



To,
The Member Secretary,
Jharkhand State Pollution Control Board,
T.A. Bhawan, H.E.C. Campus, Dhurwa,
Ranchi - 834004 Jharkhand

Ref. No. - JMB/ENV/ESSA/05/ 717 /2022

September 28th, 2022

Sub: Annual Environment Statement in Form V for the FY-22

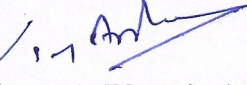
Dear Sir,

We are enclosing herewith Annual Environment Statement in Form-V for the FY-22 in respect of **Jamadoba Colliery** of M/s Tata Steel Limited, Jharia Division for your kind perusal.

Kindly acknowledge the receipt of the same.

Thanking you,

Yours faithfully,
For Tata Steel Limited


Head (Planning)

Received
Saty
28/9/2022
झारखण्ड राज्य प्रदूषण नियंत्रण मण्डल
क्षेत्रीय कार्यालय
जमशेदपुर

CC: Regional Officer, Jharkhand State Pollution Control Board, HIG.-1 Sardar Patel Nagar,
Housing Colony, Hirapur, Dhanbad (Jharkhand).

TATA STEEL LIMITED

Jharia Collieries Jamadoba 828 112 Dhanbad India
Tel 91 326 2320263/2320265/2320267 Fax 91 326 2320268
Regd. 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 (See rule – 14)

Environmental Statement for the financial year ending the 31st March -2022

Jamadoba Colliery

PART – A

| | |
|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| 1.Name and address of the owner/ occupier of the : industry/ operation or process | Jamadoba Colliery |
| Manager : | Mr. Manoj Kumar Head (Jamadoba Colliery) Tata Steel Ltd., P.O.- Jamadoba Dist.- Dhanbad, Jharkhand-828112 |
| Nominated Owner : | Mr. T.V.Narendran CEO&MD, Tata Steel Ltd Jamshedpur, Dist- East Singhbhum Jharkhand – 831 001 |
| 2.Industry category: Primary (STC Code) Secondary (STC Code) | -- |
| 3.Production Capacity – Units | 0.315 MTPA – Raw coal |
| 4.Year of Establishment | 1918 |
| 5.Date of the last environmental statement submitted | 28 th September 2021 (Vide Letter No.JMB/ENV/ESSA/05/730/2021) |

PART – B

Water and Raw Material Consumption

• **Water Consumption M³ / day.**

| | Water consumption in 2020-2021 | Water consumption in 2021-2022 |
|-------------------|---------------------------------------|---------------------------------------|
| Process | Not Applicable | Not Applicable |
| Industrial | Included in Jamadoba Washery | 17.66 M ³ /day |
| Domestic | 3837.86 M ³ /day | 3685.7 M ³ /day |
| Other | Not Applicable | Not Applicable |

| Sl. No | Name of the products | Process water consumption per unit of product output. | |
|---------------|-----------------------------|--------------------------------------------------------------|----------------------------------------------------|
| | | During the previous financial year 2020-2021 | During the current financial year 2021-2022 |
| 1. | Raw Coal | Not Applicable | Not Applicable |

FORM – V (See rule – 14)**Environmental Statement for the financial year ending the 31st March -2022****Jamadoba Colliery****Raw Material Consumption**

| Sl. No | Name of the Raw Material | Name of the product | Raw Materials consumption per unit production output. | |
|--------|--------------------------|---------------------|-------------------------------------------------------|---------------------------------------------|
| | | | During the previous financial year 2020-2021 | During the current financial year 2021-2022 |
| 1. | Explosives | Raw Coal | 0.63 Kg/Tonne | 0.55 Kg/Tonne |
| 2. | Detonators | | 1.27 Nos/Tonne | 1.04 Nos/Tonne |

*Industries may use codes if disclosing details of raw materials would violate contractual obligation, otherwise all industries have to name the raw materials used.

PART – C**Pollution discharged to environment / unit of output.****(Parameter as prescribed in the consent issued)**

| Sl. No | Pollution | Quantity of pollutants discharged (mass/ day) | | Concentration of pollutants in discharges (Mass/Volume) | | Percentage of variation from prescribed standard with reason. |
|--------|-----------|----------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| A. | AIR | PM ₁₀ Level : 24 Hourly Limit- 100µg/m ³ | PM _{2.5} Level : 24 Hourly Limit- 60µg/m ³ | SO ₂ Level: 24 Hourly Limit- 80µg/m ³ | NO ₂ Level: 24 Hourly Limit- 80µg/m ³ | Ambient air quality is being measured and all values are within limits as per NAAQS, 2009. |
| | | 77.96 | 39.35 | 11.31 | 12.24 | |
| B. | WATER | Parameter | Results | Unit of measure | Limit | The quality of mine water is being measured on monthly basis and all values are within the limits. Average value for FY22 is provided here. |
| | | pH | 7.5 | pH | 5.5-9.0 | |
| | | Total Suspended Solid | 11.9 | mg/ltr. | 100 | |
| | | Total Dissolved Solid | 723.6 | mg/ltr. | 2100 | |
| | | Biological Oxygen Demand | 4.0 | mg/ltr. | 30 | |
| | | Chemical Oxygen Demand | 16.0 | mg/ltr. | 250 | |
| | | Oil & Grease | 0.8 | mg/ltr. | 10 | |

The colliery does not have any single point source of air pollution. Hence, quantitative estimation of air pollutants discharged in Kg/day cannot be ascertained.

FORM – V (See rule – 14)

Environmental Statement for the financial year ending the 31st March -2022

Jamadoba Colliery

PART – D

Hazardous Wastes

(as specified under The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016)

| Sl No | Hazardous Waste | Total Quantity (Kg.) | |
|-------|---------------------------------|----------------------------------------------|---------------------------------------------|
| | | During the previous financial year 2020-2021 | During the current financial year 2021-2022 |
| 1. | From process Used Oil | 1046.2 Litres | 5010.9 Litres |
| 2. | From pollution control facility | - | - |

PART – E

Solid Wastes

| Sl No | Solid Wastes | Total Quantity (Kg.) | |
|-------|-----------------------------------------------------------------------------------------------|----------------------------------------------|---------------------------------------------|
| | | During the previous financial year 2020-2021 | During the current financial year 2021-2022 |
| 1. | Steel Scrap and other materials (conveyor belt, cable pieces waste) collected from U/G mines. | 315.00 Tonnes | 347.92 Tonnes |
| 2. | Quantity recycled or reutilized within the unit/ sold/ disposed | All scraps sold to vendors | All scraps sold to vendors |

PART – F

Please specify the characterization (in term of composition and quantum) of hazardous as well as solid wastes and indicate disposal practices adopted for both these categories of wastes.

| Category of Waste | Characteristics | Quantity | Disposal Practice |
|----------------------------------------------------------------|-------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------|
| Solid Waste • Steel Scrap and other materials | Solid | 347.92 Tonnes | Steel scrap and other solid wastes, which is mentioned here sent to central scrap yard for segregation and disposal to vendors. |
| Hazardous Waste • Used Oi | Used Oil (Liquid) | 5010.9 Litres | Hazardous wastes are disposed off to registered recyclers according to applicable Hazardous Wastes Management Rules. |

FORM – V (See rule – 14)

Environmental Statement for the financial year ending the 31st March -2022

Jamadoba Colliery

PART – G

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

| S. No. | Environment Management Activity | Expenditure in Lakhs |
|---------------|---------------------------------------------------------------------------------------------------|-----------------------------|
| 1 | Stowing activities i.e filling of U/G voids for surface protection and prevention of subsidence | 388.99 |
| 2 | Fire Control measures (Fire/Isolation Stopping and Nitrogen plant) | 20.00 |
| 3 | Goaf Filling activities, drain repairing and maintenance, settling tank maintenance jobs | 9.45 |
| 4 | Water spraying costs in underground and surface | 15.12 |
| 5 | Making potable water in Water Treatment Plant & Supply to colonies | 224.0 |
| 6 | Horticultural activities including green belt development and regular lawn and garden maintenance | 16.55 |
| 7 | Plantation of saplings and maintenance | 2.18 |
| 8 | Operation and maintenance of sewage treatment plant | 6.80 |
| 9 | Environmental Monitoring & Scientific studies | 8.40 |
| | Total Cost incurred | 691.41 |

Total annual expenditure incurred towards environmental protection is Rs. **691.49** lakh.

Annual raw coal production of the plant during the year is approx **2.55 lakh tonnes**.

So, the impact of the pollution abatement measures, and environment protection shall be **Rs. 271.11 per ton** of raw coal production.

PART – H

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

Jharia Division of Tata Steel Ltd. is committed to improve safety and environment by strictly practicing Environmental Management System of company. Various programs are arranged such as World Environmental day, Annual Flower Show for public awareness. Also, various initiatives for biodiversity enhancement in the region have been taken such as Bird Niche Nesting, Development of Butterfly garden, Medicinal Garden, Nursery development of native species, etc. Tree plantation will be continued in the leasehold area. Water pumped out of the mine will continue to be used in washery other than use in stowing. Two Effluent Treatment Plants based on MBBR technology have been commissioned with capacity of 10 KLD each for canteen wastewater and workshop effluents treatment.

FORM – V (See rule – 14)

Environmental Statement for the financial year ending the 31st March -2022

Jamadoba Colliery

PART – I

Any other particulars for improving the quality of environment

- We are providing safe drinking water from our water treatment plant & MADA to our employees.
- We are regularly sprinkling water in an around the units, to suppress dust.
- We provide dust mask to our employees to prevent exposure to dust in underground mines.
- Our welfare department arranges to clean the domestic garbage's from our colonies to provide better environment.
- Regular monitoring of Air Quality & mine water analysis by our separate environment management cell.
- We have already done the tree plantation job and this is a continuous process in company leasehold areas.
- Regular thrust on Environment awareness conducting training classes at P.T.I., Jamadoba.
- We are an IMS certified unit (ISO 9001:2015, 14001:2015 and 45001:2018 certified) along with SA: 8000 (Social Accountability)

Name of Unit – Jamadoba Colliery

Mamij/Chauhan
**Head, Jamadoba Colliery
TATA STEEL LIMITED**

**HEAD
JAMADOBA COLLIERY**