Ref.No.: TSL/FAMD/FAPJ/FY26/3110 Date. 26/09/2025

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

Sub:- **Environmental Statement of FAP Jajpur, M/s Tata Steel Limited for the FY 2024- 2025**

Ref:- Under Rule-14 of The Environment (Protection) Rules 1986

Dear Sir,

Kindly find the attach here with Environment Statement in the prescribed format (Form-V) as per Environment (Protection) Amendment Rules 1992 of our FAP Jajpur for your kind perusal.

Thanking You

Yours Faithfully
For Tata Steel Limited.

Alok Kumar Panda
Head Ferro Alloys Plant,Jajpur
TATA STEEL LTD.
IDC,P.O.-Manatira,Via-Danagadi
Jajpur-755026,Odisha
26/09/25

State Pollution Control Board (Odisha) RECEIVED No. 5 Date 26/09/25 Regional Office

Alok Kumar Panda
Plant Head & Factory Manager
Ferro Alloys Plant, Jajpur

Cc: Regional Officer, State Pollution Control Board, Kalinganagar, Jajpur

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-JAJPUR

KALINGANAGAR INDUSTRIAL COMPLEX, DUBURI, DIST-JAJPUR-755026, 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	:	Alok Kumar Panda Head FAP Jajpur, Tata Steel Limited, Jajpur Dist: Jajpur, Odisha-755026
	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	:	Charge Chrome/ Silico Manganese/Ferro Manganese: 1,00,000 TPA
4	Year of establishment	:	2006
5	Date of last Environmental Statement submitted.	:	28th September 2024, vide letter no. TSL/FAMD/FAPJ/FY25/1405 for the year 2023-24.

PART-B

Water and Raw Material Consumption

(i) Water Consumption:- 159424 KL (April-2024 to March- 2025) Consumed.

Process : 305.7 KLD

Cooling : 87.35 KLD

Domestic : 43.68 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
Charge Chrome/ Silico Manganese/Ferro Manganese (4x16.5MVA) furnace No-I, II, III & IV-1,00,000 TPA	2.15	3.52

(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	Charge Chrome/ Silico Manganese/Ferro Manganese (4x16.5MVA) furnace No-I, II, III & IV-1,00,000 TPA	Chrome Ore	2.18	2.25
		Coke	0.508	0.514
		Quartzite	0.148	0.073
		Magnesite	0.061	0.001
		Molasses	0.162	0.164
		Lime	0.095	0.116
		Carbon Paste	0.012	0.014

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 & II	129.31 Kg/day	50.83 mg/Nm^3	
ii) GCP of Furnace-III & IV	126.05 Kg/day	50.50 mg/Nm^3	

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	6.6 KL	4.8 KL
GCP Dust	766.76 MT	1157.262 MT

PART-E

SOLID WASTE

		Total Quantity	
		During the previous financial year	During the current financial year
(a)	From process (a) Slag	Slag-54541.92 MT	Slag- 40853.92 MT
(b)	From pollution control facility	--	--
(c)	(1) Quantity recycled or re-utilized within the unit	--	
	(2) Sold	--	32535.6 MT
	(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 Cr_2O_3 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 , Furnace III & IV. 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 reprocessor.

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**.**
- 5500 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 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.

- Five 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.
- CNG is now being used in briquette plant as a replacement of FO to reduce the carbon footprint.

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 15 Crores towards various projects for FY 2024-25 has been spent as below:
- Bag-filters refurbishing and updating in the system for GCP 1&2 & GCP 3&4.
- Completely replaced the wet scrubber system to bag filter and dedusting system of around 40 numbers across the conveyor points in Briquette plant.
- Dust Suppression, Water sprinklers dedicated Mist Canon etc. are in place to control the air pollution.
- ETP of 33 cum/day worth of rupees 4 crores has been installed with 24*7 operation.
- Two STP of 10KLD installed and made operational, value of approx. rupees 33 Lakhs.
- Rainwater harvesting ponds have been constructed at site to conserve and re-use the rainwater post necessary treatment.
- Completely refurbished & maintained the dryer system to control the dust generation in Briquette plant.
- 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.
- Phase wise installation of LED lights in place of MH/HPSV lights for energy conservation.
- 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.

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