

**ENVIRONMENTAL STATEMENT  
OF  
NTPC-Gadarwara**

**CAPACITY: 2 X 800 MW**

**FINANCIAL YEAR ENDING THE 31<sup>st</sup>  
MARCH, 2023**

<b>NTPC-Gadarwara Super Thermal Power Plant</b> At Villages Meharkheda, Tehsil Gadarwara , District Narsinghpur (Madhya Pradesh)	<b>Environmental Statement Report, 2022-2023</b>
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### ENVIRONMENTAL STATEMENT FORM-V

**(See rule 14)**

Environmental Statement for the financial year ending with 31<sup>st</sup> March, 2023 as per condition stipulated under clause no. xxxix of Specific Conditions in Environmental Clearance granted by Ministry of Environment & Forest vide letter no. F.No J-13012/95/2008-IA.II (T) dated 27<sup>th</sup> December 2010 and under the clause no 37 of Consent to Establishment from MP Pollution control Board vide letter no 5602/TS/MPPCB/2014, dated 2<sup>nd</sup> September 2014.

*1 x 800 MW is commissioned on 1<sup>st</sup> June 2019.*

*1 x 800 MW is commissioned on 1<sup>st</sup> March 2021*

#### **PART- A**

Environmental Statement Report for the Financial Year ending the 31<sup>st</sup> March, 2023

i.	<b>Name and address of the Owner / occupier of the industry Operation or process.</b>	<b>Shri Kamlesh Soni</b> <b>Chief General Manager</b> Narmada Vihar NTPC-Gadarwara  Vill. Meharkheda, Gadarwara, Dist. Narsinghpur, MP ,487770
ii.	<b>Industry category Primary-(STC Code)</b>	Red Category
iii.	Production Capacity	2 X 800 MW
iv.	Year of establishment	COD of Unit # 1: 1st June 2019 COD of Unit # 2: 1st March 2021
v.	Date of the last Environmental statement submitted.	--

#### **PART - B**

**(I) Water and raw Material Consumption:-**

	<b>Water consumption by</b>	<b>Consumption</b>	
1	<b>Process (make up water)</b>	77000 M <sup>3</sup> /day	
2	<b>DM water</b>	1530 M <sup>3</sup> /day	
3	<b>Domestic</b>	Average 800 M <sup>3</sup> /Day	
S. No.	<b>Name of the Products</b>	Process water consumption per unit of products	
		During the previous financial year 2021-22	During the current financial year 2022-23
1.	<b>Process Water/ (Make up water)</b>	<b>2.98 M<sup>3</sup>/MWh</b>	<b>2.96 M<sup>3</sup>/MWh</b>

**(II) Raw material consumption**

<b>Name of the Raw materials*</b>	<b>Name of the Products</b>	<b>Raw Material consumption per unit of products</b>	
		During previous financial year 2021-22	During current financial year 2022-23
<b>Coal</b>	Electricity	<b>0.64 KG/KWH (Total 5102010 T)</b>	<b>0.61 KG/KWH (Total 5738348 T)</b>

<b>NTPC-Gadarwara Super Thermal Power Plant</b> At Villages Meharkheda, Tehsil Gadarwara , District Narsinghpur (Madhya Pradesh)	<b>Environmental Statement Report, 2022-2023</b>
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\*Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

### PART - C

#### Pollution discharged to environment/unit of output

(Parameter as specified in the consent issued)

The plant unit was under trail run. Observation in and around the project site:

Pollutants	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (mass/volume)	Percentage of variation from prescribed standards with reasons.
(a) Air			NA
(b) Water	Zero Discharge		NA

### PART – D

#### HAZARDOUS WASTES

As specified under Hazardous Wastes (Management & Handling Rules, 1989)

S. No.	Hazardous Wastes	Total Quantity (Kg)	
		During the previous financial year 2021-22	During the current financial year 2022-23
a.	From Process	Used Oil- 17.22 KL	Used Oil- 16.13MT
b		Scrap empty drums - 1400 Nos	Scrap empty drums – NIL
c.	From Pollution Control Facilities	NIL	NIL

### PART – E

#### SOLID WASTES

S. No.	Solid Wastes	Total Quantity (Kg)	
		During the previous financial year 2021-22	During the current financial year 2022-23
a.	From Process	3.385 LMT Bottom ash from boiler	3.67 LMT Bottom ash from boiler
b.	From Pollution Control Facility	13.54 LMT-Fly ash from ESP	14.68 LMT-Fly ash from ESP
c.	Quantity recycled or reutilized within the unit.	6.348 LMT fly ash used in preparation of fly ash bricks, issued to cement industries / end users, utilized in filling low lying area including 3.56 LMT accounted as unexcavable quantity	14.84 LMT fly ash used in preparation of fly ash bricks, issued to cement industries / end users, utilized in filling low lying area including 0.56 LMT accounted as unexcavable quantity

**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.**

**SOLID WASTE:**

- Ash is the main solid waste generated in the coal based thermal power plant. The quantity of fly ash and bottom ash generated will be 2400 TPD and 600 TPD respectively on full capacity of 800 MW.
- Fly ash is utilized as per notification for fly ash by Ministry of Environment & Forest,
- High Concentrated Fly Ash Silo is ready for disposing dry fly ash and ash dyke as well. for the storage & disposal of dry fly ash. Unutilized fly ash is disposed to ash pond through high concentration slurry disposal system for which pipeline is laid down with ash water recovery system (AWRS) Ash Pond is constructed in 350 acres with 300 mm fly ash liner.
- Total ash generated: 18.35Lakh MT; Ash transported to NHAI: 13.36 Lakh MT; Ash issued to Cement Industries: 0.6101 Lakh MT; Ash filling in low lying areas: 0.04 Lakh MT: % Ash Utilization: 80.85 %

**HAZARDOUS WASTE:**

Authorization no H-54161, dated 14/09/2021 for generation, collection, storage and disposal of below H.W. has already been granted by MPPCB, Bhopal valid Up to 31-07-2026. No hazardous waste is generated till date. Generated hazardous waste is being disposed off in environmentally friendly manner as below;

Sl. No	Hazardous wastes	Mode of Disposal	Quantity (Tons / Annum)	Mode of Transportation
1	Contaminated cotton rags or other cleaning materials (33.2)	Coprocessing (As per CPCB SOP, If any), Disposal through TSDF	1.00 MT	Through transporters registered with SPCB and in vehicles registered with SPCB for the transportation of hazardous wastes
2	Waste or residues Containing Oil (5.2)	Coprocessing (As per CPCB SOP, If any), Disposal through TSDF	1.00 MT	
3	Used/Spent Oil (5.1)	Through authorized recycler	10.00 MT	
4	Chemical sludge from wastewater treatment (35.3)	Coprocessing (As per CPCB SOP, If any), Disposal through TSDF	0.500 MT	
5	Spent Ion Exchange Resin containing toxic materials (35.2)	Coprocessing (As per CPCB SOP, If any), Disposal through TSDF	0.500 MT	
6	Toxic (C4) (Used insulation material Glass wool, gland / Rope packing)	Preprocessing, Coprocessing (As per CPCB SOP, If any), Disposal through	310.00 MT	
7	Empty barrels/containers/liners contaminated with hazardous chemicals /wastes (33.1)	Disposal through Registered Recycler, TSDF	120.00 MT	

**Disposed Waste**

S. No.	Hazardous Waste	Quantity (MT)	Mode of Disposal
1	Used/Spent Oil (5.1)	16.13 MT	MSTC
2	Empty barrels/containers/liners contaminated with hazardous chemicals /wastes (33.1)	NIL	MSTC
3	Hazardous Waste Glass wool Insulation	776.98 MT	M/s PIWMPL

## **PART – G**

### **Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost production.**

The ambient air quality monitoring with respect to the 10 km radius study area around the project site is being carried out by M/s Mahabal Enviro Engineers Pvt. Ltd Nagpur on monthly basis. Regular monitoring of ambient air quality, Noise Level, ground & surface water quality has been carried out to evaluate the quality of environment.

Result for the same has been attached as below.

1. Ambient air quality monitoring report enclosed as **Annexure 1**.
2. Ground water quality report enclosed as **Annexure 2a**.
3. Surface water quality report enclosed as **Annexure 2b**.
4. Noise level monitoring report enclosed as **Annexure 3**.

## **PART – H**

### **Additional measures/investment proposal for environmental protection including abatement of pollution.**

- ✓ Green belt development in and around the plant premises.
- ✓ FGD installation in progress
- ✓ Online Permanent continuous AAQM System.
- ✓ Regular monitoring of ambient air quality, (AAQMS) Noise Level, ground & surface water quality
- ✓ Opacity meter and gaseous monitoring system for continuous emission monitoring system (CEMS) of PM, SO<sub>2</sub>, NO<sub>x</sub> at 90 meters of 275-meter stack.
- ✓ Online data transmission through Fibre optic cable for CEMS AAQMS to CPCB and MPPCB
- ✓ Work is in progress for Rainwater Harvesting & Recharging System.
- ✓ ETP with oil skimmer and lamella clarifier and STP with MBBR and clarifiers
- ✓ AWRS commissioned.

## **PART - I MISCELLANEOUS:**

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

- ✓ Water sprinkling being used on roads of site and other dust vulnerable areas of the plant.
- ✓ Massive green belt plantation developed with thick canopy cover as well as adequate height with longer duration of foliage.