



Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

FORM V

(See Rule 14)

Environmental Audit Report for the financial Year ending the 31st March 2022

Unique Application Number

MPCB-ENVIRONMENT_STATEMENT-0000049348

Submitted Date

29-09-2022

PART A

Company Information

Company Name

GMR Warora Energy Ltd

Application UAN number

00000027850

Address

PLOT NO B1 TO B7, MOHBALA MIDC
GROWTH CENTER

Plot no

PLOT NO B1 TO B7

Taluka

Warora

Village

Warora

Capital Investment (In lakhs)

418915

Scale

Large

City

Warora

Pincode

442907

Person Name

Mr. Pramod Khandelwal

Designation

General Manager

Telephone Number

8390903524

Fax Number

07176267070

Email

Pramod.Khandelwal@gmrgroup.in

Region

SRO-Chandrapur

Industry Category

Red

Industry Type

R9 Power generation plant [except Wind and Solar
renewable power plants of all capacities and Mini
Hydel power plant of capacity <25MW]

Last Environmental statement submitted online

yes

Consent Number

Format1.0/CAC/UAN
No.0000140106/CR/2209001860

Consent Issue Date

2022-09-29

Consent Valid Upto

2024-12-31

Establishment Year

2014

Date of last environment statement submitted

Sep 28 2021 12:00:00:000AM

Industry Category Primary (STC Code) & Secondary (STC Code)

Product Information

Product Name

Electricity Generation

Consent Quantity

600

Actual Quantity

3498227

UOM

Mwh

By-product Information

By Product Name

NIL

Consent Quantity

0

Actual Quantity

0

UOM

MT/A

Part-B (Water & Raw Material Consumption)

1) Water Consumption in m3/day

Water Consumption for Process	Consent Quantity in m3/day	Actual Quantity in m3/day
Cooling	44448	19466.02
Domestic	3408	2598.21
All others	480	332.56
Total	0	0.00
	48336	22396.79

2) Effluent Generation in CMD / MLD

Particulars	Consent Quantity	Actual Quantity	UOM
Trade Effluent	12446	433.90	CMD
Domestic Effluent	24	12.40	CMD

2) Product Wise Process Water Consumption (cubic meter of process water per unit of product)

Name of Products (Production)	During the Previous financial Year	During the current Financial year	UOM
Electricity	2.36	2.35	Mwh

3) Raw Material Consumption (Consumption of raw material per unit of product)

Name of Raw Materials	During the Previous financial Year	During the current Financial year	UOM
Coal	0.634	0.662	MT/MWH

4) Fuel Consumption

Fuel Name	Consent quantity	Actual Quantity	UOM
Oil Consumption	25920	588.65	KL/A

Part-C

Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)

[A] Water

Pollutants Detail	Quantity of Pollutants discharged (kL/day)	Concentration of Pollutants discharged(Mg/Lit) Except PH,Temp,Colour	Percentage of variation from prescribed standards with reasons	Standard	Reason
	Quantity	Concentration	%variation		
TDS	303.04	698.41	0	2100	NA
TSS	5.78	13.33	0	100	NA
BOD	4.05	9.34	0	30	NA
COD	13.73	31.66	0	250	NA
O & G	00	00	0	10	NA

[B] Air (Stack)

Pollutants Detail	Quantity of Pollutants discharged (kL/day)	Concentration of Pollutants discharged(Mg/NM3)	Percentage of variation from prescribed standards with reasons	Standard	Reason
	Quantity	Concentration	%variation		
Particulate Matter	1090.98	37.0	0	50	NA

SOx	33466.00	1135.0	0	600	NA
NOx	8138.19	276.0	0	450	NA

Part-D

HAZARDOUS WASTES

1) From Process

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
3.3 Sludge and filters contaminated with oil	0.540	0.440	MT/A
5.1 Used or spent oil	11.22	11.0	KL/A
5.2 Wastes or residues containing oil	1.040	0.360	MT/A
33.1 Empty barrels /containers /liners contaminated with hazardous chemicals /wastes	2.88	9.270	MT/A
35.2 Spent ion exchange resin containing toxic metals	0.103	0.0	MT/A
35.3 Chemical sludge from waste water treatment	2.3	2.120	MT/A
35.4 Oil and grease skimming	2.0	2.790	MT/A

2) From Pollution Control Facilities

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
0	0	0	

Part-E

SOLID WASTES

1) From Process

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
Ash	834198	820808	MT/A

2) From Pollution Control Facilities

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
NA	0	0	MT/A

3) Quantity Recycled or Re-utilized within the unit

Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
0	0	0	MT/A

Part-F

Please specify the characteristics(in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

1) Hazardous Waste

Type of Hazardous Waste Generated	Qty of Hazardous Waste	UOM	Concentration of Hazardous Waste
3.3 Sludge and filters contaminated with oil	0.410	MT/A	0
5.1 Used or spent oil	9.630	KL/A	0
5.2 Wastes or residues containing oil	0.200	MT/A	0

33.1 Empty barrels /containers /liners contaminated with hazardous chemicals /wastes	8.850	MT/A	0
35.2 Spent ion exchange resin containing toxic metals	0.0	MT/A	0
35.3 Chemical sludge from waste water treatment	2.120	MT/A	0
35.4 Oil and grease skimming	2.523	MT/A	0

2) Solid Waste

Type of Solid Waste Generated	Qty of Solid Waste	UOM	Concentration of Solid Waste
NA	0	set/month	0

Part-G

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

Description	Reduction in Water Consumption (M3/day)	Reduction in Fuel & Solvent Consumption (KL/day)	Reduction in Raw Material (Kg)	Reduction in Power Consumption (KWH)	Capital Investment(in Lacs)	Reduction in Maintenance(in Lacs)
Compressed Air System Energy Conservation through installation of Intelligent Flow Controller	0	0	0	232505	18.6	8.14
ID Fan 2A & 2B Auxiliary Power Consumption reduction through Energy Efficient & Anti-erosion Impeller Coating	0	0	0	814816	10	28.52
AHP Auxiliary Power Consumption Reduction through Cycle Time Optimization	0	0	0	435583	122.5	19.60
Auxiliary Power Consumption Reduction through Post Cooler Belt Replacement	0	0	0	290389	183.7	13.07
APC reduction through ID Fan Power Consumption optimization by Ceramic Tiles Coating in Flue Gas duct for mitigating erosion & duct leakages	0	0	0	2444448	16.8	85.56
U2 BFP Power Consumption Optimization by Replacement of Existing Valve with Modified RC Valve	0	0	0	987779	22.6	34.57
Power Savings through 3 Mill operation in Unit-1	0	0	0	453408	00	15.87
Heat Rate Improvement Through CT Fills Replacement	0	0	14728590	0	122.7	487.52
Heat Rate Improvement Through CT Nozzles Replacement	0	0	1636510	0	12.1	54.17
Boiler Efficiency improvement by CAVT Test & Attending Duct Leakages	0	0	6996300	0	29.2	231.58

Boiler Efficiency Improvement through APH-2A & 2B Seal replacement	0	0	2332100	0	11.7	77.19
Boiler Efficiency Improvement through Boiler Water Washing & Jet Cleaning	0	0	9328400	0	35.0	308.77
Boiler Efficiency Improvement through Coal Mills Clean Air Test, Dirty Air Test & Orifice Overhauling & adjustment	0	0	1399000	0	14.6	46.32
Boiler Efficiency improvement through Coal Burner Nozzle replacement with modified nozzles	0	0	2332000	0	46.7	77.19
Heatrate Improvement through rectification of Valves passing	0	0	932840	0	8.8	30.88
Improvement in RO Recovery	122688	0	0	358950	0	16.03

Part-H

Additional measures/investment proposal for environmental protection abatement of pollution, prevention of pollution.

[A] Investment made during the period of Environmental Statement

<i>Detail of measures for Environmental Protection</i>	<i>Environmental Protection Measures</i>	<i>Capital Investment (Lacks)</i>
Efficient and smooth House Keeping in side the plant to take care of fugitive emission and proper waste segregation, collection and disposal	Housekeeping and waste Management	205
Efficient Ash Handling System	Proper Handling and utilization of ash by sending the same to cement plants	645
Maintenance of Green Belt	Proper maintenance of the green covering and plantation	160
Regular Environmental Monitoring	Monitoring & Measurement	24

[B] Investment Proposed for next Year

<i>Detail of measures for Environmental Protection</i>	<i>Environmental Protection Measures</i>	<i>Capital Investment (Lacks)</i>
Efficient and smooth House Keeping in side the plant to take care of fugitive emission and proper waste segregation, collection and disposal	Housekeeping and waste Management	210
Efficient Ash Handling System	Proper Handling and utilization of ash by sending the same to cement plants	650
Maintenance of Green Belt	Proper maintenance of the green covering and plantation	165
Regular Environmental Monitoring	Monitoring & Measurement	27

Part-I

Any other particulars for improving the quality of the environment.

Particulars

As a Environment Conscious unit we always strive to protect the Environment

Name & Designation

Mr. Pramod Khandelwal, General Manager

UAN No:

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Submitted On:

29-09-2022