Letter No: TSL/FAMD/FAPA/FY26/3101 Date: 25.09.2025

The Member Secretary
State Pollution Control Board, Odisha
Paribesh Bhawan
A/118, Nilakantha Nagar, Unit-VIII
Bhubaneswar - 751 012

Subject: Submission of Environment statement of Ferro Alloys plant M/S Tata Steel limited, Athagarh for the year ending 31st March 2025.

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 2024 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.

Thanking You,
Yours Truly,
For Tata Steel Limited

Head, Ferro Alloys Plant
Athagarh, Cuttack
Tata Steel Limited

(Sarbeswar Nayak)
Plant Head & Factory Manager
Ferro Chrome Plant, Athagarh
CC to: Regional Officer, State Pollution Control Board, Cuttack
Encl: as above.

ENVIRONMENTAL STATEMENT

FOR THE FINANCIAL YEAR 2024-25

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

TATA STEEL LIMITED

FERRO ALLOYS PLANT-Athagarh

AT: Anantpur, P.O : Dhurusia, Athagarh, Dist : Cuttack – 754029

ODISHA

ENVIRONMENTAL STATEMENTS

FORM-V

Environmental Statement for the financial year ending the 31st March 2025

PART-A

1	Name and address of the owner/ occupier of the industry, operation or process	:	Sarbeswar Nayak Head FAP Athagarh, Tata Steel Limited, Athagarh Anantapur Dhurusia Athagarh Cuttack, Odisha-754027
	Nominated Owner	:	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
2	Industry Category	:	Ferrous and Nonferrous Metal Processing
3	Production capacity	:	High Carbon Ferro Chrome/High Carbon Silico Manganese/High Carbon Silico Manganese/High Carbon Ferro Manganese Manganese: 59,400 TPA
4	Year of establishment	:	2004
5	Date of last Environmental Statement submitted.	:	23rd July 2024, vide letter no. TSL/FAMD/FAPA/FY25/1112 for the year 2023-24.

PART-B

Water and Raw Material Consumption

(i) Water Consumption:- 186677 KL (April-2024 to March- 2025) Consumed.

Process : 358 KLD

Cooling : 102.28 KLD

Domestic : 51.1 KLD

Name of Product	Process water consumption per unit of product output (M^3/T).	
	During the previous financial year(2023-2024)	During the current financial year(2024-2025)
1	2	3
High Carbon Ferro Chrome/High Carbon Silico Manganese/High Carbon Silico Manganese/High Carbon Ferro Manganese Manganese: 59,400 TPA	3.58	3.65

(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 2023-24 (T/T of Product)	During the current financial year 2024-25 (T/T of Product)
1	High Carbon Ferro Chrome/High Carbon Silico Manganese/High Carbon Silico Manganese/High Carbon Ferro Manganese Manganese: 59,400 TPA	Chrome Ore Fines	2.20	2.60
		Chrome ore lumps	0.0096	1.84
		Coke	0.506	0.48
		Quartzite	0.005	0.106
		Dolomite	0.00	0.006
		Electrode Paste	0.0124	0.012
		Molasses	0.128	0.110
		Lime	0.09	0.110

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 FeCr:
During the smelting process; oxides of Chromium, Iron, Silicon, Sulphur and Phosphorous are reduced. The Sulphur goes into the Slag and also escapes to the atmosphere through the stack as SO2.

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 Hexavalent chromium contamination present through ETP and the treated water is used in metal cooling, watering on plantation, dust suppression etc.

2. Air Pollution:

4nos. 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	216.57 Kg/day	37.6 mg/Nm^3	- 62.4%
ii) GCP of Furnace-II	224.23 Kg/day	38.9 mg/Nm^3	- 61.1%

PART-D

HAZARDOUS WASTES

Hazardous Waste	Total Quantity (Kg)	
	During the previous financial year (2023-2024)	During the current financial year (2024-2025)
Used Oil	0.840 KL	4.8 KL
GCP Dust	797.65 MT	736.97

PART-E

SOLID WASTE

		Total Quantity	
		During the previous financial year	During the current financial year
(a)	From process (a) Slag	Slag-49142.97 MT	Slag- 39660.19 MT
(b)	From pollution control facility	--	--
(c)	(1) Quantity recycled or re-utilized within the unit	--	
	(2) Sold	None	None
	(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)

Fine Dust-Used in Briquette Plant.

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

Ferro chrome slag which is in lumpy form dumped in dump yard designated inside plant premises.

Characteristics of Ferro Chrome Slag	
Parameter	**Result (in %)**
Cr_2O_3	10-13
SiO_2	27-30
MgO	25-27
FeO	3-5
Al_2O_3	22-25
CaO	5-7

The slag is dumped for back filing with-in our premises.

Disposal practice:

Slag:-

All the four furnaces produce Cr2O3 slag 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 weather proof 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 wastes:

The used cotton wastes generated at various locations are kept in designated barrels and at a

fixed interval; these wastes are handed over to the Shift In-charge of the Furnace Section for incinerating in the Electric Arc Furnace at a temperature of more than 1700 degree C.

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**.**
- 1000 numbers of forest tree sapling planted.
- Mist Canon and Water tanker deployed at site as a measure towards dust suppression.
- Full-fledged Modern Dry Gas Cleaning Plant with Air Pulse Jet Bag Filter Technology (BFT) has been installed to clean process gas generated from furnace. Bag filters will also be 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 and the chrome dust is again reused 100% for briquette making.
- 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.
- Waste water 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.
- All internal roads inside the plant are made concrete 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 s are in use to avoid plastic usage.

- LPG is planned to be used used in briquette plant as a replacement of FO to reduce the carbon foot print.

PART-H

Additional measures/investment proposal during 2024-25 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. An operational environment expenditure of rupees 28 Crores towards various projects for FY 2024-25 has been spent as below:
- Bag-filters refurbishing and updation in the system for GCP 1&2
- One new installation of 20 TPH metal recovery plant for processing of High carbon ferro chrome slag installation work is under progress of Rs 33 crore of Build on operate basis (BOO).
- Dust Suppression, Water sprinklers dedicated Mist Canon etc. are in place to control the air pollution.
- One STP of 10KLD installed and made operational.
- DE System is being installed in Briquette plant all discharge points to control the fugitive emissions.
- 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 haulage 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 all process stack.

PART-I

Miscellaneous

Any other particular for improving the quality of the environment protection and abatement of pollution

- 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 MoEF 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.
- ETP and STP installed to treat domestic and industrial wastewater.
- New GCP with Bag filter model is installed at Briquette plant for dust suppression and improvement in air quality.
- 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.