



Letter No. FAMD/FAPG/ENV/80/FY20

Date: 28/09/2019

The Member Secretary
State Pollution Control Board, Odisha,
Paribesh Bhawan,
A/118, Nilakanthanagar, Unit VIII,
Bubaneswar - 751 012

Subject: Submission of Environment Statement (Form-V) of High Carbon Ferro Chrome plant, (2X18) MVA Furnace for the financial year 2018-19.

Ref.: Environmental Clearance letter no. J-11011/55/2011-IA-II (I) dated 14th August 2012.

Dear Sir,

In line with compliance of above referred EC letter point no. xiv of general condition, please find attached herewith the Environmental Statement for the financial year 2018-19.

Thanking You,

Yours faithfully,
for TATA Steel Limited


(B Srinivas)
Head & Factory Manager

Encl.: a/a

CC:

✓ The Regional Officer
State Pollution Control Board, Odisha
Berhampur



TATA STEEL LIMITED

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Registered Office Bombay House 24 Homi Mody Street Fort Mumbai 400 001
Tel 91 22 66658282 Fax 91 22 66657724
Corporate Identity Number L27100MH1907PLC000260 Website www.tatasteel.com

FORM - V
ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING
31ST MARCH 2019

PART - A

| | |
|---|--|
| Name & address of the owner/ occupier of the industry, operation or process | T V Narendran CEO & Managing Director Tata Steel Limited Chamakhandi, Chatrapur Tehsil, Ganjam, Odisha |
| Industry categories | Large Scale Industry |
| Production Capacity | High Carbon Ferro Chrome (HCFC) 2X18 MVA Furnace - 55000 MTPA |
| Year of Establishment | 2016-17 |
| Date of last environmental statement submitted | 22 September 2016 |

PART - B

WATER AND RAW MATERIAL CONSUMPTION

I. Water Consumption (for 2X18 MVA): (M³ / Day)

Process : Nil

Cooling : Recycled water through cooling tower

Domestic : 87.4 m³/day (Drinking & clarified water)

| SN | Name of Product | Process water consumption per unit of product output | |
|----|--------------------------|--|-----------------------------------|
| | | During the previous financial year | During the current financial year |
| 1 | High Carbon Ferro Chrome | Water is not used in the process | Water is not used in the process |

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II. Raw Material Consumption:

| SN | Name of Product | Name of Raw Material | Consumption of raw material per unit of output | |
|----|---------------------------------|----------------------|---|--|
| | | | During the previous financial year 2017-18 (Tonnes) | During the current financial year 2018-19 (Tonnes) |
| 1 | High Carbon Ferro Chrome (HCFC) | Chrome Ore | 5302.04 | 41087.02 |
| | | Coke | 1326.900 | 8828.76 |
| | | Quartzite | 515.53 | 2551.77 |
| | | Bauxite | 1.160 | 2.00 |
| | | Magnesite | 86.42 | 497.45 |
| | | Molasses | 516.130 | 2263.67 |
| | | Lime | 183.620 | 1244.45 |
| | | Carbon Paste | 28.00 | 242.00 |
| | | Fluorite | 3 | 2 |
| | | Bauxite | 1.16 | 0 |

PART - C

POLLUTION DISCHARGED TO ENVIRONMENT PER UNIT OF OUTPUT

(Parameters as specified in the consent issued)

| SN | Pollutants | Quantity of pollutants discharged (Ton/Day) | Concentration of pollutants in discharges (mg/NM ³) | Percentage of variation from prescribed standard with reason |
|----|------------|---|---|--|
| A | Water | 0.00 | 0.00 | Zero discharge |
| B | Air: PM | 0.104 | 29.70 | Within the standard |
| | SOx | - | 0 | Within the standard |
| | NOx | - | 0 | Within the standard |

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PART - D

HAZARDOUS WASTES

AS SPECIFIED UNDER HAZARDOUS WASTES (MANAGEMENT, HANDLING AND TRANSBOUNDARY MOVEMENT) RULES, 2008 AND AMENDMENT THEREOF

| Hazardous Wastes | Total Quantity | |
|------------------------------------|--|---|
| | During the previous financial year 2017-18 | During the current financial year 2018-19 |
| a) From process | - | Used Oil / Spent Oil - 0.05 KL Waste / Residues Containing oil - Oil filter 04 KG |
| b) From pollution control facility | - | Flue dust from GCP of ferro Alloys Furnace - 320 MT (Recycled) |

PART-E

SOLID WASTES

| Sl. No. | Solid Waste | Total Quantity | |
|---------|--|--|--|
| | | During the previous financial year 2017 - 18 (Tonne) | During the current financial year 2018-19 (Tonnes) |
| a) | From process | 815.562 | 16140.267 |
| b) | From Pollution Control facility | NA | NA |
| c) | i. Quantity recycled or reutilized within the unit | 0.00 | 16875.267 (Used for plot development inside including previous stock) |
| | ii. Sold | NA | NA |
| | iii. Disposed | 815.562 | 80 |

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PART - F

PLEASE SPECIFY THE CHARACTERIZATION (IN TERMS OF COMPOSITION OF QUANTUM) OF HAZARDOUS WASTE AS WELL AS SOLID WASTE AND INDICATE DISPOSAL PRACTICE ADOPTED FOR BOTH THESE CATEGORIES OF WASTES

- A. **Hazardous Waste:** Only used oil and residue containing oil was generated which was collected in drums from the source and stored at the designated place and will be disposed as per the hazardous wastes (management, handling and transboundary movement) rules, 2008 and amendment thereof.
- B. **Characteristics (in terms of concentration and quantum) of solid waste**
Ferro chrome slag which is in lumpy form dumped in dump yard designated inside plant premises.

| Characteristics of Ferro Chrome Slag | |
|--------------------------------------|---------------|
| Parameter | Result (in %) |
| Cr ₂ O ₃ | 8-10 |
| SiO ₂ | 28-31 |
| MgO | 25-27 |
| FeO | 4-6 |
| Al ₂ O ₃ | 22-24 |
| CaO | 5-7 |

PART - G

IMPACT ON THE POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION

- Full-fledged Morden Dry Gas Cleaning Plant with Air Pulse Jet Bag Filter Technology (BFT) has been installed to clean process gas generated from furnace. Bag filters are also installed at briquetting plant to control dust emission during operation.
- Final dust of GCP is collected from silo in silo bags to control fugitive emission and the chrome dust is again reused 100% for briquette making.

Deliv. Feb.

- ✚ In plant control measures and, dust extraction system, fume extraction system, dry fog dust suppression system has been installed at vulnerable areas to reduce fugitive emission.
- ✚ Waste water utilization is continuing in regular activities like metal and slag cooling, road sprinkling, will be used in jigging plant, dust suppression and gardening.
- ✚ Cooling tower is completely recycled and cooling tower's blow down is treated in ETP and recycled.
- ✚ Maintenance of tree saplings is being carried out to ensure more than 90% survival rate.
- ✚ All internal roads inside the plant are made pucca to reduce dust emission.
- ✚ Side sheeting are given on sheds like bin building and briquetting plant to control cross wind and fugitive emission.
- ✚ A total of at least 147 MH and fluorescent lights replaced with LEDs for energy conservation of approx. 11KW/hour.
- ✚ At-least 2000 forestry saplings planted inside the plant premise. A total of 46000 forest trees planted at a survival rate more than 90%.
- ✚ Four numbers of ambient air quality monitoring stations installed to monitor air quality parameters and to take corrective action in-case of deviation from prescribed standard.
- ✚ Weather monitoring station is also installed for temperature, humidity, wind speed etc.
- ✚ Steel water bottles instead of plastic water s are in use to avoid plastic usage.

PART - H

Additional measures / investment proposal during 2019-20 for environmental protection including abatement of pollution and prevention of pollution

- ✚ Phase wise installation of LED lights in place of MH/HPSV lights for energy conservation.
- ✚ Green belt development over the year.
- ✚ Replacement in-case of old and damaged bags of GCP bag house with new ones to improve emission control.

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- ✦ Waste water utilization in jigging plant.
- ✦ Continuing environmental monitoring.
- ✦ Celebrating World Environment Day
- ✦ Training on EMS to create awareness

PART - I

Miscellaneous

Any other particulates in respect of environment protection and abatement of pollution

- ✦ Only PUC certified vehicles are engaged inside plant premise.
- ✦ World environment day celebrated.
- ✦ Continuous monitoring of stack inside control room for measuring SO_x, NO_x and SPM.
- ✦ Adoption of good housekeeping practices in which proper and systematic stacking and movement of materials is ensured.
- ✦ ETP and STP has been installed to treat domestic and industrial wastewater.



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