



TSL/SPCB/BS-30/2022-06/250

September 30, 2022

The Member Secretary

State Pollution Control Board, Odisha
Parivesh Bhawan, A/118,
Nilakantha Nagar, Unit-VIII,
Bhubaneswar-751 012

Subject: Environmental Statement for the financial year 2021-22 for Residential Township of M/s. Tata Steel Limited Meramandali, Dhenkanal.

Reference: Consent Order No.5425/IND-I-CON-6826 dated 31.03.2022.

Dear Sir,

In reference to the captioned subject and letter cited above, we are submitting herewith the “**Annual Environmental Statement (Form-V)**” duly filled in the prescribed format for the Residential Township of Tata Steel Limited at Narendrapur, Via: Meramandali, Dist.: Dhenkanal, Odisha, for the financial year 2021-22.

This is for your kind information and necessary record please.

Thanking you,

Yours faithfully,

For Tata Steel Limited

Anoop Srivastava

Anoop Srivastava
Head Environment

Encl: As above

Copy to:

1. Deputy Director General of Forests (C) Ministry of Environment Forest and Climate Change, Integrated Regional Office, A/3, Chandrasekharapur, Bhubaneswar – 751023.
2. Regional Officer, State Pollution Control Board, Odisha, Angul.
3. The Member Secretary, SEIAA, Odisha, Qr.No.5RF-2/1, Unit-IX, Bhubaneswar-751022

TATA STEEL LIMITED

Narendrapur Kusunpanga Meramandali Dhenkanal 759 121 Odisha India Tel 91 6762 352000
Registered Office Bombay House 24 Homi Mody Street Fort Mumbai 400 001 India Tel 91 22 66654282 Fax 91 22 66657724
Corporate Identity Number L27100MH1907PLC000260 Website www.tatasteel.com

[FORM-V]
(See rule 14 of The Environment Protection Act, 1986)

Environment Statement for the financial year ending 31 March 2022

PART – A

General Information		
	Name of the Company	Tata Steel Limited, Meramandali
1.	Name & Address of the owner/occupier of the industry, operation or process	Sri Thachat Viswanath Narendran CEO& MD Tata Steel Limited, Meramandali At: Narendrapur, PO: Kusupanga Via: Meramandali, Dist.: Dhenkanal, Pin: 759121, Odisha
2.	Industry Category	B
	Primary (STC Code)	-
	Secondary (STC Code)	-
3.	Production capacity-Units	Township
4.	Year of establishment	2021
5.	Date of last environment statement submitted	NA

PART – B

Water & Raw material Consumption		
1: Total Water Consumption (m³/d)		
Water Consumption	During the previous Financial Year (2020-21)	During the current Financial Year (2021-22)
Domestic Consumption	NA	1631
2: Water Consumption per unit of the product		
Name of the Products	Process Water Consumption per unit of product	
-	2020-21	2021-22
It is a Residential complex.		

3: Raw Material Consumption (Works):			
Name of Raw materials	Name of Products	Consumption of raw material per unit	
		During the previous Financial Year (2020-21)	During the current Financial Year (2021-22)
Chemical Consumed at STP			
Nalco 3935	-	-	19500 Kg
Cathflo		-	1200 Kg

PART – C

**Pollution discharged to Environment per unit of Output
(Parameters as specified in the Consent issued)**

Pollutants	Quantity of pollutants discharged (mass/day)	Concentrations of pollutants discharged (mass/volume)	% of variation from prescribed standards with reasons
(a) Water			
TSS	Zero discharge is maintained. 100% of treated STP water is reused in horticulture, landscaping and low end application of Plant.		
COD			
Ammonia as N			
BOD			
Phenols			
Cyanide as CN ⁻			
(b) Air			
It is a residential complex. Ambient Air Quality report is hereby attached below.			

1. Surface Water Quality

Parameter	UoM	Norms	Kisinda Nalla		
			Min	Max	Avg
pH Value	-	6.5-8.5	7.56	8.33	8.12
Dissolved Oxygen	mg/l	4-6	5.3	5.72	5.49
BOD (3) days at 27 °C	mg/l	3	1.8	2.4	2.16
Total Suspended Solid (TSS)	mg/l	100	54	76	66.75
Total Hardness as CaCO ₃	mg/l	-	188	322	259.58
Calcium as Ca	mg/l	-	45.29	77.75	62.67
Magnesium as Mg	mg/l	-	18.3	34.16	25.34
Iron as Fe	mg/l	0.5	0.007	0.18	0.08
Chlorides as Cl	mg/l	600	31.95	116.7	55.14
Fluoride as F	mg/l	1.5	1.3	5.8	2.62
Dissolved solids	mg/l	1500	276	447	339.25
Nitrate as NO ₃	mg/l	50	0.66	3.8	2.02
Alkalinity as CaCO ₃	mg/l	-	48	86	64.92
Phosphate as PO ₄	mg/l	-	0.42	0.8	0.59
Chemical Oxygen demand (COD)	mg/l	-	10	38	19.75

2. Sewage Treatment Plant -Treated outlet quality

Parameter	UOM	Standard	Township STP		
			Min	Max	Avg
pH Value	-	5.5-9.0	7.53	8.11	7.74
TSS	mg/l	100	44	212	66.42
BOD	mg/l	30	17.4	90.6	28.94
COD	mg/l	-	58	70	63.50

3. Ambient Air Quality

Parameters	UoM	Norm	CAAQMS- 1			CAAQMS- 2			CAAQMS- 3		
			Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
PM10	µg/m ³	100	8.13	153.49	42.49	10.14	316.10	126.20	15.75	334.53	114.75
PM2.5	µg/m ³	60	2.32	35.28	14.91	5.47	172.59	54.11	6.60	112.62	30.12
SO2	µg/m ³	80	7.87	43.37	18.71	3.23	43.59	18.64	3.90	76.25	15.51
Nox	µg/m ³	80	7.02	25.33	15.96	4.38	29.52	10.35	1.37	432.94	38.28
CO	mg/m ³	2	0.10	3.33	0.52	0.62	1.04	0.84	0.10	1.97	0.44

CAAQMS- 4			CAAQMS- 5			CAAQMS- 6			CAAQMS- 7		
Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
15.36	226.59	72.07	24.45	219.73	75.65	17.60	298.37	113.53	9.41	333.34	129.15
4.01	266.36	20.33	4.71	76.96	23.01	7.97	183.28	37.16	5.21	154.23	50.40
4.96	89.19	11.13	6.13	86.47	13.68	2.01	59.00	15.01	5.78	31.28	8.89
1.60	63.06	19.56	2.50	76.33	17.02	0.34	123.14	28.35	4.58	42.79	32.55
0.02	43.99	0.63	0.27	1.80	0.47	0.01	1.50	0.64	0.10	2.80	0.55

CAAQMS 1: Near Township; CAAQMS 2: Near AEL Boundary; CAAQMS 3: Near CRM; CAAQMS 4: Near Water Complex; CAAQMS 5: Near Coke Oven 2; CAAQMS 6: Near Wagon Tippler; CAAQMS 7: Near Material Gate.

Values are derived from 24 hourly average data except CO values are derived from 8 hourly average data.

PART – D

Hazardous Wastes (As specified under The Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016)		
Hazardous waste	Total Quantity (MT)	
	During the previous Financial Year (2020-21)	During the current Financial Year (2021-22)
Transformer Oil	Nil	Nil

PART – E

Solid Wastes

Total Quantity Generated

Name of the Waste		Total Quantity Generated (MT)	
		During the previous Financial Year (2020-21)	During the current Financial Year (2021-22)
During Construction phase	Construction debris	The construction debris and excavated soil generated is reused for backfilling	The construction debris and excavated soil generated is reused for backfilling
During Operation Phase	Municipal Solid Waste (Wet & Dry)	1277	1277

PART – F

Chemical Composition of majority of waste as produced in process of Tata Steel, Meramandali operation is given below:

Hazardous/ Solid Wastes		Characteristics	Method of disposal
Construction Phase	Construction Debris (Solid Waste)	Solid	Used for Levelling the Site and internal road formation
Operation Phase	No Hazardous Waste generated in FY21.		

PART – G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

Sl.N o	Pollution abatement measures taken in 2021-22	Impact of pollution control measure on conservation of natural resources and cost of production
1	Green Belt Development	25% of the township area has been covered with green belt. Vacant area and all along the roadside have been developed into lawns (except path way).
2	Rainwater Harvesting at Colony	Rainwater harvesting structure of capacity 25000 m ³ at colony has been constructed.
3	Ambient Air Quality	Roads have been concreted/ paver blocked to eliminate fugitive emission and also mechanical sweeping has been adopted to keep the road neat and clean. Installed Continuous Ambient Air Quality Monitoring System (CAAQMS) for continuous monitoring of Ground Level Concentrations (GLC) of PM10, PM2.5, SO2 and NOx in Ambient Air.
4	Water Quality	STP of 1000 KLD capacity have been installed to treat sewage water generated from township and 100% of treated STP water is reused in horticulture, landscaping and low end application of Plant.
5	Reducing of carbon in the environment	All CFL light have been replaced with LED light.

PART – H

Additional measures/ investment proposals for environmental protection abatement of pollution, and prevention of pollution.

- The Township is being complied with all Environmental Safeguards / Guidelines imposed in the Environmental Clearance.
- Green Belt – Well maintained green areas have been developed inside and outside premises to reduce noise pollution & air pollution, and to increase the scenic beauty.
- Separate bins have been provided in each housing unit for facilitating the segregation of waste into wet garbage and inert materials. Also, an organic waste converter of capacity 0.25 TPD is in operation.
- 1000 KLD STP installed for the treatment of sewage water and treated water is being reused for landscaping and in steel plant (low-end application).

PART – I

Any other undertaken project for improving the quality of environment

- An organic waste converter of 6 TPD capacity will be installed.
- Installation of 60 no. of solar based streetlights is in progress.
- Solar power based water heaters have been planned in the guest house by Mar'23.
- Development of plantation through Miyawaki method and development & maintenance of trees in schools and community halls.
- Training staff on methods of energy conservation and to be vigilant to such opportunities.
- Promoting resident awareness on energy conservation

Glimpses of Tata Steel Limited Meramandali Township



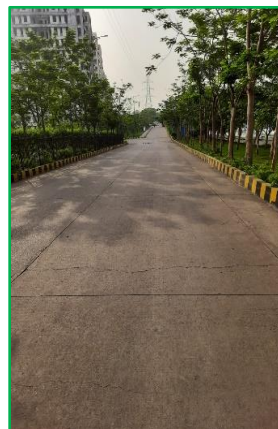
Rainwater Harvesting Pond



Sewage Treatment Plant (1000 KLD)



Concrete Road & Avenue Plantation



Landscaping