



**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 : Sunil Dugal
- (ii) Industry category Primary-(STC Code) : RED, Iron & Steel (involving processing from ore/ integrated steel plants) and or Secondary-(STC Code) : Sponge Iron units
- (iii) Production capacity : 5,40,000 T / Year of Pig Iron & 1 MTPA Sinter Plant Tonnes

Production Name	Production Capacity	Production Unit
Pig Iron	5,40,000 T / Year	Metric Tonnes/Year
Sinter	1 MTPA	Metric Tonnes/Year

- (iv) Year of establishment : 2012
- (v) Date of the last environment statement submitted : 31/07/2021

**PART B**

1. Water consumption m3/ d

Process : NA

Cooling : 3318.32 m3/day

Domestic : 57.1 m3/day

Name of products	Process water consumption per unit of product output	
	During the previous financial year	During the current financial year
Pig Iron	Process water- NA	Process water- NA
Pig Iron	Cooling Water- 2.5987 m3/t of Pig Iron (Cooling water is inclusive of slag granulation, pig cooling, O2/N2 cooling; BF stove cooling, dust suppression and Sinter plant usage)	Cooling Water- 2.333 m3/t of Pig Iron (Cooling water is inclusive of slag granulation, pig cooling, O2/N2 cooling; BF stove cooling, dust suppression and Sinter plant usage)

2. Raw material consumption

Name of raw materials	Name of products	Consumption of raw material per unit
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		During the previous financial year	During the current financial year
Metallurgical Coke	Pig Iron	526.85 Kg/T of product	467.39 Kg/T of product
Lumpy High Grade Ore	Pig Iron	286.26 kg/THM of product	361.84 kg/T of product
Limestone	Pig Iron	0.47 Kg/THM of product	9.48 Kg/T of product
Dolomite	Pig Iron	34.84 Kg/THM of product	23.38 Kg/T of product
Manganese Ore	Pig Iron	0.06 Kg/T of product	0 Kg/T of product
Siliceous ore/Quartz	Pig Iron	33.36 Kg/THM of product	8.21 Kg/T of product
Sinter	Pig Iron	1466.69 Kg/THM of product	1377.42 Kg/T of product
Pulverized coal	Pig Iron	80.08 Kg/THM of product	121.58 Kg/T of product
Coke Breeze	Sinter	58 Kg/T of product	58 Kg/T of product
Limestone & Dolomite Fines	Sinter	1 kg/T of product	2 kg/T of product
Quick lime	Sinter	25 Kg/T of product	30 Kg/T of product
Sinter Dust & Sinter Fines (-5mm)	Sinter	41 Kg/T of product	25 Kg/T of product
Flue dust from Blast Furnace	Sinter	13 Kg/T of product	10 Kg/T of product
Mill scale	Sinter	4 Kg/T of product	2 Kg/T of product
Ti-Fe Ore	Sinter	0.05 Kg/THM of product	0 Kg/T of product
High Grade Low Mn Iron Ore Fines	Sinter	393 Kg/T of product	674 Kg/T of product
Low Grade Iron Ore Fines	Sinter	528 Kg/T of product	262 Kg/T of product
Limestone	Sinter	98 Kg/T of product	102 Kg/T of product
Dolomite	Sinter	50 Kg/T of product	49 Kg/T of product
Pig Iron 10/-50 mm Goli & -10mm Goli	Sinter	19 Kg/T of product	18 Kg/T of product

\*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.

<b>Pollution</b>	<b>Quantity of pollutants discharged(mass/day)</b>	<b>Concentration of pollutants in discharges(mass/volume)</b>	<b>Percentage of variation from prescribed standards with reasons</b>
<b>Water</b>	<b>Process water generated is recycled and reused in process. No water is discharged out side the plant. No effluents is discharged either from Blast Furnaces or Sinter Plant</b>	<b>NIL (No discharge)</b>	<b>NIL (No discharge)</b>
<b>Air</b>	<b>Monitoring carried out as per Consent conditions and is within permissible limit, and results submitted to GSPCB</b>	<b>Monitoring carried out as per Consent conditions and is within permissible limit, and results submitted to GSPCB</b>	<b>NIL (Well within permissible limits)</b>

Name of Pollutants : .

### **PART D Hazardous Wastes**

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

<b>Hazardous Wastes</b>	<b>Total Quantity (Kg)</b>	
	<b>During the previous financial year</b>	<b>During the current financial year</b>
<b>(a) From process</b>	<b>From maintenance: 1. Used oil-Generated qty= 1.76 MT Dispatched qty – 1.93 MT 2. Cotton waste – Generated qty 0.514 MT, Dispatched qty is 0.514 MT 3. Paint Tins generated qty -2.1216 MT, Dispatched qty -2.0666 MT</b>	<b>From maintenance: 1. Used oil-Generated qty= 13.22 MT Dispatched qty – 14.79 MT 2. Cotton waste – Generated qty 1.353 MT, Dispatched qty is 1.353 MT 3. Paint Tins generated qty- 4.985 MT, Dispatched qty -3.988 MT</b>
<b>(b) From pollution control facilities</b>	<b>NA</b>	<b>NA</b>

### **PART E Solid Wastes**

	<b>Total Quantity</b>	
	<b>During the previous financial year</b>	<b>During the current financial year</b>
<b>(a) From process</b>	<b>165735.36 MT</b>	<b>232835.27 MT</b>
<b>(b) From pollution control facility</b>	<b>Flue Dust BF3-6751.049 MT, Sinter Dust -32730.225 MT</b>	<b>Flue Dust BF3- 8,318.01 MT MT, Sinter Dust -31155 MT</b>
<b>(c)(1) Quantity recycled or re-utilised within the unit</b>	<b>43,031.76 MT</b>	<b>35,570.90 MT</b>
<b>(2) Sold</b>	<b>Nil</b>	<b>Slag sold= 2,60,236 MT</b>
<b>(3) Disposed</b>	<b>Nil</b>	<b>Nil</b>

### **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 1. Hazardous Waste: 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.

Paint Tins/Empty barrels are stored in the designated place and same is disposed through authorized vendor.

2. Dust from de-dusting system & dry GCP – The dust is collected and used as raw material to produce sinter at Sinter Plant. Also, the slurry obtained from PCM is dried and used in sinter.

### **PART G**

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production -Installed Automated & integrated Fogging System at sinter plant for dust suppression in quick lime handling

-Asphalting of roads within plant is going on in phased manner

-Dry Gas Cleaning plant has helped in reducing water consumption.

-De-dusting unit is installed at cast house and stock house.

-The dust collected from Bag house/Dedusting unit is used as raw material in sinter plant

-Water is harvested in Pits during monsoon for effective utilization of water resource for process

- Water sprinkling on roads is done to prevent fugitive dust emissions.

- Plantation is carried out during monsoon season.

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### **PART H**

Additional measures/ investment proposal for environmental protection abatement of pollution, prevention of pollution -Rain guns are installed in raw material yard & Dispatch yard to prevent the fugitive dust.

-Phase wise roads asphlatation work in progress

-Road sweeping machines are used to prevent fugitive dust emissions. .

### **PART I**

Any other particulars for improving the quality of the environment •Plantation is carried out during Monsoon season.

•Some of the roads are concreted & the roads are sprayed with water for dust suppression regularly

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Remarks : .