



तेलंगाना
TELANGANA

Ref: 09: EMG/E-02/2024/ 181

तारीख/ Date: 28.09.2024

To
The Member Secretary
T.G. Pollution Control Board,
Paryavaran Bhawan,
A-3, Industrial Estate, Sanathnagar,
HYDERABAD- 500 018

Respected Member Secretary /आदरणीयसदस्यसचिव

Sub / विषय: Environmental Statement for the Financial Year 2023-2024/ पर्यावरण विवरण वित्तीय वर्ष 2023-2024 Reg

Please find enclosed herewith, the Environmental Statement for the Financial Year 2023 – 2024 for NTPC-Telangana (Phase-I 2x800 MW), prepared in Form-V as per the Government of India Gazette Notification dated 13th March 1992. / भारत सरकार के राजपत्र दिनांक 13 मार्च 1992 की अधिसूचना के अनुसार प्रपत्र-V में तैयार किए गए एनटीपीसी-तेलंगाना (फेज़-I 2x800 मेगावाट) के लिए वित्तीय वर्ष 2023-2024 के लिए पर्यावरण विवरण यहां संलग्न है।

Thanking you,

Yours faithfully/भवदीय,
For NTPC Ltd. / एनटीपीसी लिमिटेड के लिए

(K.V.Rao) / (के वी राव)
(DGM- EMG)/ (उप महाप्रबंधक-पर्यावरण प्रबंधन समूह)

Copy to:
The Environmental Engineer
TG Pollution Control Board
Regional Office: Ramagundam
NTPC - TTS, Jyothinagar 505 215, District, PEDDAPALLI

Office of the
Environmental Engineer
Telangana Pollution Control Board
Regional Office, Ramagundam,
H. No. Special C-3, NTPC, TTS
Near Zilla Parishad High School
JYOTHINAGAR - 505 215
Peddapalli (TG)

TELANGANA SUPER THERMAL POWER STATION
NATIONAL THERMAL POWER CORPORATION LIMITED
P.O. JYOTHI NAGAR DIST: PEDAPALLI

ENVIRONMENTAL STATEMENT FOR THE YEAR 2023-24

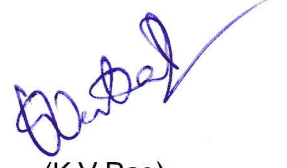
Submission

The Environmental Statement of NTPC- Telangana (Phase-I 2x800 MW), for the Financial Year 2023-2024 has been prepared in-house by the available in-company professional after audit of the system/schedules of monitoring and the reports generated during the year. The methodology adopted involved a survey of the monitoring program and procedures and critical evaluation and analysis of the data.

The Environmental Statement for the year 2023-24 highlights the major Environmental Conservation and operation measures adopted at NTPC- Telangana (Phase-I 2x800 MW), during the period under reference as well as the improvements or change in the performance in these areas compared to the previous years.

Furnished herewith please.

Date: 28.09.2024



(K.V.Rao)
DGM- EMG

के.वेंकटेश्वर राव/K. VENKATESWARA RAO
उप महाप्रबंधक (ईएमजी) / DGM (EMG)
एनटीपीसी रामगुंडम-तेलंगाना / NTPC Ramagundam - Telangana
ज्योतिनगर JYOTHINAGAR - 505 215.

FORM-V

**ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31st MARCH
2024**

PART-A

I	Name and address of the Owner/Occupier of the industry operation or process	Sh. Kedar Ranjan Pandu Executive Director NTPC-RAMAGUNDAM & TELANGANA, P.O.: JYOTHINAGAR, RAMAGUNDAM, DIST: PEDDAPALLI(TS)
II	Industry Category(STC/SIC Code)	N/A
III	Production Capacity	1600 MW (2x800 MW)
IV	Year of Establishment	COD of Unit -1: 28.09.2023 COD of Unit -2: 01.03.2024
V	Date of last Environment Statement submitted	The plant has been in operation since Sept 2023. Hence, this is the first Environment Statement in respect of NTPC Telangana (2x800 MW)

PART - B

WATER AND RAW MATERIAL CONSUMPTION

(i). Water Consumption (m³/day)

a	For Process	8171.5 KLD	Total 42511.83 KLD
b	For Cooling	34046.96 KLD	
c	For Domestic	293.37KLD	

Process Water Consumption Per unit of Product Output (Liter/Kilo Watt Hour):

Name of Products	Process water consumption per unit of product output	
	2022-23	2023-24
Electricity generation 2831.8 MU	NA	0.54 Lit/kWH

*Note: Specific Water consumption for FY 2023-24 is 2.79 Lit/KWH

ii. Raw material consumption

Name of raw materials	Name of products	Consumption of raw material per unit of output	
		2022-23	2023-24
a. Coal (kg/kwh)	Electricity generation	NA	0.62
b. Fuel Oil (ml/kwh)		NA	1.83

Ramagundam Super Thermal Power Station, PO: Jyothinagar, Dist: Peddapalli, TS- 505 215:
Telephone no.08728-264070
Regd.Office:NTPC Limited, NTPC Bhawan, Scope Complex, 7 Institutional Area, Lodhi Road,
New Delhi-110 003

PART – C

POLLUTION DISCHARGE TO ENVIRONMENT/UNIT OF OUTPUT

I. Wastewater Discharged (2023-2024)

Plant Effluent: 0 m³/day, Sewage Effluent: 0 m³/day

Pollutants	Quantity of Pollutant (kg/day)	Concentration Of Pollutant(mg/l)	% of variation from prescribed standard with reasons
i. Process Effluent			
TSS	NIL	NIL	Nil
ii. Domestic Effluent			
BOD	NIL	NIL	Nil
TSS	NIL	NIL	Nil

* NTPC Telangana is designed with Zero Liquid Discharge concept. Therefore, there is no discharge of effluent from plant.

II. Stack Emissions:

Flue Gas Flow Rate	
Unit-I (800 MW)	2890800 Nm ³ /Hr/Unit
Unit-II (800 MW)	2890800 Nm ³ /Hr/Unit

Pollutant	Quantity of Pollutant Discharged (kg/day)	Concentration of Pollutant Discharged (mg/Nm ³)	% of Variation from Prescribed Standard with Reasons.
PM	*223.84	25.46	Nil
PM	*33.88	24.32	Nil

* Calculation is based on the actual days of Unit in operation.

PART – D

HAZARDOUS WASTES

(as specified under Hazardous waste/Management and handling Rules 1989)

Hazardous Wastes	Total Quantity	
	During the previous financial year	During the current financial year
a. From Process	Disposal details are given below	
b. From Pollution Control facilities		

S. No	Physical Form with Description	Total Quantity stock (Approx. Volume/ Weight)	
		2022-2023	2023-2024
1)	Used / Transformer Oil (MT)	NA	Nil*

*The plant has been in operation since September 2023. Therefore, no used oil is disposed in the financial year 2023-24.

PART-E

SOLID WASTES

		Total Quantity	
		During the Current financial year (2022-23)	During the Current financial year (2023-24)
A	From Process		
	i. Mill Rejects (MT)	NA	Nil
B.	From Pollution Control Facility		
	i. Ash collected from ESP & Boiler furnace bottom	NA	681000
C.	(1) Quantity recycled or re-utilized within the unit	NA	-
	i. Ash (For Dyke raising, low lying area fill, Own Brick manufacturing units, etc)	NA	Nil
	ii. Mill Rejects	NA	Nil
	(2) Sold		
	i. Fly ash sold to Cement/RMC Manufacturing industries	NA	Nil
	ii. Mill Rejects (MT)	NA	Nil
	(3) Disposed		
	i. Ash (disposed to ash pond)	NA	681000
	ii. Ash (issued to brick/RMC industries & others at free of cost)	NA	Nil
	iii. Mill Rejects	NA	Nil

PART – F

CHARACTERISATION OF HAZARDOUS AS WELL AS SOLID WASTES

NIL

PART-G

IMPACT OF POLLUTION CONTROL MEASURES ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION

PROCESS IMPROVEMENT:

- The project is based on super critical boiler parameters with higher thermal efficiency as compared to sub critical boiler parameters. The increase in efficiency results in lower coal consumption resulting in lower ash generation as well as gaseous emissions.
- High efficiency electrostatic precipitators (ESPs) have been installed in both units and Particulate Matter (PM) is well within the prescribed limit i.e. 30 mg/Nm³.
- Flue Gas Desulphurization (FGD) system is being provided for both the units to reduce SO₂ emissions.
- In both the units, L-SOFA & H-SOFA installed for control of NO_x emission.

WATER:

- The water system of Telangana Super Thermal Power Project (TeSTPP) has been designed with Zero Liquid Discharge (ZLD) concept, consisting of Effluent Treatment Plant (ETP), Coal Slurry Settling Pond (CSSP), WWRO system, waste service water system and ash water recirculation system to maximize the recycle and reuse option thereby minimizing quantity of effluent. By treating effluent water and reusing the same, NTPC Telangana is not only conserving precious water resources but has also been successful in not allowing any effluent to go to outside and pollute the environment.
- Two different systems for ash disposal - conventional wet slurry disposal with ash water recirculation for bottom ash and High Concentrated Slurry Disposal (HCSD) for fly ash have been adopted at TeSTPP. HCSD system requires less quantity of water and there will be no effluent discharge from the fly ash disposal site. Decanted water from bottom ash pond is recirculated back to the plant from the overflow lagoon and is being used for ash handling purpose.
- As the plant process is based on sequential recycle and reuse of effluents, any reduction in water requirement in subsequent stage may lead to excess effluents from previous stage. In order to treat and recycle excess effluents, an end of the pipe treatment based on Reverse Osmosis (RO) system is being provided. The treated water can be recycled back to cooling water make up and DM system makeup.

PLANTATION:

- Mass tree plantation is being carried not only in plant but also in the surrounding Municipalities of Ramagundam, Peddapalli and Sultanabad supporting Telangana-Ku-Haritaharam program now renamed as Vanamahotsavam. In 2021-22, more than one lakh plantations were carried and maintained.
- NTPC has adopted new method of plantation called **Miyawaki technique**, creating denser and thicker greenbelts in the surrounding areas. These areas are not only acting as carbon sinks but also are acting as mini oxygen factories. In 2022-24 over 96000 plantations were done using this method. It has enabled the flora and fauna around the plant to grow and flourish. The green cover has immensely helped in decreasing CO₂ and releasing oxygen in the surrounding air, thereby improving air quality.

RENEWAL ENERGY

- 100 MW PV based Floating Solar Plant was dedicated to the nation on 30th July 2022 by Honorable Prime Minister of India Shri. Narendra Modi ji. In addition to the existing 10MW PV based land Solar Power Plant which was commissioned on 31st Dec 2013. In addition to the above projects, roof tops solar panels are also installed for harnessing Solar Power which amounts to 1253.29 KVA.

The pollution abatement measures increase the cost of production, but the expenditure is worth as it contributes towards sustainable development.

PART-H

ADDITIONAL MEASURES/INVESTMENT PROPOSAL FOR ENVIRONMENTAL PROTECTION INCLUDING ABATEMENT OF POLLUTION, PREVENTION OF POLLUTION.

- Flue Gas Desulphurization (FGD) system is being installed in both the units.
- For Solid waste management at NTPC Telangana, a Waste to Energy plant of 3.0 TPD capacity is envisaged for the conversion of waste to usable energy.
- Dry Ash Extraction System (DAES) and transportation is available for Stage I which uses telescopic chute to ensure the control of fugitive dust emission while ash loading in trucks.
- As a precautionary measure in ash pond, to prevent impact on groundwater quality an impervious liner consisting of a layer of sand cushion, HDPE, geotextile and finally overlain by PCC to prevent leaching.

PART - I

ANY OTHER MEASURES FOR IMPROVING THE QUALITY OF THE ENVIRONMENT

- High Efficiency Electro-static Precipitators (ESP) of more than 99.0% efficiency are in operation.
- Ash Water Recirculation System (AWRS) is in place which recycles the decanted ash pond water generated in the ash pond. The decanted water from ash dyke is being collected in Overflow Lagoon and pumped back to plant for ash disposal.
- Liquid Waste Treatment Plant (LWTP) to conserve water by increasing Cycle of Concentration (COC) of cooling water is being provided.
- Fly ash bricks was utilized during the construction phase of Telangana STPP and also for its maintenance works.
- Geo-polymer products development is under progress with fly ash in place of PPC.
- Rainwater harvesting system is being provided in Phase I for collecting rainwater through localized catchment areas like paved, unpaved areas and roof top buildings. Collected water shall be used for recharging the groundwater table and stored in pond for gardening purpose.

Date: 28.09.2024



Signature
Name : K.V.Rao
Designation:DGM (EMG)

के. वेंकटेश्वर राव/K. VENKATESWARA RAO
उप महाप्रबंधक (ईएमजी) / DGM (EMG)
एनटीपीसी रामगुंडम-तेलंगाना / NTPC Ramagundam - Telangana
ज्योतिनगर JYOTHINAGAR - 505 215.