



TSJ/EMD/C-23/195/24
September 27, 2024

The Member Secretary
Jharkhand State Pollution Control Board
T.A. Division Building
HEC Campus, Dhurwa
Ranchi - 834004

Subject: Submission of Environment Statement for Township of Tata Steel Limited, Jamshedpur for the year 2023-24

Dear Sir,

With reference to captioned subject, we are submitting herewith the Environment Statement for Township of Tata Steel Limited, Jamshedpur for the year 2023-24 duly filled in the prescribed format for your kind consideration.

You are requested to kindly acknowledge the same and place in your records.

Thanking you

Yours faithfully,
For Tata Steel Limited

Utsav Kashyap
Head Environment Clearance & Compliance (TSL)

Enclosures as above

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

TATA STEEL LIMITED

Environment Management Jamshedpur 831 001 India

Ph: 8092087043 (M) e-mail: utsav.kashyap@tatasteel.com

Registered Office: Bombay House, 24 Homi Mody Street, Mumbai 400001

Tel 91 22 66658282 Fax 91 22 66657724

Corporate Identity Number L27100MH 1907PLC000260 Website www.tatasteel.com

**ENVIRONMENTAL STATEMENT
FOR THE YEAR 2023-24**

**Township
TATA STEEL LIMITED**

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

Environment Statement 2023-24

[Form V]

Environmental Statement for the Financial Year ending 31/03/2024

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	Orange Category
	Primary STC Code:	SIC Code: 4941, 4950 & 4953
	Secondary SIC Code	-
(iii)	Production Capacity	Kharkai STP – 16 MLD, Bara STP – 45 MLD List of services provided, and Major Installations within Tata Steel Leasehold Area for Township Operations is enclosed as Annexure I
(iv)	Year of Establishment	1907
(v)	Date of last Environment Statement submitted	September 25, 2023 vide letter no. TSJ/EMD/C-23/174/23

Part B

WATER & RAW MATERIAL CONSUMPTION

i) Water Consumption (m³/day)

Process	:	0
Cooling	:	0
Domestic Consumption	:	2,21,622
(As drinking water supplied to township)		

Name of the product	Process water consumption/unit of product output	
	During the Previous Financial year (2022-23)	During the Current Financial year (2023-24)
Township Services		
Water Treatment at WTP	65,42,108 m ³ /month	66,48,666 m ³ /month

Commented [NS1]: By Akash gupta

Commented [NS2R1]: 6648666 by Akash gupta

Commented [NS3R1]: 6649000 by Mayuk ghosh

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ii) Raw Material Consumption (Water Treatment Plant):

Name of Raw Material	Name of the Products/Services	Consumption of Raw material (Tonnes)	
		During the Previous Financial year (2022-23)	During the Current Financial year (2023-24)
Solid Alum	Water Treatment	175	190
Liquid PAC		555	430
Liquid Alum		502	811
Liquid Chlorine		210	227
Powder PAC		30	45
Bleaching Powder		13.5	51
Polyelectrolyte		2.5	2.5

Commented [NS4]: By Akash gupta

Part C

Pollution Discharged to Environment / Unit of Output (Parameter as Specified in the Consent Issued)

Pollutants	Concentrations of pollutants in discharges (mass/volume)		Percentage of variation from prescribed standards with reasons
	mg/L		
a) WATER	Northern STP (Bara) Treated Outlet		
	2022-23	2023-24	
BOD	9.9	10.2	-66
COD	24.6	26.86	-89
TSS	12.9	12.2	-88
Oil & Grease	4.4	5.0	-50
b) AIR	Not Applicable		

Pollutants	Concentrations of pollutants in discharges (mass/volume)		Percentage of variation from prescribed standards with reasons
	mg/L		
a) WATER	Southern STP (Kharkai) Treated Outlet		
	2022-23	2023-24	
BOD	9.5	9.7	-68
COD	24.6	25.37	-90
TSS	25.3	10.83	-89
Oil & Grease	4.1	4.5	-55
b) AIR	Not Applicable		

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Part D

Hazardous Waste (As specified under Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2016)

Hazardous Waste	Total Quantity (Tonnes)	
	During the Previous Financial year (2022-23)	During the Current Financial year (2023-24)
(a) From Process	NA	NA
(b) From Pollution Control Facilities	NA	NA

Part E

Solid Waste

Total Quantity Generated

Name of the Waste	Total Quantity Generated	
	During the Previous Financial year (2022-23)	During the Current Financial year (2023-24)
(a) From Process		
Municipal Solid Waste	99,280 Tonnes	99,552 Tonnes
(b) From Pollution Control Equipment (cubic meter)		
STP Sludge	600 m ³	580 m ³
(c)(1). Total Quantity Recycled/ Reutilized within the unit		
Total waste processed at compost plant (Municipal solid waste)	111,825 Tonnes	134,095 Tonnes
(c)(2). Total Quantity Sold		
Organic Compost from Municipal Solid Waste	7,546 Tonnes	14,282 Tonnes
STP Sludge	600 m ³	48 m ³
(c)(3). Total Quantity Disposed		
Inert Municipal Solid Waste (Process Rejects)	0	0

Commented [NS5]: By Wasim sir on 18/09/2024

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Part F

Please specify the characterizations (in terms of composition of quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

A. Physical Analysis

Sl. No.	Waste Stream Materials	% Content	Qty MT out of 400TPD
01.	Short Term Bio-degradable: Leafy matter, food waste, remains of fruits, vegetables	50.20	200.60
02.	Remains of fish, meat, poultry	2.80	11.20
03.	Tree twigs, banana stump, hardnuts, coconut shells, palm leaves	4.00	16.00
04.	Cotton, jute, wool, rags, textiles, yarn	4.50	18.00
05.	Rubber and leather products	1.80	7.20
06.	Bamboo products, wooden materials, coir, cane, furniture etc.	4.80	19.20
07.	Diapers, napkins, bandages etc.	1.50	6.00
08.	Paper products of all kinds	3.70	14.8
09.	Plastic products of all kinds	4.80	19.20
10.	Glass & Metals	1.20	4.60
11.	Stone, earth, street sweeping dust	12.00	48.00
12.	Cattle dung and others	8.70	34.60
Total		100.00	400.00

B. Waste Suitability Analysis for Product Recovery

Sl. No.	Items	%	Qty. MT
1.	Easily Compostable matter incl. food waste, fish, meat waste and cattle dung	58.00	232.00
2.	Combustible materials with high C.V. to be recovered as refused derived fuels	18.30	73.20
3.	Recyclable plastic	4.00	16.00
4.	Construction material	12.00	48.00
5.	Non-usable inert for SLF	7.70	30.80
Total		100.00	400.00

C. Calorific Value Analysis:

- Gross Calorific Value of mixed sample 1130 Kcal/Kg
- Gross Calorific Value of combustibles 2320 Kcal/Kg

D. Chemical Analysis

Sl. No.	Parameter	Observed Values
1.	pH	6.2
2.	Organic Carbon %	35.00

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3.	Nitrogen %	0.84
4.	Phosphorus %	0.46
5.	Potassium %	0.42
6.	Calcium %	1.40
7.	Magnesium %	0.36
8.	Sulphates %	0.40
9.	C : N Ratio	41.6:1

E. Heavy Metal Analysis:

Sl. No.	Parameter	Observed Values (PPM)
1.	Lead	60.00
2.	Cadmium	Below Detectable Limits
3.	Nickel	8.50
4.	Chromium	4.00
5.	Mercury	Below Detectable Limits
6.	Copper	30.00
7.	Zinc	70.00

Part G

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

Sl. No.	Pollution abatement Measures taken	Impact on conservation of natural resources & others
1	Tree Plantation 2020-21= 104908 nos.	Increase in green cover
2	Tree Plantation 2021-22= 124604 nos.	Increase in green cover
3	Tree Plantation 2022-23= 121629 nos.	Increase in green cover
4	Tree Plantation 2023-24= 140128 nos.	Increase in green cover

Part H

Additional Measures Investment Proposal of Environmental Protection Including Abatement of Pollution

- On pilot basis, Zero Waste Society developed and operationalized at Prakriti Vihar having biogas unit, zero brick dry waste bins, leaf composting.
- 7 Nos. Modular Biogas operationalized and 100 Nos. installation advocacy under progress.
- New 3 Nos. of Transfer Station constructed.
- 2 Lakh MT Legacy Waste Biomining done, reclaiming 5 Acre of land. Reclaimed land to be used for construction of compost plant.
- Ground Water NOC taken from Central Ground Water Authority (CWGA), Government of India.
- Environmental Clearance and CTE taken for construction of Sanitary Landfill at Begunadih.
- 14282 MT of compost sold.

Commented [NS6]: By Wasim Sir

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- City compost is being sold to reputed organization like Coromandel international, K.V. Sales, Geeta Organics and Paradeep Phosphorates Ltd.
- Scientific capping of old bara dumpsite is completed.
- 184 MT E-Waste collected in the 5th year of its operationalization and tied up with Hulladeck for scientific disposal of e- waste.
- Upcycling center opened at ECC flats for recycling dry waste to carpets, refurbished shoes, cloth bags, plastic paver blocks etc.
- D2D Collection from 38922 HH/Establishments. QR code for IOT based D2D collection installed in approx. 27757 houses.
- Positioned 43rd in all India ranking during the assessment of Swachh Survekshan 2023 - 2024. Positioned as 1st in Jharkhand ranking.
- RRR campaign, Meri Life Mera Swacch Seher, Swacchta League, Mass cleanliness drives successfully completed in the city as part of community engagement.
- Jamshedpur retained 3-star rating under "Garbage Free Certification of the City".
- Massive awareness campaigns (120 nos) were organized to combat Dengue.
- All PHS vehicle shifted from Diesel to CNG and further under progress to upgrade to EV.
- 100% GPS installed in all PHS vehicles and 100% monitoring of over- speeding, GVP points and monthly bill certification.

Part I

Any other particulars for improving the quality of Environment

- River clean-up / Water conservation and mass awareness drives in the township.
- Mass awareness drives in the township during World Water Day.
- Construction, Operation & Maintenance of Package Sewage Treatment Plant of 500 KLD at M – Type, Oriya Bustee.
- Facilitation to Township consumer for installing Roof Top Solar by providing Net Meters. The total RTS install capacity (FY-24) in Town is 2328.5 kWp and total unit generated (FY-24) by this drive is 1.95 MU.

Commented [NS7]: By Mayuk ghosh

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Annexure – 1

List of services provided and Major Installations within Tata Steel Lease Hold Area for Township Operations

I.	Type of services provided
	<ul style="list-style-type: none"> i. Power Supply to Company accommodations and adjoining area. ii. Drinking Water Supply to Company accommodations and adjoining area. iii. Repair and Maintenance of roads of lease area. iv. Maintenance and operation of Sewage network of command area (Sewage pumping stations and Sewage Treatment Plant) v. Fleet Management Services – Maintenance of company vehicles. vi. Municipal Solid Waste Management – Collection, transportation, processing and Disposal from township. vii. Horticulture and green cover of township.
II.	Office Installations
	<ul style="list-style-type: none"> i. Chamaria Guest House ii. Tubes Guest House iii. Directors Bungalow - 1 iv. Directors Bungalow - 2 v. Tata Workers Union vi. JUSCO Shramik Union vii. Security Training Centre. viii. Urban Services ix. Corporate Communication TSL x. Centre for Excellence, xi. JUSCO Corporate Office xii. Town Electrical Office xiii. Horticulture Office xiv. ICS Centres (South Park, Central, Kadma, Sakchi, Sidhghora) xv. Public Health Centres (RDB, NT, Kasidih, Baridih, Burma mines) xvi. Tata Zoological Park xvii. Public conveniences throughout township (Urinals / Public Latrines)
III.	Market
	<ul style="list-style-type: none"> i. Bistupur Market ii. Kadma Market iii. Sakchi Market iv. Golmuri Market v. Sidhghora Market vi. Burmamines Market vii. Kagal Nagar Market viii. Gudri Market ix. Airport Market

IV Residential Accommodations									
Sl. No.	Area	Qtrs	Flat	Bung.	Sl. No.	Area	Qtrs	Flat	Bung.
Agrico					Kadma				

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IV Residential Accommodations									
Sl. No.	Area	Qtrs	Flat	Bung.	Sl. No.	Area	Qtrs	Flat	Bung.
1	New/ Bara Flats		594		47	Kaiser Bung. (2 R)			15
2	Agrico - Bara Flats		240		48	Kaiser Bung. (3 R)			77
3	Rn1/Agrico	3			49	New Tc Bha Kadma-2 R			22
4	M2/Agrico	2			50	New Tc Bha Kadma-3 R			38
5	L4/Agrico-H6/Golmuri	715			51	Ts Flat (Old)		60	
6	L5/Agrico	174			52	T.S.Flat (New)		24	
7	L6/Agrico	198			53	Kf4 Flats,Kadma		153	
Baridih					54	Beldih Lake Sup.Flat		112	
8	M.Sup.Flat, Tubes		56		55	Gps Flats		238	
9	Baridih Flats		728		56	Green Enclave, Kadma		182	
10	New K2 Type	280			57	Prakriti Vihar(Nopr)		182	
11	Modified Nb	251			58	Uliyan/Kadma Flats		1895	
12	Tj1/Tj2, Baridih	296			59	Green Enclave(Opr)		70	
13	K2/Tubes Baridih	50			60	Prakriti Vihar, Kadma		140	
14	L4/Tubes Baridih	93			61	K/K.D. Type		28	
15	L5 & S Type Tubes	56			62	Dindli Enclave, Kadma		70	
16	L6/Tubes Baridih	122			63	K.D.Flats, C.H.Area		32	
17	New Baridih	64			64	K.D.Flats, Kadma		76	
18	Modified Tj Type,	105			65	Kaiser Flats, Kadma		8	
Bistupur					66	Prof.Flats,I.C.Road		152	
19	Tr/Bistupur	206			67	Prof.Flats, K.S.Link		192	
20	L4/Bistupur	43			68	Prof.Flats, Farm Area		80	
21	L5/Bistupur	38			69	K.S Link Executive Flats		24	
22	H2,H3,H4,H6,G1 & G2	451			70	Gt (Uliyan Flat)		89	
23	G,H1 & H5,Bistupur	65			71	Rn1,N2,N1 & Rmr,Kadma	0		
24	P & P1 Bistupur	27			72	M2 Kadma	0		
Burmamines					73	Tr Including R.D.Bhatta.		286	
25	Security Flat B.Mines		140		74	Modified Tr Type,Kadma		239	
26	S-Type B/Mines	160			75	L4/Xn(R.D.Bhatta)Tj4,Bha		19	
27	L,L3,L4 & Bml,B/Mines	485			76	L5 Kadma		545	
28	H6 & Bmh Burma Mines	93			77	L6 & G5, Kadma		98	
29	Bung. Burma Mines	8			78	H6 Kadma		100	
Dhatkidih					79	Pc & Pcf		21	
30	Dhatkidih Flats		96		80	T.C. (Old)		60	
31	Proto Type Flat		8		81	Modified M-2 Type	0		
32	Cs Quarters	435			Sakchi				
Golmuri					82	Sf1, Swarnarekha Flat		198	
33	Gf1,Gf2,Gf3,Gf4 Flats		253		83	Sf3, Baradwari Flat		192	

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IV Residential Accommodations									
Sl. No.	Area	Qtrs	Flat	Bung.	Sl. No.	Area	Qtrs	Flat	Bung.
34	Gf5 Flats		80		84	New Swarnrekha Flats		48	
35	Golmuri Flats - 6		196		85	Pipe-Line Flats, Sakchi		32	
Nildih					86	Rn & N1 Sakchi	0		
36	B Type Bungalow, Nildih			2	87	M2/Sakchi	78		
37	Ds/B Bungalow, Nildih			10	88	Tr & Sm Sakchi	85		
38	C Type Bungalow, Nildih			21	89	L,L1,L2,L3,L4,Lh - Sakchi	721		
39	Dsb Type Flats, Nildih		8		90	Security Flats Sakchi	1		
40	C_Type Flats, Nildih		32		91	H6/Sakchi	190		
41	D Type Flats, Nildih		28		92	G4/Sakchi	13		
42	P Type Flats, Nildih		66		93	Modified Tr Type Sakchi	48		
Northern Town					Sidhgora				
43	N Town Bungalow			189	94	New Sr/Sidhgora	9		
44	Vip Bungalow			24	95	Sr/Sidhgora	14		
45	Park Road Officers' Flats		48		96	X/Xn-Sidhgora	464		
46	Jubilee Rd.Officers' Flat		64		97	Modified X-Xn, Sidhgora	273		

V Work Installations		
S.No.	Location	Premises Type
i	Southern STP (Kharkai) 16 MLD	Sewage treatment plant
ii	Bara Sewage Treatment Plant 45 MLD	Sewage treatment plant
iii	Northern SPS (CH Area)	Sewage pumping station
iv	Sonari SPS	Sewage pumping station
v	Old Uliyan SPS	Sewage pumping station
vi	New Uliyan SPS	Sewage pumping station
vii	Baradwari Sewage Pumping Station	Sewage pumping station
viii	Burma Mines Sewage pumping station	Sewage pumping station
ix	Bhuiyandi Sewage Pumping Station	Sewage pumping station
x	Baridih SPS	Sewage pumping station
xi	Swarnarekha SPS	Sewage pumping station
xii	Southern SPS	Sewage pumping station
xiii	WTP Sakchi (Including Chlorination)	Drinking water tower
xiv	Central WT	Drinking water tower
xv	Sakchi WT	Drinking water tower
xvi	Kadma WT	Drinking water tower
xvii	Tata Nagar WT	Drinking water tower
xviii	Burma Mine WT	Drinking water tower
xix	Sidhghora WT	Drinking water tower
xx	Sonari WT	Drinking water tower
xxi	River Pump House	River water pumping station
xxii	Dimna Filter Plant	Water Treatment Plant

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	xxiii	Dimna Management Development Centre	DBGR
	xxiv	Fleet Management	Vehicle Maintenance
	xxv	Horticulture Nursery	Park and garden
	xxvi	Town Electric Office	Office area
	xxvii	Compost Plant – 50 TPD	Manure manufacturing plant
VI	Sonari Airport		
VII	Hospitals and dispensaries		
	i.	Tata Main Hospital	
	ii.	Dispensaries (ECC, Sonari, Kadma, South Park, Tubes, Sakchi, Sidhghora, Agrico, Burmamines)	
	iii.	Adersir Dalal Memorial Hospital.	
	iv.	Kantilal memorial Hospital	
	v.	Centre for Family Initiative	
	vi.	Veterinary Hospital	
	vii.	Dog Sterilization Centre	
	viii.	Immunization Centre	
VIII	Educational Institutions		
	i.	SNTI, N-Road.	
	ii.	Mrs. KMPM Intercollege	
	iii.	JUSCO School , South Park	
	iv.	JUSCO School, Kadma.	
	v.	Kasidih High School	
	vi.	RD Tata Technical Institute, Golmuri.	
	vii.	Burmamines High School	
	viii.	DM Madan Girls High School	
	ix.	Sakchi Girls High School	
	x.	Jamshedpur Public School	
	xi.	AIWC School, Old Baridih	
	xii.	Tube Baridih High School.	
IX	Parks – 44 Parks and Gardens		
	i.	Jubilee Park	
	ii.	Dorabji Park	
	iii.	Bistupur Postal Park	
	iv.	Bhetiya Park	
	v.	New Kagalnagar Park	
	vi.	Nildih Children Park	
	vii.	Nature Trail Sidhghora	
	viii.	Nildih Park	
	ix.	Jamshedpur Nature Trail	
	x.	Biodiversity Park, Kadma	
	xi.	Ramnagar Park	
	xii.	Dalma View Point	
X	Playgrounds/ Golf ground/ Clubs		
	i.	JRD Sports complex	
	ii.	Keenan Stadium	
	iii.	Mohan Ahuja Stadium	
	iv.	Gopal Maidan	

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	<ul style="list-style-type: none">v. Armoury Groundvi. Aaam Baganvii. Bari Maidanviii. Agrico Maidanix. G-Town Maidan <p>Golf ground</p> <ul style="list-style-type: none">x. Beldih Golf Coursexi. Golmuri Golf Course <p>Clubs</p> <ul style="list-style-type: none">xii. G-Town Clubxiii. United Clubxiv. Beldih Clubxv. Tube Makers Clubxvi. Golmuri Club
XI	<p>Bustees</p> <ul style="list-style-type: none">i. Gurudwara Busteeii. Harijan Bustee, Dhatkhediiii. Ranikudariv. New Ranikudarv. Sonari Busteevi. Khutadih Busteevii. Kumharpada Busteeviii. Kasidih Busteeix. Hume Pipe Busteex. Bhalubasha Busteexi. Sitaramdera Busteexii. Baridih Busteexiii. Toiladungri Busteexiv. Gadabasha Busteexv. East Plant Busteexvi. Namda Busteexvii. Monifit Bustee