Raju Agrawal
Head, Environment Clearance & Compliance (TSL)
Environment Management

EMD/C-23/247/21
September 22, 2021

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

Subject: Environmental Statement 2020-2021 for Tata Steel Limited - Tubes Division, Jamshedpur

Dear Sir,

This has reference to the captioned subject. Please find enclosed the **"Environmental Statement"** for Tata Steel Limited - Tubes Division, Jamshedpur for the year 2020-2021 duly filled in the prescribed format is enclosed for your kind consideration.

Thanking you

Yours faithfully,
For Tata Steel Limited

Raju Agrawal
Head, Environment Clearance & Compliance (TSL)

Encl: As Above

Copy to: Regional Officer, Jharkhand State Pollution Control Board, Adityapur, Jamshedpur – 831013

ENVIRONMENTAL STATEMENT FOR THE YEAR 2020- 2021

TUBES DIVISION
TATA STEEL LIMITED

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

FORM – V

Environment Statement Report for the Year ending 31/03/2021

PART-A

I)	Name and address of the occupier	:	Mr. T. V. Narendran CEO & Managing Director Tata Steel Limited, Jamshedpur-831001 Jharkhand
II)	Industry Category Primary (SIC Code) Secondary (SIC Code)	: : :	3547 Not available Not available
III)	Production capacity	:	235000 MTPA (Standard Tubes) 85000 MTPA (Precision Tubes)
IV)	Year of establishment	:	1954
V)	Date of last environmental statement submitted.	:	September 18, 2020 vide letter no. EMD/C-23/409/20

PART-B
WATER & RAW MATERIAL CONSUMED

i) Water Consumption (m^3/day)

Water Consumption	During the Previous Financial year (2019-20)	During the Current Financial year (2020-21)
Industrial Consumption (Process & Cooling as Makeup water)	632	605
Domestic Consumption (as drinking water)	46.16	46

Name of the product	**Process water consumption per unit of product Output**	
	During the Previous Financial year (2019-20)	During the Current Financial year (2020-21)
Standard Tubes & Precision Tubes	0.90 KL/Tonnes	0.99 KL/Tonnes

ii) Raw Material Consumption:

Name of Raw Material	**Name of the Products**	**Consumption of raw material**	
		2019-2020	**2020-2021**
		MT/Yr.	**MT/Yr.**
Hot & Cold Rolled Strips	Standard tubes & Precision tubes	269980	233356
Zinc spelter		2162.66	1511.60
Pre-flux		80.4	47
Top-flux		28.7	37.27
Sulphuric Acid		364.56	271.37
Hydrochloric Acid		200.78	243

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 with reasons.
a) WATER	**kg/day**		**mg/L**		**In %age (refererring CTO)**
	2019-2020	**2020-2021**	**2019-2020**	**2020-2021**	
TSS	NA*	NA*	28.0	15.3	-84.7
Oil & Grease	NA	NA	4.40	1.7	-83
BOD	NA	NA	<10	<10	-66.7
COD	NA	NA	70.0	65.75	-73.7
b) AIR	**kg/day**		**mg/Nm³**		
	2019-2020	**2020-2021**	**2019-2020**	**2020-2021**	
PM	12.21	11.89	18.27	17.80	-82.2
SO_2	-	-	-	-	-
NO_x	-	-	-	-	-

*No process effluent is being discharged outside the premises

Ambient Air Quality (2020-21)

Parameter	Norm	UoM	Tube Division Near Canteen		
			Max	Min	Avg
Particulate Matter, PM_{10}	**100**	µg/m³	360	21	217.5
Particulate Matter, $PM_{2.5}$	**60**	µg/m³	124	14	79.9
Sulphur Dioxide (SO_2)	**80**	µg/m³	32	6	13.5
Nitrogen Dioxide, (NO_x)	**80**	µg/m³	83	18.7	42.8
Carbon Monoxide (CO)	**2**	mg/m³	0.72	0.25	0.4
Ammonia (NH_3)	**400**	µg/m³	125	22.4	70.8
Ozone (O_3)	**100**	µg/m³	29	7	16
Lead (Pb)	**1**	ng/m³	< 1.0	< 1.0	< 1.0
Arsenic (As)	**6**	ng/m³	< 1.0	< 1.0	< 1.0
Nickel (Ni)	**20**	µg/m³	< 5.0	< 5.0	< 5.0
Benzene (C_6H_6)	**5**	µg/m³	< 0.1	< 0.1	< 0.1
Benzo alpha Pyrene (BaP)	**1**	ng/m³	< 0.1	< 0.1	< 0.1

PART-D

HAZARDOUS WASTES

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

Total Quantity Generated

Hazardous Wastes	Total Quantity (Tonne/year)	
	2019-20	2020-21
Zinc by product (Ash, Dross, Dust, Blowing)	843.03	718.45
Acid Residue (Hydrochloric Acid & Sulphuric Acid)	1276.66	879.15
Phosphating sludge	60.18	46
Chemical sludge from common industrial ETP	72.60	8.47
Used oil & residue containing oil	44.63	55.72

PART-E

SOLID WASTES

Sl. No.	Solid Waste	Total Quantity Generated	
		2019-20	2020-21
a.	From process ▪ Metal finishing wastes	11001.68 MT	11029.71MT
	▪ Zinc Metal Wastes	827.563 MT	685.23MT
b.	From Pollution Control facility	Nil	Nil
c.	Quantity recycled within the unit	Nil	Nil

PART - F

Characteristics of hazardous as well as solid wastes and their method of disposal:

Hazardous / Solid wastes	Characteristics	Method of disposal
Metal Finishing Wastes (Solid Waste)	Ferrous	Auctioned to outside parties to reuse.
Zinc Metal Wastes	Zinc compound	Sent to registered recyclers.
Pickling Sludge	Acidic	Sent to registered recyclers.
Phosphating Sludge	Acidic	Sent to registered parties to reuse.
ETP Sludge	Acidic	Sent to TSDF facility outside the premise.
Zinc By-Product	Zinc Compound	Sent to registered recyclers.
Used Oil	Oily	Sent to registered recyclers.

PART - G

Impact of pollution control measures on conservation of natural resources and consequently on the cost of production.	• Electricity Consumption reduced from 24917 MWH to 21993 MWH in FY'21. Consequently, reducing emission of GHGs. • Water consumption reduced from 230566 KL to 220654 KL in FY'21. • Zero effluent discharge unit. Treated water recycling into processing units.

PART - H

Additional investment proposal for environmental protection including abatement of pollution	• Online Stack Monitoring system is under installation in Boiler unit. • Online AAQMS is in process of installation. • Rainwater Harvesting system is proposed. • Solar Energy system (13 KW) installation is proposed. • 65 nos. of saplings were planted in FY'21. Almost all vacant space inside plant premises is covered with plantation and being maintained.

PART – I

Any other particulars for improving in respect of environmental protection and abatement of pollution.	• Tubes Division is taking different steps to reduce water consumption in Canteen and Office Building by use of automatic faucet & shower flow ECO 365. • Tubes Division has implemented ISO: 14001:2015 (Environmental Management System).