The Member Secretary,
Odisha State Pollution Control Board,
A/118, Nilakanthanagar, Unit-VIII,
Bhubaneswar – 751 012, Odisha.

TSK/Env/C-05/25/2021
Sep 29, 2021

Dear Sir,

Reg: Environmental Statement for the year 2020-21 for Residential Complex of Tata Steel Ltd at Kalinganagar Industrial Complex Located at Khurunti & Gadapur, Dist- Jajpur, Odisha.

We are enclosing the **"Environmental Statement" duly filled in Form V,** for the year 2020-2021 for Residential Complex of Tata Steel Ltd at Kalinganagar Industrial Complex located at Khurunti & Gadapur, Dist- Jajpur, Odisha for your kind consideration.

We trust that you will find the above in order.

Thanking you and assuring you of our best attention.

Yours faithfully,

For **Tata Steel Limited**

Sr. Manager, Environment
Tata Steel Kalinganagar

Encl : a/a.

Copy to: Regional Officer, OSPCB, KNIC

ENVIRONMENTAL STATEMENT
FOR THE YEAR 2020-21

For

RESIDENTIAL COMPLEX FOR TATA STEEL LTD AT KALINGANAGAR INDUSTRIAL COMPLEX

ENVIRONMENTAL DEPARTMENT
TATA STEEL KALINGANAGAR
Kalinga Nagar Industrial Complex
Duburi- 755026, Dist.- Jajpur, Odisha

FORM-V

ENVIRONMENTAL STATEMENT FORM-V
(See rule 14)

Environmental Statement for the financial year 2020-21 ending with 31st March

For

Residential Complex for Tata Steel Plant at Kalinganagar Industrial Located at Khurunti & Gadapur, Dist- Jajpur

PART-A

i)	Name and address of the owner/ occupier of the industry, operation or process	:	Rajiv Kumar VP, Operations Tata Steel Limited, Block-2, General Admin office Kalinga Nagar Industrial Complex Duburi-755026 Odisha
ii)	Industry Category Primary (STC code) Secondary (STC code)	:	Residential Complex (Built Up Area- 147380 Square Meter)
iii)	Production Capacity	:	NA
iv)	Year of Establishment	:	2018 (April)
v)	Date of Last Environmental /Audit Report submitted	:	28/09/2020

PART-B

WATER AND RAW MATERIAL CONSUMPTION

i) **Total Water consumed** (m^3/day)

Process : Nil
Cooling : 45 (Construction & Spraying on road)
Domestic : 121

Name of the product	**Process water consumption per unit of products**	
	During the previous Financial Year 2019-2020	**During the Current Financial Year 2020-2021**
The development is a Residential Complex		
For Domestic Purpose	Nil	44214 cum
For Construction Purpose	64812 Cum	16463 cum

It is envisaged that after full occupancy of the residential complex, water consumption is to be 800 KLD.

ii) Raw material consumption:

Name of Raw Material#		Consumption of raw material per unit of output	
		During the previous Financial Year 2019-2020	**During the Current Financial Year 2020-2021**
Construction Phase/ Operational Phase	Ready Mix Concrete	14080.50 Cum	5310
	Fly Ash Bricks	469718 Nos.	204739
	Cement	6182 MT	2795.2
	Sand	8611.50 CUM	3756.6
	Diesel	114672.50 Ltr.	60205
	Reinforcement	2628 MT	399.96

- It is a Residential complex without any processing of raw material and there is no production. Ready-mix material is used as per the requirement.

PART-C

POLLUTION DISCHARGED TO ENVIRONMENT/ UNIT OF OUTPUT (PARAMETERS AS SPECIFIED IN THE CONSENT ISSUED)

Sl No.	**Pollutants**	**Quantity of Pollutants discharged (mass/day)**		**Concentration of Pollutants discharged (mass/volume)**		**Percentage of variation from prescribed standard with reasons**
a)	WATER	**Kg/day**		**mg/lit**		_
		FY: 2019-20	**FY: 2020-21**	**FY: 2019-20**	**FY: 2020-21**	_
		No Discharge.				
b)	AIR	**Kg/day**		**mg/Nm^3**		_

		FY: 2019-20	**FY: 2020-21**	**FY: 2019-20**	**FY: 2020-21**	–
		It is a residential complex. There is no stack/point source emission. Ambient Air Quality report is attached as Annexure-1				

PART-D
HAZARDOUS WASTES

(**AS SPECIFIED UNDER HAZARDOUS WASTES (MANAGEMENT, HANDLING AND TRANS BOUNDARY MOVEMENT RULES, 2008)**

Sl. No as per Schedule-I	**Hazardous Wastes**	**Total Quantity (Kg)**	
		During the previous Financial Year 2019-2020	**During the Current Financial Year 2020-2021**
Construction Phase	Used Oil	Nil	Nil
Operational Phase	Occupancy started in FY20		

PART-E
SOLID WASTE

Solid waste		**Total Quantity Generated**	
		During the previous Financial Year 2019-2020	**During the Current Financial Year 2020-2021**
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
	Excavated soil		
Operational Phase	2408 Kgs of waste food generated and disposed through Organic waste converter		

PART-F

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

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 control measures taken on conservation of natural resources and consequently on the cost of production.

- Water sprinkling on roads as pollution control measures to suppress dust generation during transportation, idling of vehicles is reduced to the extent possible and only PUC certified vehicles are used at construction site.
- Landscape & garden development is done to enhance aesthetic beauty.
- Plantation programme is taken and will continue in FY22.

PART-H

Additional measures/investment proposal for environmental protection including abatement of pollution

- The Residential Complex is duly complying with all Environmental Safeguards / Guidelines imposed in the Environmental Clearance.
- Consent to Establish and Consent to Operate are obtained from OSPCB.
- Approval for the structural safety of the building as per National Building Code of India, 2005 has been obtained from registered structural engineer/ Architect.
- Fire Safety Certificate is obtained from the Chief Fire officer, Fire prevention wing
- Occupancy certificate is obtained from Kalinganagar Development Authority on 14/03/2019.
- D.G Sets are equipped with acoustic enclosure & stacks of adequate height to reduce the noise and control the stack emission to abate air pollution.
- Energy efficient equipment like CFL and LED lights have been installed to conserve energy.

- Green Belt – Well maintained green area is being developed inside and outside premises to reduce noise pollution, air pollution and increasing the scenic beauty.
- 6090 Nos. of tree plantation done till FY21
- In FY21, Landscape development of Area 1852 Sq. mtr were done.
- Drinking water treatment and sewage treatment facilities are in operation.
- Two numbers of Organic Waste Converter Machines are in operation.

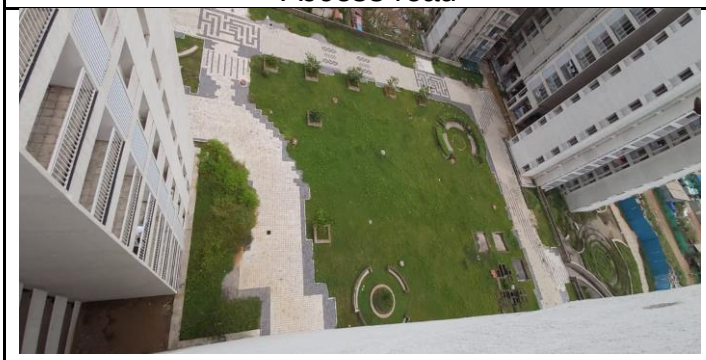
PART-I

MISCELLANEOUS:

Any other in respect of environmental protection and abatement of pollution.

- Glass has been restricted less than 40 % of the total outer wall area.
- Roofs have been constructed as per energy conservation building Code (ECBC) norms. Same shall be followed for the remaining.
- Opaque walls have been made as per Energy Conservation Building Code.
- Consent to Operate (CTO) for Tata steel residential Complex granted by OSPCB vide Letter No. 4196/IND-I-CON-6643 dtd. 04.04.2018

Some Photographs of Tata Steel Residential Complex

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td>Access road</td><td>Green corridors</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Landscaping inside complex</td><td>Solar panels installed above high rise buildings</td></tr>
</table>

	
Organic Waste Converters in operation	Sewage Treatment Plant in Operation

-x-

Annexure-1

Sampling Station	PM_{10} µg /m^3	$PM_{2.5}$ µg /m^3	SO_2 µg /m^3	NO_X µg /m^3	CO mg/m^3	Ozone (O_3) µg/m^3	Lead (Pb) µg/m^3	Ammonia (NH_3) µg/m^3	Benzene (C_6H_6)	Benzo (a) Pyrene ng /m^3	Arsenic (As) ng /m^3	Nickel (Ni) ng/m^3
Plot-II Residential Colony	80.6	41.2	13.5	28.7	0.96	<10	<0.01	<20	< 2.0	BDL	< 2.0	< 2.0
O.P.C.B Standard	**≤ 100**	**≤ 60**	**≤ 80**	**≤ 80**	**≤ 4.0**	**≤100**	**<1.0**	**<100**	**< 5.0**	**< 1.0**	**< 6.0**	**< 20.0**