solid waste

The Silico Manganese slag generated during the smelting process is in lumpy form and is stored in a designated dump yard within the plant premises. The slag is managed in an environmentally sound manner and is subsequently utilized or sold for approved applications such as construction, road making, and other beneficial uses, as per applicable guidelines.

Characteristics of Silico Manganese Slag	
Parameter	**Result (in %)**
MnO	15-25
SiO_2	25-35
CaO	15-25
Al_2O_3	8-15
MgO	3-10
FeO	1-5

The slag is stored in a designated area within our plant premises and is subsequently sold for utilization in construction and other approved applications.

Disposal practice:

Slag: -

Both the furnace produce SiMn as a by – product. The slag is mostly utilized for road construction & development and the rest is being stored at earmarked location in inside the factory premises.

GCP dust: -

Individual GCPs have been provided to Furnace I & II. Each GCP consists of gas cooler (air to air heat exchanger) and pulse jet bag filter with duct and ID fan and discharged through a stack of adequate height. The flue gas cleaning residue is properly collected with the help of

pneumatic dust collection system provide with silo and stored on a concrete floor under shed and is used in briquette making process.

Waste oil:

The waste oil generated at various sources are collected in leak proof barrels and placed on containment trays, kept on a concrete floor with oil catch pit. It is also ensured that the caps of the barrels remain intact and in upright position. The storage building is weatherproof and provided with caution board displayed. During transfer of waste oil to barrels, a trough is placed underneath to prevent land contamination due to oil spillage then at a fixed interval, these barrels are returned to stores for final disposal through authorized preprocessor.

Used cotton including rejected Bag filters:

The used cotton waste generated at various locations is collected in designated containers and, at regular intervals, is charged into the Submerged Arc Furnace (SAF) for incineration at temperatures exceeding 1700°C. Rejected bag filters generated from the GCP system are stored at a designated location in an environmentally sound manner and are periodically handed over to M/s Re Sustainability Limited, an authorized waste management agency, for final disposal through incineration in compliance with applicable hazardous waste management regulations.

Discarded Contaminated Barrels

Discarded contaminated barrels generated from the handling and storage of hazardous materials are safely stored in a designated area with appropriate containment measures to prevent environmental contamination. At regular intervals, these barrels are disposed of through authorized recyclers having valid statutory approvals, ensuring environmentally sound recycling and compliance with applicable hazardous waste management regulations.

PART-G

In respect of the pollution abatement measures taken up on conservation of natural resources and on the cost of production.

M/s **TATA STEEL LIMITED, FERRO ALLOYS PLANT has** spearheaded the pursuit for Environmental Protection by implementing an effective environmental management system. To this effect, the Plant has undertaken the following measures: -

- Annual maintenance of both the GCPs including power consumption and GCP dust transportation
- Annual maintenance of dry fog systems including power consumption
- Misc. Contractual jobs for maintaining environmental management system like road development, drain development.
- Zero Discharge.
- Optimum land use, reuse of solid waste**.**
- 2000 numbers of forest tree sapling planted.

- Mist Canon and Water tanker deployed at site as a measure towards dust suppression.
- Full-fledged Morden Dry Gas Cleaning Plant with Air Pulse Jet Bag Filter Technology (BFT) has been installed to clean process gas generated from furnace. Bag filters are also installed at briquetting plant to control dust emission during operation.
- Final dust of GCP is collected from silo in silo bags to control fugitive emission.
- In plant control measures and, dust extraction system, fume extraction system, dry fog dust suppression system has been installed at vulnerable areas to reduce fugitive emission.
- Wastewater utilization is continuing in regular activities like metal and slag cooling, road sprinkling, will be used in jigging plant, dust suppression and gardening.
- Maintenance of tree saplings is being carried out to ensure more than 90% survival rate.
- Some parts of the internal roads are made inside the plant are made and cast house front area is also made concreted to reduce dust emission.
- Side sheeting are given on sheds like bin building and briquetting plant to control cross wind and fugitive emission.
- Four numbers of ambient air quality monitoring stations installed to monitor air quality parameters and to take corrective action in-case of deviation from prescribed standard.
- Single use plastic is not used.
- Weather monitoring station is also installed for temperature, humidity, wind speed etc.
- Steel water bottles instead of plastic water are in use to avoid plastic usage.

PART-H

Additional measures/investment proposal during 2025-26 for environment protection including abatement of pollution / prevention of pollution.

- Necessary pollution control equipment has been installed at site and steps are being taken to implement environmental protection measures.
- Bag-filters refurbishing and upgradation in the system for GCP 1&2
- Dust Suppression, Water sprinklers dedicated Mist Canon etc. are in place to control the air pollution.
- Trees have been planted at site as per the Green Belt Development Plan.
- For domestic waste septic tank and soak pit provided.
- Water spraying on roads, dumping site etc. as a measure towards dust suppression system.
- Continuing environmental monitoring as per the plan and monthly report of the same is submitted.
- Celebrating World Environment Day, World Ozone Day etc at site.

- Training on EMS to create awareness, mass meeting on shop floor are also being carried out.
- Effective solid wastes management is maintained and followed at site.
- 100% recycling of effluent water.
- Proper handling and management of Hazardous Wastes.
- CEMS has been installed in the process stack.
- One CAAQMS has been installed at site.
- RECD has been installed at the DG set.
- SO_2 and NOx Analyzer has been planned to be installed at common stack of GCP 1 & 02.

PART-I

Miscellaneous

Any other particular for improving the quality of the environment

- Water Sprinkling is being done on all the roads and areas of operation and also within the project site to control the fugitive dust emission.
- Regular monitoring of ambient air, surface water, ground water and ambient noise is being done by third party MoEFCC approved labs.
- Only PUC certified vehicles are engaged inside plant premise.
- World environment day celebrated.
- Adoption of good housekeeping practices in which proper and systematic stacking and movement of materials is ensured.
- Internal Roads and drains are modified throughout the unit.
- We have provided adequate measures for proper handling of hazardous waste in accordance with the provisions of Rules.
- We are maintaining good housekeeping throughout the plant.
- We have adopted different energy conservation measures for conserving thermal & electrical energy.
- We have carried out third party hazardous waste audit as per the guideline of Honorable Supreme Court of India.
- We have constructed garland drain around raw material yard for collection and treatment of surface runoff during monsoon period.
- Community awareness development programs on environmental protection are also undertaken through celebration of World Environment Day.
- We have undertaken extensive CSR activities like plantation program at nearby schools etc.