EMD/C-23/169 /22
September 22, 2022

Member Secretary
Jharkhand State Pollution Control Board
T.A. Division Building
HEC Campus, Dhurwa
RANCHI- 834 004

Subject: Submission of Environmental Statement 2021-2022 Cold Rolling Mill Complex at Bara of Tata Steel Limited, Jamshedpur

Dear Sir,

This has reference to captioned subject that we are submitting herewith the "**Environmental Statement**" for Cold Rolling Mill Complex at Bara of Tata Steel Limited, Jamshedpur for the year 2021-2022 duly filled in the prescribed format for your kind consideration.

We trust you will find the report in order.

Thanking you

Yours faithfully,
For Tata Steel Limited

Anoop Srivastava

Anoop Srivastava
Head Environment Monitoring, Testing & Analysis (TSJ)

Enclosures as above

Copy to: Regional Officer, Jharkhand State Pollution Control Board, Jamshedpur

ENVIRONMENTAL STATEMENT FOR THE YEAR 2021-2022

Cold Rolling Mill Complex, Bara
TATA STEEL LIMITED

Submitted by:
ENVIRONMENTAL MANAGEMENT DEPARTMENT
TATA STEEL LIMITED
JAMSHEDPUR-831001
JHARKHAND

[Form V]

Environmental Statement for the financial year ending 31/03/2022

PART-A

(i)	**Name & address of the owner/occupier of the industry operation or process:**	Mr. T.V. Narendran CEO & MD Tata Steel Limited Jamshedpur-831001 East Singhbhum, Jharkhand
(ii)	**Industry Code**	3316
	Primary STC Code:	Metallurgical industry
	Secondary SIC Code	Cold rolling of flat strip
(iii)	**Production Capacity**	0.8 MTPA
(iv)	**Year of Establishment**	2011
(v)	**Date of last Environment Statement submitted**	September 22, 2021 vide letter no. EMD/C-23/248/21

PART-B
WATER & RAW MATERIAL CONSUMPTION

i) Water Consumption m3/day

Water Consumption	During the previous Financial year (2020-21)	During the Current Financial year (2021-22)
Process	1192 m3 / Day	1402 m3 / Day
Cooling		
Domestic Consumption (As drinking water supplied to township)	201 m3 / Day	193 m3 / Day

ii) Specific water consumption (m3/t)

Name of the product	**Process water consumption/unit of product output**	
	During the previous Financial year (2020-21)	During the Current Financial year (2021-22)
Full Hard Cold Rolled Coils, HR Pickled Coils and Hot rolled pickled and skin passed coils	0.85 m3/T	0.78 m3/T

iii) Raw Material Consumption:

Name of raw material	**Name of the products**	**Consumption of raw material per unit of output (kg/tons of Output Product)**	
		During the previous Financial year (2020-21)	During the Current Financial year (2021-22)
Hot rolled coil	1. Full Hard Cold Rolled Coils, 2. HR Pickled Coils and 3. Hot rolled pickled and skin passed coils	1036	1020
Hydrochloric acid (32% Industrial Grade)		2.58	2.95

PART-C

Pollution Discharged to Environment/Unit Of Output
(Parameter As Specified in the Consent Issued)

Pollutants	Quantity of pollutants Discharged (mass/day)		Concentrations of pollutants discharged (mass/volume)		Percentage of variation from prescribed standards
(a) Water					
	(Kg/day)		**(mg/L)**		
Parameter	**2020-21**	**2021-22**	**2020-21**	**2021-22**	
Oil & grease	0.88	1.25	1.5	1.05	-90 %
Total Suspended Solids	2	0.8	11.4	16.2	-84 %
COD	16	27	61.8	80.2	-68 %
(b) Air					
	(Tons/day)		**(mg/Nm^3)**		
Parameter	**2020-21**	**2021-22**	**2020-21**	**2021-22**	
PM	0.03	0.034	26.5	21.63	-86 %
SO_2	0.001	0.007	6.27	27.61	-
NOx	0.007	0.014	41.35	51.72	-

Effluent Quality (2021-22)

Parameter	UoM	Norms	Near Gate-2		
			Max	**Min**	**Avg**
pH	-	6.0-8.5	8.28	7.00	7.67
Total Suspended solids	mg/L	100	23.0	12.0	16.8
Oil & Grease	mg/L	10	1.8	0.4	1.3
Hexavalent Chromium, Cr+6	mg/L	50	<0.05	<0.05	<0.05
Biological Oxygen Demand, BOD	mg/L	0.2	26	2	8
Chemical Oxygen Demand, COD	mg/L	30	230	21	96

Ambient Air Quality (2021-2022)

Parameter	UoM	Norm	CAAQMS#1		
			Max.	**Min.**	**Avg**
Particulate Matter, PM_{10}	µg/m^3	100	227	38	129
Particulate Matter, $PM_{2.5}$	µg/m^3	60	105	17	57
Sulphur Dioxide (SO_2)	µg/m^3	80	34	13	25
Nitrogen Dioxide, (NO_2)	µg/m^3	80	43	7	23
Carbon Monoxide (CO)	µg/m^3	2000	913	612	790

PART-D
Hazardous Waste
[As Specified under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016]

Hazardous Waste	Total Quantity (in Tons)	
	During the previous Financial year (2020-21)	During the Current Financial year (2021-22)
(a) From Process		
Waste Oil (Oil Scum)	207	628.36
Iron Oxide Sludge	-	27.21
ETP Sludge	176	220.98

PART-E
Solid Waste

Total Quantity Generated

Name of the Waste	Total Quantity Generated (in Tons)	
	During the previous financial year (2020-21)	During the Current Financial year (2021-22)
a) From Process Metallic waste	17,990	22,700
(b) From Pollution Control Equipment Iron Oxide from Acid Regeneration Plant	2674.4	3268.6
(c) Total Quantity Recycled/ Re utilized within the unit	Nil	Nil

PART-F
Characteristics of solid and hazardous waste and method of disposal

Name of Wastes	Characteristics	Disposal Method
Iron Oxide	Ferrous	Auctioned to recyclers through Industrial By-products Management Division, Tata Steel

Name of Wastes	Characteristics	Disposal Method
Metallic waste	Ferrous	Auctioned to outside party/ Sent inside Tata Steel for recycle
Used/Waste Oil/ Oil scum	Non-ferrous	Disposal to TSDF
ETP Sludge	Ferrous & Oily sludge	Disposal to TSDF

PART-G

Sl. No.	Pollution abatement Measures taken in 2021-22	Impact on conservation of natural resources & others
1.	Improvement in Particulate matter (PM) at Acid regeneration plant stack: • Addition of two scrubbers- Venturi scrubber and FeCl2 scrubber for controlling stack emission. (target< 30 mg/Nm3) • ID fan complete housing modified and upgraded (from 2900 rpm to 3600 rpm, VFD) • Additional pumps placement and rerouting of piping network	Reduce air pollution
2	Green belt development: • Approx. 3.5 Ha area in and around plant (more than 33% of the plant area) • We have planted 13070 no. of samplings in the above area till date. • Density of plantation > 3000 plants/Ha which is more than CPCB guidelines.	Reduce air pollution
3	Rainwater harvesting: New pond Rejuvenated inside CRM Bara Complex. The pond comprises of two large and three small ponds and serves the purpose of rainwater harvesting and in maintaining the biodiversity of the surrounding area. This has resulted in accumulating 82,320 m3 rainwater and improving the biodiversity in the area.	Reduction in water consumption.

PART-H

Additional measures/investment proposal of environmental protection including abatement of pollution Measures taken:

- Zero effluent discharge plant is planned to set up.
- Additional fume exhaust scrubber placed for pickling line rinse tanks.
- Water sprinkling at plant premises to suppress dust emission due to vehicle movement.

PART-I

Any other particulars for improving the quality of environment

- CRM Bara is certified to Environment Management System, ISO-14001:2015, and ISO-45001:2018.