



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 : N L Vhatte
- (ii) Industry category Primary-(STC Code) : RED, Coke making , liquefaction, coal tar distillation or fuel gas making
Secondary-(STC Code)
- (iii) Production capacity : Tonnes

Production Name	Production Capacity	Production Unit
Metallurgical Coke	300000	Metric Tonnes/Year
Generation of Power	35 MW	Megawatt

- (iv) Year of establishment : March 2012
- (v) Date of the last environment statement submitted : 04/08/2021

PART B

1. Water consumption m³/ d

Process : Waste Heat Recovery Power Plant#2: 129.61 m³/day, Met Coke Expansion Plant- Nil

Cooling : Waste Heat Recovery Power Plant#2: 2053.79 m³/day, Met Coke Expansion Plant- 618.43 m³/day

Domestic : Waste Heat Recovery Power Plant#2:- 2m³/day, Met Coke Expansion Plant- 6.082 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 1 m ³ / t Coke	For Coke Quenching 1 m ³ / t Coke
Power from waste heat of COFG and BFG	0.265 m ³ for 1 MWh power Generation	0.206 m ³ for 1 MWh power Generation

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	1320 Kg/T of product	1317 Kg/T of product

Waste heat of Coke Oven flue gas and blast furnace gas	Power generation	3.871 Mil kcal for 1 MWh generation	3.622 Mil kcal for 1 MWh generation
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*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	Waste Heat Recovery Power Plant#2- Average Cooling Tower Blow down is 157.87 m3/day	Well within permissible limits	NIL (Well within permissible limits)
Water	Met Coke Expansion Plant- No effluents discharged	NIL (No effluents discharged)	NIL (No effluents discharged)
Air			
Air	Met Coke Expansion Plant- Nil as flue gas is let out through WHRPP (waste heat recovery power plant) stack.	Not Applicable	Not Applicable
Air	Waste Heat Recovery Power Plant#2- Monitoring carried out as per Consent conditions and is within permissible limit, and results submitted to GSPCB	Well within permissible limits	NIL (Well within permissible limits)

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: Generated Qty -3.24 MT & disposed Qty -3.58 MT Cotton waste: Generated Qty -0.150 MT & Dispatched Qty 0.150 MT Paint Tins/empty barrels: Generated qty - 0.478 MT & Disposed Qty - 0.478 MT	Used Oil: Generated Qty -4.89 MT Disposed Qty -3.24 MT Cotton waste: Generated Qty -0.22 MT & Dispatched Qty 0.22 MT Paint Tins/ empty barrels: Generated qty- 2.845 MT & Disposed Qty - 1.835 MT
(b) From pollution control facilities	NIL	NIL

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 09/06/2022.

PART G

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

1. Installation of Dedusting Systems at MCD Battery 2 for effective suction of dust generated during screening

2. The water used for coke quenching is recycled & recirculated, after settling in the tanks.

3. Grit arrestors provided at quench tower.

4. 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.

5. Dry fog systems are installed for dust suppression in the coke handling area

6. Coke Oven Flue Gas (COFG), having sensible heat, is utilized for generating Clean Power, using Waste Heat Recovery Boiler (WHRB).

7. Plantation carried out during monsoon season.

8. Bag filters provided for Coke Screening Plant for effective suction of dust at source level.

9. Data from Continuous Ambient Air Quality Monitoring System (CAAQMS) is communicated to CPCB & GSPCB on real time basis

10. Sprinkling system are set up in coke yard.

11. Windshields have been set up along the coke yard.

12. This is a clean Technology as WHRB PP is designed to operate on waste gases of Coke Oven Plant and the Blast Furnace, to generate Power.

13. The excess Power Generated is evacuated to Goa Electricity (GED) which helps the state of Goa to meet part of Power Requirement.

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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.

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PART I

Any other particulars for improving the quality of the environment .

Remarks : .