



# Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

## FORM V

Environmental Audit Report for the financial Year ending the 31st March 2019

### Unique Application Number

MPCB-ENVIRONMENT\_STATEMENT-0000017008

### Submitted Date

24-07-2019

### Company Information

#### Company Name

Vidarbha Industries Power Limited

#### Application UAN number

MPCB-CONSENT-0000009307

#### Address

D-3, MIDC, Butibori, Nagpur, District - Nagpur.

#### Plot no

D-3, D3Part. D3 Part-I

#### Taluka

Hingna

#### Village

Butibori,

#### Capital Investment (In lakhs)

466038

#### Scale

Red

#### City

Nagpur.

#### Pincode

441122

#### Person Name

Sanjay Jumle

#### Designation

AVP(EHS)

#### Telephone Number

9373754588

#### Fax Number

0

#### Email

sanjay.jumle@relianceada.com

#### Region

SRO-Nagpur II

#### Industry Category

Red

#### Industry Type

R48 Thermal Power Plants

#### Last Environmental statement submitted online

yes

#### Consent Number

Format1.0/BO/CAC-Cell/AutoRenewal/CAC-0101

#### Consent Issue Date

06/02/2017

#### Consent Valid Upto

31/08/2021

### Product Information

#### Product Name

Electricity Generation((Coal Based Thermal Power Plant)

#### Consent Quantity

600MW (2x300MW)

#### Actual Quantity

2212667.9

#### UOM

Mwh

### By-product Information

#### By Product Name

NA

#### Consent Quantity

NA

#### Actual Quantity

NA

#### UOM

CMD

### 1) Water Consumption in m3/day

#### Water Consumption for Process

#### Consent Quantity in m3/day

3600

#### Actual Quantity in m3/day

42

#### Cooling

34560

19924

#### Domestic

60

48

#### All others

600

0

#### Total

38820

20013

### 1) Effluent Generation in CMD / MLD

#### Particulars

#### Consent Quantity

#### Actual Quantity

#### UOM

ETP+CW	7608	2660	CMD
Domestic Effluent	40	39.77	CMD

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

<b>Name of Products (Production)</b>	<b>During the Previous financial Year</b>	<b>During the current Financial year</b>	<b>UOM</b>
Electricity Generation (Ltr/KWh)	2.4	2.3	Mwh

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

<b>Name of Raw Materials</b>	<b>During the Previous financial Year</b>	<b>During the current Financial year</b>	<b>UOM</b>
Coal (Kg/KWh)	0.624	0.649	MT/A

**4) Fuel Consumption**

<b>Fuel Name</b>	<b>Consent quantity</b>	<b>Actual Quantity</b>	<b>UOM</b>
Coal	3692340	1436667.47	MT/A

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

**[A] Water**

<b>Pollutants Detail</b>	<b>Quantity of Pollutants discharged (kL/day) Quantity</b>	<b>Concentration of Pollutants discharged(Mg/Lit) Except PH,Temp,Colour Concentration</b>	<b>Percentage of variation from prescribed standards with reasons</b>	<b>Standard</b>	<b>Reason</b>
			<b>%variation</b>		
Condencer Cooling Water pH	-	7.93	Within Limit	6.5-8.5	-
Temperature	-	25	Within Limit	not to exceed 5°C, than that of intake water temp	-
FAC	-	0.195	Within Limit	0.5	-
Boiler Blow Down TSS (U: I &II)	-	29.03	Within Limit	100	-
Oil & Grease	-	<4	Within Limit	10	-
Copper (as Cu)	-	0.16	Within Limit	1	-
Iron (as Fe)	-	0.02	Within Limit	1	-
Cooling Tower Blow Down FAC	-	0.20	Within Limit	0.5	-
Zinc	-	0.31	Within Limit	1	-
Chromium (Total)	-	0.05	Within Limit	0.2	-
Phosphate	-	1.06	Within Limit	5	-
D.M. Plant Effluent pH	-	7.99	Within Limit	5.5-9	-
Suspended Solids	-	21.9	Within Limit	100	-
Oil & Grease	-	<4	Within Limit	10	-
BOD 3 days	-	15.48	Within Limit	30	-
COD	-	59.91	Within Limit	250	-
TDS	-	1469.4	Within Limit	2100	-
STP - TSS	0.87	14.21	Within Limit	50	-

BOD	0.6	8.83	Within Limit	30	-
COD	1.91	32.14	Within Limit	100	-
pH	-	7.92	Within Limit	6.5-8.5	-

**[B] Air (Stack)**

<b>Pollutants Detail</b>	<b>Quantity of Pollutants discharged (kL/day)</b>	<b>Concentration of Pollutants discharged(Mg/NM3)</b>	<b>Percentage of variation from prescribed standards with reasons</b>	<b>Standard</b>	<b>Reason</b>
	<b>Quantity</b>	<b>Concentration</b>	<b>%variation</b>		
U#1 SPM	1404	44.0	Within Limit	50 mg/Nm3	-
U#2 SPM	1364	42.7	Within Limit	50 mg/Nm3	-
U# I&II SO2	80936.5	2535.6	Within Limit	101 TPD	-

**HAZARDOUS WASTES**

**1) From Process**

<b>Hazardous Waste Type</b>	<b>Total During Previous Financial year</b>	<b>Total During Current Financial year</b>	<b>UOM</b>
5.1 Used or spent oil	28.38	7.82	MT/A
35.3 Chemical sludge from waste water treatment	8.62	1.72	MT/A
Other Hazardous Waste	E-waste (2.43)	3.92	MT/A
Other Hazardous Waste	Battery Waste (39nos)	13	Nos./Y
Other Hazardous Waste	Glass Wool (5.97)	7.83	MT/A
33.2 Contaminated cotton rags or other cleaning materials	0.88	2.8	MT/A

**2) From Pollution Control Facilities**

<b>Hazardous Waste Type</b>	<b>Total During Previous Financial year</b>	<b>Total During Current Financial year</b>	<b>UOM</b>
0	NA	NA	

**SOLID WASTES**

**1) From Process**

<b>Non Hazardous Waste Type</b>	<b>Total During Previous Financial year</b>	<b>Total During Current Financial year</b>	<b>UOM</b>
NA	NA	NA	Ton/Y

**2) From Pollution Control Facilities**

<b>Non Hazardous Waste Type</b>	<b>Total During Previous Financial year</b>	<b>Total During Current Financial year</b>	<b>UOM</b>
Ash (Fly + Bottom) generated	660941	470490	MT/A

**3) Quantity Recycled or Re-utilized within the unit**

<b>Waste Type</b>	<b>Total During Previous Financial year</b>	<b>Total During Current Financial year</b>	<b>UOM</b>
8.3 Flue gas dust and other particulates	688361(Ash Utilised)	748832 (Ash Utilised)	MT/A

**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**

<b>Type of Hazardous Waste Generated</b>	<b>Qty of Hazardous Waste</b>	<b>UOM</b>	<b>Concentration of Hazardous Waste</b>
5.1 Used or spent oil	7.82	MT/A	Sr. No. Parameter Result Limit as per Schedule V*(Part B) 1 Sediment 0.21(0.25 %) 2 Lead 24.3 (100 ppm) 3 Arsenic 2.03( 5 ppm) 4 Cd+Cr+Ni 114.2( 500 ppm), 6. (PAH) 4.7(6%), 7 T Halogen 3820 (4000PPM)

35.3 Chemical sludge from waste water treatment 1.72 MT/A 1) pH of 10% suspension=7.94, (2)Arsenic (as As)mg/l = < 0.001, (3)Barium (as Ba)mg/l=0.21, (4)Cadmium mg/l= < 0.001, (5)Chromium mg/l =< 0.01, (6)Lead (as Pb)mg/l =< 0.001, (7)Nickel mg/l=< 0.001, (8

## 2) Solid Waste

Type of Solid Waste Generated	Qty of Solid Waste	UOM	Concentration of Solid Waste
Ash	470490	MT/A	LOI-<0.2%, SiO2-56.78%, CaoO 6.62%, MgO <0.5%, SiO2 + Fe2O3 + Al2O3 86.35%
NA	NA	CMD	Na

### 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)
Reduction of Parameter	11202 M3/day	0.70 Kl/Day	627995860 Kg	84135300 KWH	-	-

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

#### [A] Investment made during the period of Environmental Statement

Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)
Areawise Housekeeping Contract awarded to Maintain plant premises clean.	Housekeeping Expenses	60.86
Continual monitoring of Environmental Parameter	Maintenance expenses for CAAQMS & CEMS	30.46
AMC for Environmental Monitoring	Monitoring of Environmental Parameter	6.01
Expenses on Tree Plantation	Expenses on Tree Plantation	34.19
O&M of STP and ETP	O&M of STP and ETP	54
CSR Expenses for FY Yr 18-19	CSR FY Yr 18-19	67
Expenses for Ash Utilization	Expenses for Ash Utilization	6.37
CTO Expenses	CTO Expenses	93
Hazardous waste Disposal charges	Wate Disposal Chages	2.35

#### [B] Investment Proposed for next Year

Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)
NA	NA	NA

### Any other particulars in respect of environmental protection and abatement of pollution.

#### Particulars

1. Single flue gas stack of 220M height provided to dispersion of Emission and keep concentration within limit. 2. High Efficiency of ESP provided to control emission with limit. 3. DS & DE and Bag filter provided at CHP and Silo area. 4. Closed convey system installed at CHP. 5. Rain gun type water spray system installed at Coal Stacker yard. 6. Water sprinkling system installed at Road side . 7. ETP & STP are installed to control water pollution. 8. Good Housekeeping maintain in plant premises

#### Name & Designation

Ashesh Padhy, Station Director