



Ref. No: TSG/EMD/ES/FY'25

05.09.2025

To,
The Member Secretary,
Jharkhand State Pollution Control Board,
Town Administration Building,
HEC Campus, PO - Dhurwa
Ranchi - 834004 (Jharkhand)

Subject: Submission of Environmental Statement report for the financial year 2024-25 for Main Plant - 1, Main Plant - 2, Oxygen Plant, SBWM - 1 & 2 of Tata Steel Limited, Gamharia, located at Adityapur Industrial Area, PO. - Gamharia, District - Saraikela - Kharsawan

Ref: CTO vide letter no:

1. JSPCB/HO/RNC/CTO-20530882/2025/605 dated 27-03-2025
2. JSPCB/HO/RNC/CTO-19855975/2024/1990 dated 25-12-2024
3. JSPCB/HO/RNC/CTO-18478214/2024/810 dated 07-05-2024
4. JSPCB/HO/RNC/CTO-20606861/2025/1712 dated 24-06-2025
5. JSPCB/HO/RNC/CTO-18235930/2024/623 dated 05-04-2024


Sir,

This has reference to above captioned subject and cited reference. We are herewith submitting Environmental Statement Report for the financial year 2024-25 in form-V as a part of compliances to the conditions of the above-mentioned consent to operate letter.

This is for your information and necessary records please.

Thanking you,

For Tata Steel Limited, Gamharia


05.09.2025
Ravi Ranjan Prasoon
Head - Environment

Encl: Form-V duly filled and signed.

Cc: 1. The Regional Officer, JSPCB, Jamshedpur
2. The Regional Officer, MoEF & CC, Ranchi

TATA STEEL LIMITED

Tata Steel Gamharia Seraikela Kharsawan Jamshedpur 832 108 India
Tel 065771 02349

Registered Office Bombay House 24 Homi Mody Street Fort Mumbai 400 001 India
Tel 91 22 6665 8282 Website www.tatasteel.com
Corporate Identity Number L27100MH1907PLC000260

Environment Audit Statement
FORM – V
(See rule 14 of The Environment Protection Act, 1986)
Environmental Audit Report for the financial year ending the 31st March 2025.

PART – A		
General Information		
1.	Name & Address of the owner/occupier of the industry, operation or process	TV Narendran CEO & MD Tata Steel Limited, Gamharia (Main Plant-1 & Main Plant-2) Adityapur Industrial Area, Dist: Saraikela-Kharsawan, Jharkhand- 831001
2.	Industry Category Primary (STC Code), Secondary (STC Code)	Red
3.	Production capacity-Units	Installed capacity - Integrated Steel Plant- 1.2 MTPA
4.	Year of establishment	1974 and 2004
5.	Date of last statement	24.09.2024

PART – B		
Water & Raw material Consumption		
B-1 : Total Water Consumption (m³/d)		
	Total Water Consumption (m³/d)	
Category	During the current financial year	
Process (m³/d)	518	
Cooling (m³/d)	13883	
Domestic (m³/d)	346	
B-2 : Water Consumption per unit of the product (m³/MT)		
Name of the Products	Process Water Consumption per unit of product (m³/MT)	
	During the previous financial year	During the current financial year
1. Crude Steel	1.193	1.268
2. Hot Metal	0.697	0.801
3. Wire Rod & RCS	0.852	1.085
4. DRI	0.951	0.721
5. Power	4.76 KL/MWH	3.83 KL/MWH
6. Sinter	0.106	0.103
7. Pellet	Majorly treated water from ETP and partially (0.75) fresh water is being used	Majorly treated water from ETP and partially (0.071) fresh water is being used
8. Coke	Nil. (No fresh water. Only treated water from ETP is being used)	Nil. (No fresh water. Only treated water from ETP is being used)
B-3 : Raw Material Consumption		
Name of Raw materials	Name of	Raw material Consumption per unit of

	Products	product (MT/MT)	
		During the previous financial year	During the current financial year
1. MBF	Hot Metal		
Iron Ore (Lump)		0.521	0.367
Sinter		0.929	1.054
Quartzite		0.051	0.038
Coke (Net and Nut coke)		0.476	0.491
PCI Coal		0.116	0.095
Pellet		0.182	0.192
2. SMS	Crude steel		
Hot metal /Pig Iron		0.786	0.770
Sponge Iron		0.356	0.378
3.WRM	Wire Rod		
Billet		1.027	1.026
4. Blooming Mill	Bloom		
Billet/Bloom		1.026	1.040
5. DRI	DRI		
Iron Ore		1.693	1.649
Coal		0.886	0.805
Pellet		Nil	0.015
6. Sinter	Sinter		
Iron Ore Fines		0.885	0.844
Coke Fines		0.081	0.080
Coal		0.006	Nil
Limestone		0.115	0.107
Burnt Lime		0.026	0.029
Crude Dolomite		0.151	0.128
7.Captive Power Plant	Electricity		
Coal		1.071	0.822
8. Pellet Plant	Pellet		
Iron Ore		1.121	1.079
Coal		0.050	0.042
Limestone		0.018	0.020
Bentonite		0.009	0.007
9. Coke Oven Plant	Coke		
Coking Coal		1.454	1.466
PCI		0.002	Nil

PART – C					
Pollution discharged to Environment per unit of Output					
(Parameters as specified in the Consent issued)					
C-1 : Water Pollution					
Pollutant Parameter	Prescribed Standard	Quantity discharge	Concentration discharge (mg/l)	Percentage of variation from prescribed standards with reasons	
		(kg/d)			
-	-	Nil	Nil		-

It is to be noted that Zero Effluent Discharge (ZED) is maintained except rainy season. We have achieved Zero Effluent Discharge (ZED) by installing ETP (7200 KLD) / STP (250 KLD) for proper treatment of effluent and complete recycling back to process for reuse.

C-2 : Air Pollution

Pollutant Parameter	Stack No. / Name	Quantity discharge	Concentration discharge (mg/Nm ³)	Percentage (%) of variation from prescribed standards with reasons	
		(kg/day)			
Stack emission (Particulate matter)	WHRB - 1 (DRI-1) & 40 TPH	141	37	-63	The result is negative, it means the measured value is within the prescribed standard.
	WHRB - 2 & 3 (DRI-2&3)	126	36	-64	
	WHRB - 4 & 5 (DRI-4&5)	129	34	-66	
	25 MW CPP	413	65	-35	
	30 MW CPP	140	25	-75	
	Coke Oven WHRB - 1	79	21	-58	
	Coke Oven WHRB - 2	76	22	-56	
	MBF - 1 stove	8	6	-94	
	MBF - 1 Cast House	35	22	-78	
	MBF - 1 Stock House	14	20	-80	
	MBF - 1 Ground Hopper	12	19	-81	
	MBF - 2 stove	33	18	-82	
	MBF - 2 Cast House	94	22	-78	
	MBF - 2 Stock House	65	21	-79	
	MBF - 2 PCI	17	22	-78	
	MBF - 2 RMHS	18	21	-79	
	SMS - 1 & 2	256	25	-75	
	SMS - 3	255	23	-77	
	Pellet Plant	341	24	-52	
	Blooming Mill	31	26	-74	
	Wire Rod Mill	20	26	-74	
	Sinter Process	675	52	-48	
	Sinter De-dusting	204	27	-73	

PART – D

Hazardous Wastes

(As specified under The Hazardous Waste Management, Handling & Transboundary Movement Rules, 2016)

D-1 : Generation from Process

Name	Total Quantity (MT/KL)	
	During the previous financial year	During the current financial year
Wastes or residues containing oil (Schedule – I; Cat.: 5.2)	-	28.28 MT
Discarded asbestos (Schedule – I; Cat.: 15.2)	-	Nil
Process wastes, residues and sludges (Discarded Paint) (Schedule – I; Cat.: 21.1)	-	Nil
Spent solvents (Schedule – I; Cat.: 21.2)	-	Nil
Empty barrels/containers/liners contaminated with hazardous chemicals / wastes (Schedule – I; Cat. : 33.1)	480 Nos	15.2 MT

Contaminated cotton rags or other cleaning materials (Schedule – I; Cat.: 33.2)	13.93 MT	26.94 MT
Exhaust Air or Gas cleaning residue (Schedule – I; Cat.: 35.1)	-	15396.8 MT
Chromium sludge from cooling water (Schedule – I; Cat.: 35.5)	-	Nil
Spent ion exchange resin containing toxic metals (Schedule – I; Cat. : 35.2)	-	Nil
Used Glass Wool or insulation Material (Schedule – II; Class: C)	-	21.04 MT
Waste Chemicals (Schedule – II; Class: C)	-	Nil
Insulated copper wire scrap or copper with pvc sheathing (Schedule – II; Class: C)	-	Nil
Used Spent oil (Schedule – I; Cat.: 5.1)	70.16 MT	88.24 MT
Organic residues (Schedule: 1; Category: 1.4)	-	Nil
Tar storage tank residue (Schedule: 1; Category: 13.5)	-	Nil
Chemical sludge from wastewater treatment (Schedule: 1; Category: 35.3)	-	Nil
Chromium sludge from cooling water (Schedule: 1; Category: 35.5)	-	Nil

D-2 : Generation from Pollution Control Facilities

Name	Total Quantity	
	During the previous financial year	During the current financial year
-	Nil	Nil

PART – E

Solid Wastes

E-1 : Generation from Process

Name	Total Quantity (MT)	
	During the previous financial year	During the current financial year
1. Granulated BF Slag	257089	214385
2. Mills Scale	6885	6572
3. Electric Arc Furnace Slag	207737	174844
4. Char (DRI)	81797	89133
5. Wet Scrapper Sludge (DRI)	14014	11125
6. Bed Ash	24124	19573
7. Producer Gas Ash	2899	3311

E-2 : Generation from Pollution Control Facilities

Name	Total Quantity (MT)	
	During the previous financial year	During the current financial year
1. Air Pollution Control Device dust/residue of SMS	12029	8867
2. Flue Dust from MBF	6246	6530
3. Fly Ash	137389	123082
4. WHRB Ash	133226	122533
5. DRI DE Dust	23210	25095

E-3: Quantity Recycled / Reutilized /sold

Name	Total Quantity (MT)	
	During the previous financial year	During the current financial year
1. Air Pollution Control Device dust/residue of SMS	10566	7999
2. Flue Dust from MBF	5899	7147
3. Char DRI	81624	88727
4. Fly Ash	111838	180474
5. Bed Ash	30382	19438
6. DRI DE Dust	23858	22844
7. Electric Arc Furnace Slag	275753	244905
8. Granulated BF Slag	257592	215347
9. Producer Gas Ash	3479	3708
10. Wet Scraper Sludge (DRI)	15292	9982
11. WHRB - Ash	150817	121719
12. Mill Scale	6885	7806

Reutilized and reuse, sold and disposal: Dust from the FES of SMS and the GCP of MBF is utilized in sinter making at the sinter plant. Char is partly sold to an external party and partly used in the power plant. Fly ash and bed ash are primarily used in brick making, cement manufacturing, and land development activities. Mill scale is also partially utilized in the sinter plant. Metallica recovered from SMS slag are recycled within the SMS, while non-metallic slag is used for land development and road construction. Granulated slag generated from the BF is fully utilized in cement manufacturing. PG ash and WHRB ash are used in land development processes.


PART – F		
Please specify the characterizations (in terms of composition in quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both this categories of wastes		
F-1 : Hazardous Wastes		
Description	Composition	Method of disposal
Wastes or residues containing oil (Schedule – I; Cat.: 5.2)	Polycyclic aromatic hydrocarbon	Recycled or reprocessed through authorized recycler approved by JSPCB.
Used Spent oil (Schedule – I; Cat.: 5.1)		
F-2 : Solid Wastes		
Description	Composition	Method of disposal
Air Pollution Control Device dust/residue of SMS	Fe, SiO ₂ , Al ₂ O ₃ , CaO, MgO	In-house utilization in sinter making
Flue Dust from MBF	FeO, Fe, Cao, SiO ₂	In-house utilization in sinter making
Char DRI	Ash (SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ , CaO, MgO), Volatile Matter, Fixed Carbon	Sold outside, used in captive power plant
Fly Ash	SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ , CaO, MgO	Used in Brick making and cement manufacturing process and low land development
Bed Ash		Filling of lowland area
WHRB Ash		
DRI DE Dust	CaO, SiO ₂	Sold to the outside vendor
Electric Arc Furnace Slag	FeO, Fe, Cao, SiO ₂	Metallics recovered from slag are recycled within the SMS, while non-metallic slag is used for land development and road construction.

Granulated Slag of MBF	CaO, SiO ₂ , Al ₂ O ₃ , MgO	Sold to outside vendor for Cement Making Processes
Producer Gas Ash	Fixed Carbon	Filling of lowland area
Wet Scraper Sludge (DRI)	Fixed Carbon, Fe	Sold to the outside vendor
Mill Scale of Mills	Mostly Fe (t)	In-house utilization in sinter making

PART – G
Impact of pollution control measure taken on conservation of natural resources and cost of production
<ol style="list-style-type: none"> 1. Pollution control equipment like Bag filters, gas cleaning plants at MBF have been installed to control emissions. Generated Flue dusts are reused at sinter plant for sinter making. 2. Separate Fume extraction system (FES) are provided at SMS 1,2 and 3. Collected FES dusts are reused at sinter plant. 3. Water flow meters have been installed to monitor water consumption. 4. ESP is provided at waste heat recovery boiler of DRI for control of particulate emission. 5. ESP is provided at coal based CPP for control of particulate emission. 6. ESP and bag filters are provided at sinter plant and pellet plant to collect dusts which are reused in the process. 7. Treatment of Industrial wastewater in the effluent treatment plant (ETP) and recycling the treated effluent back into process cooling, slag cooling, dust suppression, green belt development etc. 8. Installation of online CAAQMS, CEMS and EQMS for monitoring of ambient air, stack emission and treated effluent and their Data transmission to statutory bodies on real time basis.

PART – H
Additional measures / investment proposal for environmental protection including abatement of pollution, prevention of pollution
<p>Several projects were undertaken in the last year under the operating / capex budget of departments. The major activities include - Refurbishment of Air pollution control systems, installation of new APCD to control the fugitive emission. The major work undertaken for fugitive emission control include:</p> <ol style="list-style-type: none"> 1. Installation of 13 Mist Beams at Railway siding. 2. Installation of new bag filters at raw material circuit at MBF-2, Sinter Plant, SMS & Coke Oven Plant 3. Revamping of all the 8 fields of process electrostatic precipitator by installation of advanced controller at Pellet Plant 4. Stabilization of open ash dump yard into Green biodiversity park 5. Plantation of 16000 saplings of varied species 6. Construction of covered shed for coal storage at Coke Oven, DRI, CPP, MBF- 2 area

PART – I
Any other particulars undertaken for improving the quality of environment
Celebration of Tata Sustainable month and different campaign for creating awareness among employees.


 05.09.2025
 Ravi Ranjan Prasoon
 Head - Environment
For Tata Steel Limited, Gamharia

Environment Audit Statement

FORM – V

(See rule 14 of The Environment Protection Act, 1986)

Environmental Audit Report for the financial year ending the 31st March 2025.

PART – A		
General Information		
1.	Name & Address of the owner/occupier of the industry, operation or process	TV Narendran CEO & MD Tata Steel Limited, Gamharia (Oxygen Plant) Adityapur Industrial Area, Dist: Saraikela- Kharsawan, Jharkhand- 831001
2.	Industry Category Primary (STC Code), Secondary (STC Code)	Green
3.	Production capacity-Units	Installed capacity- Oxygen Plant- 220 TPD
4.	Year of establishment	2008
5.	Date of last statement	24.09.2024

PART – B			
Water & Raw material Consumption			
B-1 : Total Water Consumption (m³/d)			
		Total Water Consumption (m³/d)	
Category		During the current financial year	
Process (m³/d)		127	
Cooling (m³/d)			
Domestic(m³/d)			
B-2 : Water Consumption per unit of the product (m³/MT)			
Name of the Products		Process Water Consumption per unit of product (m³/MT)	
		During the previous financial year	During the current financial year
1. Oxygen (Gaseous and Liquid)		0.58	0.39
B-3 : Raw Material Consumption			
Name of Raw materials	Name of Products	Raw material Consumption per unit of product (MT/MT)	
		During the previous financial year	During the current financial year
1. Oxygen Plant			
Air	Oxygen	5.0	5.0

PART – C				
Pollution discharged to Environment per unit of Output (Parameters as specified in the Consent issued)				
C-1 : Water Pollution				
Pollutant Parameter	Prescribed Standard	Quantity discharge (kg/d)	Concentration discharge (mg/l)	Percentage of variation from prescribed standards with reasons
-	-	Nil	Nil	-
It is to be noted that Zero Effluent Discharge (ZED) is maintained.				
C-2 : Air Pollution				
Pollutant Parameter	Stack No. / Name	Quantity discharge (kg/day)	Concentration discharge (mg/Nm ³)	Percentage of variation from prescribed standards with reasons
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

PART – D		
Hazardous Wastes (As specified under The Hazardous Waste Management, Handling & Transboundary Movement Rules, 2016)		
D-1 : Generation from Process		
Name	Total Quantity (MT/KL)	
	During the previous financial year	During the current financial year
Used Oil/ Spent Oil (Schedule – 1; Cat. – 5.1)	Nil	Nil
Wastes / residues containing oil (Schedule – 1; Cat. - 5.2)	Nil	Nil
Tar storage tank Residue (Schedule – 1; Cat. - 13.5)	Nil	Nil
Process wastes, residues & sludges (Schedule – 1; Cat. - 21.1)	Nil	Nil
Discarded containers / barrels / liners contaminated with hazardous wastes / chemicals (Schedule – 1; Cat. - 33.1)	Nil	Nil
Spent ion exchange resin containing toxic metal (Schedule – 1; Cat. - 35.2)	Nil	Nil
D-2 : Generation from Pollution Control Facilities		
Name	Total Quantity	
	During the previous financial year	During the current financial year
	Nil	Nil

PART – E	
Solid Wastes	
E-1 : Generation from Process	
Name	Total Quantity (MT)


	During the previous financial year	During the current financial year
Not Applicable	Not Applicable	Not Applicable
E-2 : Generation from Pollution Control Facilities		
Name	Total Quantity (MT)	
	During the previous financial year	During the current financial year
Not Applicable	Not Applicable	Not Applicable
E-3 : Quantity Recycled/Reutilized /sold		
Name	Total Quantity (MT)	
	During the previous financial year	During the current financial year
Not Applicable	Not Applicable	Not Applicable

PART – F		
Please specify the characterizations (in terms of composition in quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both this categories of wastes		
F-1: Hazardous Wastes		
Description	Composition	Method of disposal
Used Oil / Waste Oil	Polycyclic aromatic hydrocarbon	Disposal to Authorized Recycler approved by JSPCB
F-2: Solid Wastes		
Description	Composition	Method of disposal
Not Applicable	Not Applicable	Not Applicable

PART – G
Impact of pollution control measure taken on conservation of natural resources and cost of production
Oxygen plant is a non-polluting unit in which Oxygen is separated from atmospheric air

PART – H
Additional measures/investment proposal for environmental protection including abatement of pollution, prevention of pollution
No significant pollution from Oxygen plant

PART – I
Any other particulars undertaken for improving the quality of environment
None


 05.09.2025
 Ravi Ranjan Prasoon
 Head - Environment

For Tata Steel Limited, Gamharia

Environment Audit Statement

FORM – V

(See rule 14 of The Environment Protection Act, 1986)

Environmental Audit Report for the financial year ending the 31st March 2025.

PART – A		
General Information		
1.	Name & Address of the owner/occupier of the industry, operation or process	TV Narendran CEO & MD Tata Steel Limited, Gamharia Straight Bar & Wire Mill Division, Unit-1 & 2 Phase-IV, Adityapur industrial Area, Gamharia, Dist- Saraikela Kharsawan, Jharkhand, India
2.	Industry Category Primary (STC Code), Secondary (STC Code)	Orange
3.	Production capacity-Units	SBWM – I : 425 MT/Day & SBWM – II : 2400 MT/month
4.	Year of establishment	SBWM – I : 1978 & SBWM – II : 1982
5.	Date of last statement	24.09.2024

PART – B			
Water & Raw material Consumption			
B-1 : Total Water Consumption (m³/d)			
		Total Water Consumption (m³/d)	
Category		During the current financial year	
Process (m³/d)		44	
Cooling (m³/d)			
Domestic (m³/d)			
B-2 : Water Consumption per unit of the product (m³/MT)			
Name of the Products		Process Water Consumption per unit of product (m³/MT)	
		During the previous financial year	During the current financial year
Straight Bar of SBWM – 1		0.215	0.127
Wire of SBWM - 2		0.376	0.250
B-3 : Raw Material Consumption			
Name of Raw materials	Name of Products	Raw material Consumption per unit of product (MT/MT)	
		During the previous financial year	During the current financial year
Billet for SBWM – 1	Straight Bar	1.04	1.04
Steel Wire Rod for SBWM – 2	Wires	1.01	1.01

PART – C				
Pollution discharged to Environment per unit of Output				
(Parameters as specified in the Consent issued)				
C-1 : Water Pollution				
Pollutant Parameter	Quantity discharge	Concentration discharge (mg/l)	Percentage of variation from prescribed standards with reasons	
	(kg/d)			
-	Nil	Nil	-	
It is to be noted that since we are maintaining Zero Effluent Discharge (ZED) of hence the above discharge load is also zero.				
Pollutant Parameter	Quantity discharge	Concentration discharge (mg/Nm³)	Percentage of variation from prescribed standards with reasons	
	(kg/d)			
Stack emission	17.24	21.9	-78.1	The result is negative, it means the measured value is within the prescribed standard.

PART – D		
Hazardous Wastes		
(As specified under The Hazardous Waste Management, Handling & Transboundary Movement Rules, 2016)		
D-1 : Generation from Process		
Name	Total Quantity (MT/KL)	
	During the previous financial year	During the current financial year
Used Oil / Spent Oil (Schedule – 1; Cat. - 5.1)	4.48 MT	1.38 MT
Waste or Residue Containing Oil (cotton Waste) (Schedule - 1; Cat. - 5.2)	0.143 MT	0.165 MT
Waste cutting oils (Schedule – 1; Cat. - 5.3)	-	Nil
Acidic and alkaline residues (Schedule – 1; Cat.: 12.1)	2150.14 MT	2192.25 MT
Spent pickling liquor (Schedule – 1; Cat. - 13.1)	135.07 MT	188.33 MT
D-2 : Generation from Pollution Control Facilities		
Name	Total Quantity (MT/KL)	
	During the previous financial year	During the current financial year
-	N/A	N/A

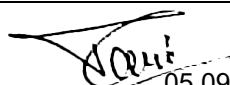
PART – E		
Solid Wastes		
E-1 : Generation from Process		
Name	Total Quantity (MT)	
	During the previous financial year	During the current financial year
Mill Scale	1745	1911
Reutilized and reuse, sold and disposal: Mill scale is being used in-house at sinter plant and partially sold to outside vendors.		

PART – F		
Please specify the characterizations (in terms of composition in quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both this categories of wastes		
F-1 : Hazardous Wastes		
Description	Composition	Method of disposal
Used Oil / Spent Oil (Schedule – 1; Cat. - 5.1)	Poly aromatic hydrocarbon	Recycled or reprocessed through authorized recycler approved by JSPCB.
Acidic and alkaline residues (Schedule – 1; Cat.: 12.1)	HCl	Disposal to Authorized Recycler approved by JSPCB
Spent pickling liquor (Schedule – 1; Cat. - 13.1)	HCl	

PART – G
Impact of pollution control measure taken on conservation of natural resources and cost of production
Water sprinkles are installed to control the fugitive emission during vehicle movement

PART – H
Additional measures/investment proposal (future plan) for environmental protection including abatement of pollution, prevention of pollution
None

PART – I
Any other particulars undertaken for improving the quality of environment
Enhancing green coverage by creating gardens and undertaking mass tree plantation in and around the plant.


 05.09.2025
 Ravi Ranjan Prasoon
 Head - Environment
For Tata Steel Limited, Gamharia