GOA STATE POLLUTION CONTROL BOARD

FORM V

(See Rule 14)

Environmental Statement for the financial year ending on 31st March on or before 30th of September every year.

PART A

(i)	Name and address of the owner/ occupier of the industry operation or process	:	Vedanta Ltd, Met coke Division Ii and Waste heat recovery power plant I
(ii)	Industry category Primary-(STC Code) Secondary-(STC Code)	:	RED, Coke making , liquefaction, coal tar distillation or fuel gas making
(iii)	Production capacity	:	3,22,000 T/year Metallurgical Coke. 33 MW Generation of Power Tonnes Number

Production Name	Production Capacity	Production Unit
Metallurgical Coke	322000	Metric Tonnes/Year
Generation of power	33	Megawatt

(iv)	Year of establishment	:	April 1995
(v)	Date of the last environment statement submitted	:	28/09/2022

PART B

1. Water consumption m3/ d

Process : Met Coke Division#1- NIL, Waste Heat Recovery Power Plant#1- 59.61 m3/day

Cooling : Met Coke Division#1- 512.88 m3/day, Waste Heat Recovery Plant#1- 1756.84 m3/day

Domestic : Met Coke Division#1- 206.67 m3/day, Waste Heat Recovery Plant#1- 2 m3/day

Name of products	Process water consumption per unit of product output	
	During the previous financial year	During the current financial year
Metallurgical Coke	For Coke Quenching 0.92 m3 /t Coke	For Coke Quenching 0.90 m3 / t Coke
Power from waste heat of COFG and BFG	0.093 m3 water for 1MWhr Power	0.139 m3 water for 1MWhr Power

2. Raw material consumption

Name of raw materials	Name of products	Consumption of raw material per unit	
		During the previous financial year	During the current financial year
Coking Coal	Metallurgical Coke	1318 Kg/T of product	1328 Kg/T of product

Waste heat of Coke Oven flue gas and blast furnace gas	Power from waste heat of COFG & BFG of Vedanta units PID & MCD	3.830 Mil kcal for 1 MWh generation	3.863 Mil Kcal for 1 MWH generation

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

PART C

Pollution discharged to environment/ unit of output.

Pollution	**Quantity of pollutants discharged(mass/day)**	**Concentration of pollutants in discharges(mass/volume)**	**Percentage of variation from prescribed standards with reasons**
Water			
Water	Met Coke Division- No effluents discharged	NIL (No effluents discharged)	NIL (No effluents discharged)
Water	PP1- Avg. Cooling Tower Blow down is 139.11 m3/day	Monitoring is carried out as per consent conditions and the results are within permissible limits. The reports are submitted to GSPCB.	NIL
Air			
Air	MCD1: Nil as flue gas is let out through waste heat recovery power plant (WHRPP) stacks.	NIL	NIL
Air	WHRPP-1: Monitoring is carried out as per consent conditions and the results are within permissible limits. The reports are submitted to GSPCB.	Well within permissible limits	NIL

Name of Pollutants : .

PART D

Hazardous Wastes

(as specified under Hazardous Wastes (Management and Handling) Rules, 1989)

Hazardous Wastes	**Total Quantity (Kg)**	
	During the previous financial year	**During the current financial year**
(a) From process	**Used Oil: Qty Generated – 2.43 MT Dispatched Qty – 1.23 MT, Cotton waste: Generated Qty -0.02 MT Dispatched Qty -0.02 MT, Paint tins/empty barrels: Generated Qty - 3 MT, Dispatched Qty -3.38 MT**	**Used Oil: Qty Generated – 1.87 MT Dispatched Qty – 1.25 MT. Cotton waste: Generated Qty -0.28 MT, Dispatched Qty -0.28 MT. Paint tins/empty barrels: Generated Qty – 1.413 MT, Dispatched Qty- 0.279MT**

(b) From pollution control facilities	**NA**	**NA**

PART E
Solid Wastes

	Total Quantity	
	During the previous financial year	**During the current financial year**
(a) From process	**NIL**	**NIL**
(b) From pollution control facility	**NIL**	**NIL**
(c)(1) Quantity recycled or re-utilised within the unit	**NIL**	**NIL**
(2) Sold	**NIL**	**NIL**
(3) Disposed	**NIL**	**NIL**

PART F

Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes - Used oil is stored in empty oil barrels in an earmarked area/designated place and same is sent for disposal to authorized vendor.
- Cotton waste is disposed within plant at Met Coke Division for incineration as per consent condition.
- Paint Tins are stored in the designated place and same is disposed through authorized vendor.
- Form-4 submitted to GSPCB on 16/06/2023

.

PART G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production 1. De-dusting system present for Coke screening plant for effective suction of dust at source level
2. The water used for coke quenching is recycled & recirculated, after settling in the tanks.
3. Ambient Air Quality monitoring station installed at different places, monitoring is carried out twice a week for all 12 parameters as per NAAQS and reports are submitted to Pollution Control Board on monthly basis.
4. Dry fog systems are installed for dust suppression in the coke handling area
5. Roads are sprayed to avoid fugitive dust emissions and road sweeping machines are also used.
6. Roads are asphalted to reduce the fugitive emissions during vehicle movements.
7. Plantation drive carried out in monsoon season
8. At coke screening plant, transfer point type bag filters are installed.
9. Grit arrestors provided at quench tower.
10. Sewage treatment plant (30 KLD) is installed.
11. Data from Continuous Ambient Air Quality Monitoring System (CAAQMS) is communicated to GSPCB on real time basis
12. Sprinkling system are set up in coke yard
13. Windshields have been set up along the coke yard.
14. Waste Heat Recovery Power Plant utilizes waste heat from coke Oven Flue Gases (COFG) from Coke Plant & Blast Furnace (BFG) from Pig Iron Plant to generate clean power. This project is qualified as Clean Development Mechanism (CDM) under UNFCCC (Kyoto Protocol)
15. The excess Power Generated is given to Goa Electricity (GED) which helps the state of Goa to meet part of Power Requirement. .

PART H

Additional measures/ investment proposal for environmental protection abatement of pollution, prevention of pollution 1. WHRPP utilizes waste heat from to produce clean Power. This helps in prevention of pollution and conservation of natural resources,
2. Flue gas from Non Recovery coke ovens are used to generate waste heat recovery power plant. .

PART I

Any other particulars for improving the quality of the environment .

Remarks : .