

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL SOUTHERN ZONE
BENCH AT CHENNAI**

**ORIGINAL APPLICATION No. 227 of 2021
IN THE MATTER OF**

BATTU SATISH REDDY

H.No. 5-55, Pittavani Palem, Kalapaka
Pedgantyada, Visakhapatnam District
Andhra Pradesh-530031
Mobile No. 9666391895
Mail id: advsravan@gmail.com

..... Applicant

Versus

NATIONAL THERMAL POWER CORPORATION LTD SIMHADRI PLANT

Rep by its Plant In-charge Near Pittavani Palem Village
Simhadri Post 531020
Vishakapatnam, Andhra Pradesh
& 5 Others

..... Respondents

REPORT FILED BY THE 5TH RESPONDENT APPCB

DATE-02-02-2023



**M/s MADHURI DONTI REDDY
ADVOCATE**

**STANDING COUNSEL FOR GOVERNMENT OF ANDHRA PRADESH
A.P. POLLUTION CONTROL BOARD
T.T.D. SUPREME COURT OF INDIA**

#26, S2, Royal Castle, Gill Nagar Extension, Choolaimedu, Chennai – 600 094.
Mobile: 98407 98460 / 63831 21322, Email: rednymadhuri09@gmail.com

COUNSEL FOR 5TH Respondent APPCB

**BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI**

Original Application No. O.A. No. 227 of 2021(SZ) & I.A. No.85 of 2022 (SZ)

**IN THE MATTER OF O.A. No. 227 of 2021(SZ) & I.A. No.85 of 2022 (SZ)
SUBMITTED TO HON'BLE NATIONAL GREEN TRIBUNAL, SOUTHERN
ZONE, CHENNAI IN COMPLIANCE TO HON'BLE NGT ORDER
DATED.19.12.2022.**

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Dt: 31.01.2023
Place: Visakhapatnam.

(S. Venkateswarlu)
Environmental Engineer,
A.P. Pollution Control Board,
Regional Office, Visakhapatnam
Environmental Engineer
A.P. Pollution Control Board
Regional Office, Visakhapatnam

Report in compliance to Hon'ble NGT order dt: 19.12.2022 in O.A. No. 227 of 2021(SZ) & I.A. No.85 of 2022 (SZ) filed by Sri Battu Satish Reddy, Pattivanipalem Village, Visakhapatnam District against M/s. Simhadri Super Thermal Power Project (Stage-I&II), NTPC Limited, Parawada(M), Anakapalli District (Earlier Visakhapatnam District):

The Hon'ble NGT vide order dated: 19.12.2022 in O.A. No. 227 of 2021(SZ) & I.A. No.85 of 2022 (SZ) directed the Andhra Pradesh Pollution Control Board(APPCB) to once again conduct the Ambient Air Quality test and water analysis a fresh and file a report after serving a copy of the same to the other parties before the next hearing. Copy of the Hon'ble NGT order dated: 19.12.2022 is produced at Annexure-I.

In this regard, APPCB has conducted stack emission and ambient air quality monitoring and water quality monitoring on 25.01.2023 to 27.01.2023 and 29.01.2023. The analysis results are submitted below:

- i. APPCB has conducted ambient air quality monitoring on 24.01.2023 & 27.01.2023 at the Pump house, Administration Building and Sarada guest house, Township of M/s. Simhadri Super Thermal Power Project (Stage-I&II), NTPC Limited and also conducted ambient air quality monitoring on the terrace of complainant's house at D.No.6-10, Back side of the Ramalayam Temple, Pittavanipalem(V), Parawada(M), Anakapalli District (Earlier Visakhapatnam District). The results of analysis is submitted below:

Ambient Air Quality Monitoring Test Results in the industry premises:

Date of monitoring: 24.01.2023 & 25.01.2023					
Name of the location: Near Raw Water Pump House					
Parameter	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	NH ₃
Value($\mu\text{g}/\text{m}^3$)	144	69	30.8	16.6	17.0

Standard (24 Hrly average) ($\mu\text{g}/\text{m}^3$)	100	60	80	80	400
Compliance status	Not complied	Not complied	Complied with	Complied with	Complied with
Date of monitoring: 25.01.2023 to 26.01.2023: Name of the location: Near Administration Office					
Parameter	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	NH ₃
Value($\mu\text{g}/\text{m}^3$)	176.0	85.0	25.0	18.8	10.0
Standard (24 Hrly average) ($\mu\text{g}/\text{m}^3$)	100	60	80	80	400
Compliance status	Not complied	Not complied	Complied with	Complied with	Complied with
Date of monitoring: 26.01.2023 to 27.01.2023 Name of the location: Near Sarada Guest House, Township					
Parameter	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	NH ₃
Value($\mu\text{g}/\text{m}^3$)	93.0	52.0	23.8	10.2	10.0
Standard (24 Hrly average) ($\mu\text{g}/\text{m}^3$)	100	60.0	80	80	400
Compliance status	Complied with	Complied with	Complied with	Complied with	Complied with

Ambient Air Quality Monitoring Test Results in the complainants village:

Date of monitoring: 24.01.2023 & 25.01.2023 Name of the location: On the terrace of complaint's house D.No.5-32, Near Shivalayam Temple, Pittavanipalem (V), Visakhapatnam.
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Parameter	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	NH ₃
Value($\mu\text{g}/\text{m}^3$)	108.0	47.0	11.0	14.0	25.0
Standard (24 Hrly average) ($\mu\text{g}/\text{m}^3$)	100	60.0	80	80	400
Compliance status	Not Complied	Complied with	Complied with	Complied with	Complied with

- ii. APPCB has conducted stack monitoring for the stacks attached to coal fired boilers of unit I, II, III & IV on **29.01.2023** and the analysis results of Particulate Matter (PM), Nitrogen Oxides & Mercury (Hg) values are as submitted below:

Stack emissions monitoring results of stage-I:

S. No.	Parameter	Values (mg/Nm^3)		Standard (mg/Nm^3)	Compliance
		Unit -I	Unit -II		
1.	Particulate matter	74.2	91.8	100.0	Complied with
2.	Nitrogen oxides NO and NO ₂ expressed as NO ₂ (Corrected to 6% Oxygen)	273.1	322.9	600.0	Complied with
3.	Mercury (Hg)	<0.001	<0.001	0.03	Complied with

Stack emissions monitoring results of Stage-II:

S. No.	Parameter	Values (mg/Nm ³)		Standard (mg/Nm ³)	Compliance
		Unit-III	Unit-IV		
1.	Particulate matter	39.2	68.3	50.0	Unit-IV, Not complied with
2.	Nitrogen oxides NO and NO ₂ expressed as NO ₂ (Corrected to 6% Oxygen)	269.1	494.6	450.0*	Unit-IV, Not complied with
3.	Mercury (Hg)	<0.001	<0.001	0.03	Complied with

* Standard amended by MoE&F & CC vide notification dated 19.10.2020

- iii. APPCB has collected treated wastewater samples from outlet of ETP and STP of M/s. Simhadri Super Thermal Power Project (Stage-I&II), NTPC Limited on 24.01.2023. The analysis results are as follows:

Effluent Treatment Plant (ETP) Analysis results:

S.No.	Parameter	Effluent Disposal Point Outlet	Standard	Compliance status
1.	pH	7.45	5.5-8.5	Complied with

2.	Temperature	Intake: 28 ⁰ C Discharge:31 ⁰ C	Not more than 5 ⁰ C higher than intake water	Complied with
3.	Total Suspended Solids	18	100	Complied with
4.	Phosphate (as PO ⁴)	0.06	20	Complied with
5.	Oil & Grease	<1.0	20	Complied with
6.	Chloride (as Cl)	19863	--	---
7.	Total Chromium	<0.001	0.2	Complied with
8.	Copper (Total)	<0.001	1.0	Complied with
9.	Zinc	0.005	1.0	Complied with
10.	Iron	0.036	1.0	Complied with

Note: - All values are expressed in mg/l except pH

Sewage Treatment Plant(STP) Analysis results:

S. No	Parameter	STP Outlet (Plant)	STP Outlet (Town Ship)	Outlet discharge standards	Compliance status
1.	pH	7.26	7.02	5.5-9.0	Complied with

2.	Total Suspended Solids	23	26	100	Complied with
3.	Chemical Oxygen Demand	54	44	250	Complied with
4.	Biochemical Oxygen Demand	15	10	30	Complied with

Note: - All values are expressed in mg/l except pH

- iv. APPCB has collected ground water samples from the borewells on 24.01.2023 at Pittavanipalem Village beside Kalapaka Road, Devada Village near PHC, MPUP School, M. Dasaripeta. As per the analysis results of the water samples collected by APPCB from bore wells on 24.01.2023, all the parameters are within the permissible limits of drinking water specification IS10500:2012. The analysis results are submitted below:

S. No.	Parameter	Bore well sample collected in Pittavanipalem Village beside Kalapaka Road	Bore well sample collected in Devada Village near PHC	Bore well sample collected in MPUP School, M. Dasaripeta	Drinking water specification IS10500:2012	
					Acceptable Limit	Permissible Limit
1.	pH	7.23	7.76	7.31	6.5-8.5	No Relaxation
2.	Electrical Conductivity (as $\mu\text{S}/\text{cm}$)	1597	1983	1615	--	--
3.	Total Dissolved Solids	1096	1340	1108	500 mg/L	2000 mg/L
4.	Total Alkalinity (as CaCO_3)	516	496	388	200 mg/L	600 mg/L
5.	Total	448	404	372	200 mg/L	600 mg/L

	Hardness (as CaCO ₃)					
6.	Chloride (as Cl)	115.06	241.06	154.27	250 mg/L	1000 mg/L
7.	Calcium (as Ca)	70.4	49.6	102.4	75 mg/L	200 mg/L
8.	Magnesium (as Mg)	66.09	68.04	13.60	30 mg/L	100 mg/L
9.	Nitrate (as NO ₃)	38.07	42.92	40.72	45 mg/L	No Relaxation
10.	Nitrite Nitrogen (as NO ₂ -N)	0.05	0.09	0.12	--	--
11.	Ammonical Nitrogen (as NH ₃ -N)	0.01	BDL	0.03	0.5 mg/L	No Relaxation
12.	Phosphate (as P)	0.02	BDL	BDL	--	--
13.	Sulphate (as SO ₄)	40.79	94.2	76.56	200 mg/L	400 mg/L
14.	Fluoride (as F)	0.92	1.40	0.48	1.0 mg/L	1.5 mg/L
15.	Sodium (as Na ⁺)	106.2	221.34	130.16	--	--
16.	Potassium (as K ⁺)	4.63	2.15	11.25	--	--
17.	Chromium (as Cr)	<0.001	<0.001	<0.001	0.05 mg/L	No Relaxation
18.	Iron (as Fe)	0.039	0.056	0.049	0.3 mg/L	No Relaxation
19.	Nickel (as Ni)	<0.001	<0.001	0.001	0.02 mg/L	No Relaxation
20.	Copper (as Cu)	<0.001	<0.001	<0.001	0.05 mg/L	1.5 mg/L
21.	Zinc (as Zn)	0.019	0.039	0.063	5.0 mg/L	15 mg/L
22.	Arsenic (as As)	<0.001	<0.001	<0.001	0.01 mg/L	0.05 mg/L
23.	Cadmium (as Cd)	<0.001	<0.001	<0.001	0.003 mg/L	No relaxation
24.	Mercury (as Hg)	<0.001	<0.001	<0.001	0.001 mg/L	No Relaxation
25.	Lead (as Pb)	<0.001	<0.001	<0.001	0.01 mg/L	No Relaxation

Note: - 1.All values are expressed in mg/l except pH & Conductivity
2.BDL: Below Detectable Limit.

- v. APPCB has collected Piezowell water samples around ash ponds of M/s.Simhadri Super Thermal Power Project (Stage-I&II), NTPC Limited on

24.01.2023.

S. No.	Parameter	Piezo well-1	Piezo well-2	Piezo well-3	Piezo well-4	Drinking water specification IS10500:2012	
						Acceptable Limit	Permissible Limit
1.	pH	7.29	7.37	6.92	7.79	6.5-8.5	No Relaxation
2.	Conductivity (as $\mu\text{S}/\text{cm}$)	28100	8730	49300	1447	--	--
3.	Total Dissolved Solids	19248	5884	34280	920	500 mg/L	2000 mg/L
4.	Total Alkalinity (as CaCO_3)	416	104	164	147	200 mg/L	600 mg/L
5.	Total Hardness (as CaCO_3)	5200	1560	9700	260	200 mg/L	600 mg/L
6.	Chloride (as Cl)	8465	2448	15138	250.70	250 mg/L	1000 mg/L
7.	Calcium (as Ca)	600	264	1200	48	75 mg/L	200 mg/L
8.	Magnesium (as Mg)	899.1	218.7	1628	34.04	30 mg/L	100 mg/L
9.	Nitrate (as NO_3)	23.99	7.96	3.71	14.16	45 mg/L	No Relaxation
10.	Nitrite Nitrogen (as $\text{NO}_2\text{-N}$)	0.01	0.01	0.02	BDL	--	--

11.	Ammonical Nitrogen (as NH ₃ -N)	BDL	BDL	BDL	BDL	0.5 mg/L	No Relaxation
12.	Phosphate (as P)	0.03	0.63	BDL	0.26	--	--
13.	Sulphate (as SO ₄)	1144.5	397.3	2545	52.24	200 mg/L	400 mg/L
14.	Fluoride (as F)	1.25	0.86	1.10	0.44	1.0 mg/L	1.5 mg/L
15.	Sodium (as Na ⁺)	3352	1006	6160	120.28	--	--
16.	Potassium (as K ⁺)	24.57	22.58	107.86	5.79	--	--
17.	Chromium (as Cr)	<0.001	<0.001	<0.001	<0.001	0.05 mg/L	No Relaxation
18.	Iron (as Fe)	0.192	0.100	0.266	0.023	0.3 mg/L	No Relaxation
19.	Nickel (as Ni)	<0.001	<0.001	0.001	<0.001	0.02 mg/L	No Relaxation
20.	Copper (as Cu)	<0.001	<0.001	<0.001	<0.001	0.05 mg/L	1.5 mg/L
21.	Zinc (as Zn)	0.002	0.002	0.001	0.001	5.0 mg/L	15 mg/L
22.	Arsenic (as As)	<0.001	0.001	<0.001	0.001	0.01 mg/L	0.05 mg/L
23.	Cadmium (as Cd)	<0.001	<0.001	<0.001	<0.001	0.003 mg/L	No relaxation
24.	Mercury (as Hg)	<0.001	<0.001	<0.001	<0.001	0.001 mg/L	No Relaxation
25.	Lead (as Pb)	0.001	<0.001	<0.001	<0.001	0.01 mg/L	No Relaxation

Note: 1. All values are expressed in mg/l except pH & Conductivity.

2. BDL: Below Detectable Limit.

As per the analysis reports, the values for the parameters viz., Total Dissolved Salts, Total Hardness, Chloride, Sulphates for Piezo wells-1, 2 & 3 exceeded the permissible limits of drinking water specifications IS10500: 2012.

- vi. The analysis reports of air & water monitoring conducted by APPCB are produced at Annexure-II.
- vii. As per the directions of the Hon'ble NGT, Ambient Air Quality and water analysis test reports sent to the concerned and copies of the letters are produced at Annexure-III.
- viii. APPCB issued a notice to M/s. Simhadri Super Thermal Power Project (Stage-I&II), NTPC Limited for not complying with Ambient Air Quality standards. Copy of the notice is herewith submitted at Annexure-IV.



ENVIRONMENTAL ENGINEER

Environmental Engineer
A.P. Pollution Control Board
Regional Office, Visakhapatnam

Annexure-I

Item No.10:-**BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI***(Through Video Conference)***Original Application No.227 of 2021 (SZ) &
I.A. No.85 of 2022 (SZ)**

IN THE MATTER OF:

Battu Satish Reddy
Andhra Pradesh.

...Applicant(s)

**With**National Thermal Power Corporation Limited
Simhadri Plant, Andhra Pradesh and Ors.

... Respondent(s)

Date of hearing: 19.12.2022.

CORAM:

HON'BLE Smt. JUSTICE PUSHPA SATHYANARAYANA, JUDICIAL MEMBER**HON'BLE Dr. SATYAGOPAL KORLAPATI, EXPERT MEMBER**

For Applicant(s):

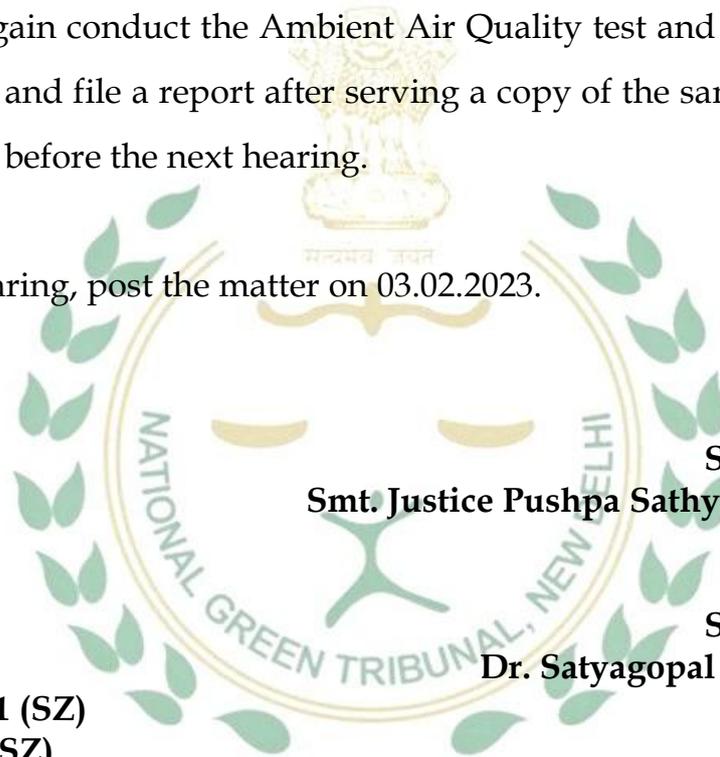
Mr. Sravan Kumar.

For Respondent(s):

Mr. AL. Somayaji, Senior Advocate
For M/s. King & Partridge for R1.
Mr. G.M. Syed Nurullah Sheriff for R2.
Mrs. Madhuri Donti Reddy for R3, R5 & R6.
M/s. N. Nathami for R4.

ORDER

1. The Andhra Pradesh Pollution Control Board is directed to file their objections or counter in the regular format, since there is a complaint from the 1st respondent that the Ambient Air Quality test was conducted during the Diwali season.
2. Therefore, we direct the Andhra Pradesh Pollution Control Board to once again conduct the Ambient Air Quality test and water analysis a fresh and file a report after serving a copy of the same to the other parties before the next hearing.
3. For hearing, post the matter on 03.02.2023.



Sd/-

Smt. Justice Pushpa Sathyanarayana, JM

Sd/-

Dr. Satyagopal Korlapati, EM

O.A. No.227/2021 (SZ)
I.A. No.85/2022 (SZ)
19th December, 2022. Mn.

Annexure-II

A.P. POLLUTION CONTROL BOARD, ZONAL LABORATORY, VISAKHAPATNAM

MOBILE CONTINUOUS AMBIENT AIR QUALITY MONITORING REPORT

24 Hrs. AVERAGE VALUES

M/s Simhadri Super Thermal Power Project (NTPC), Parawada, Anakapalli District

Location 1: Near Raw Water Pump House

Date	Time	CO mg/m ³	O ₃ µg/m ³	NO µg/m ³	NO ₂ µg/m ³	NO _x µg/m ³	NH ₃ µg/m ³	SO ₂ µg/m ³	PM 2.5 µg/m ³	PM 10 µg/m ³	AT °C	RH %	WS m/s	WD deg	BP mmHg
24.01.2023 to 25.01.2023	11:00 to 10:00	0.4	63.1	3.8	16.6	20.4	17	30.8	69	144	23.3	72.9	1.3	239	769

Location 2: Near Administration Office

25.01.2023 to 26.01.2023	13:00 to 12:00	0.5	74.1	7.7	18.8	26.5	10	25.0	85	176	23.6	66.5	1.2	150	768
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Location 3: Near Sarada Guest House, Township

26.01.2023 to 27.01.2023	15:00 to 14:00	0.5	80.9	2.5	10.2	12.7	10	23.8	52	93	24.4	70.3	0.5	115	767
NAAQ Standards 24 Hrs.	--	*2	*100	--	80	--	400	80	60	100	--	--	--	--	--

Remarks:

* O₃ & CO standards is for 8 hours.At locations 1 & 2 the PM₁₀ & PM_{2.5} values are exceeding the NAAQ Standards.

 SENIOR ENVIRONMENTAL SCIENTIST



ANDHRA PRADESH POLLUTION CONTROL BOARD
ZONAL LABORATORY, VISAKHAPATNAM

M. RAVI, M.Sc
SENIOR ENVIRONMENTAL SCIENTIST

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AMBIENT AIR QUALITY MONITORING REPORT

Sample No. : 2023 – 01 – A – 004

Monitoring Location : On the terrace of house of Sri. P. Appala Reddy,
D.No.5-32, Near Shivalayam Temple,
Pittavanipalem (V), Visakhapatnam.

Date of monitoring : 24.01.2023 & 25.01.2023

Sample collected by : Analyst (OS), Regional Office, Visakhapatnam

Sample No.	Location	24 hours Average				
		PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	NH ₃ (µg/m ³)
A-011	On the terrace of complaint's house D.No.5-32, Near Shivalayam Temple, Pittavanipalem (V), Visakhapatnam.	108.0	47.0	11.0	14.0	25.0
NAAQ Standards (24 Hours Average)		100.0	60.0	80.0	80.0	400.0


 SENIOR ENVIRONMENTAL SCIENTIST


ANDHRA PRADESH POLLUTION CONTROL BOARD
ZONAL LABORATORY, VISAKHAPATNAM

D.No.39-33-20/4/1, Behind RTA Office, Madhavadhara VUDA Colony
Visakhapatnam – 530 018.

M. RAVI, M.Sc
Senior Environmental Scientist

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ANALYSIS REPORT

Sample No. : 2023 – 01 – E – 353

Sample location/Address : M/s Simhadri Super Thermal Power Project (NTPC),
Parawada, Anakapalli District.

Sample Source : Effluent Disposal Point Outlet

Sample collected on : 24.01.2023

Sample submitted on : 25.01.2023

Sample collected by : Analyst (OS), Regional Office, Visakhapatnam

S.No.	Parameter	Values	Standard (mg/L)
1.	pH	7.45	5.5-8.5
2.	Temperature	Intake: 28°C Discharge:31°C	Not more than 5°C higher than intake water
3.	Total Suspended Solids	18	100 mg/l
4.	Phosphate (as PO ⁴)	0.06	20 mg/l
5.	Oil & Grease	<1.0	20 mg/l
6.	Chloride (as Cl)	19863	--
7.	Total Chromium	<0.001	0.2 mg/l
8.	Copper (Total)	<0.001	1.0 mg/l
9.	Zinc	0.005	1.0 mg/l
10.	Iron	0.036	1.0 mg/l

Note: - All values are expressed in mg/l except pH


SENIOR ENVIRONMENTAL SCIENTIST


ANDHRA PRADESH POLLUTION CONTROL BOARD
ZONAL LABORATORY, VISAKHAPATNAM

D.No.39-33-20/4/1, Behind RTA Office, Madhavadhara VUDA Colony
Visakhapatnam – 530 018.

M. RAVI ,M.Sc
Senior Environmental Scientist

Ph: 0891-2719380/481
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ANALYSIS REPORT

Sample No. : 2023 – 01 – E – 351 & 352

Sample location/Address : M/s Simhadri Super Thermal Power Project (NTPC),
Parawada, Anakapalli District.

Sample Source : E – 351: STP Inlet (Town Ship)
E – 352: STP Outlet (Town Ship)

Sample collected on : 24.1.2023

Sample submitted on : 25.01.2023

Sample collected by : Analyst (OS),Regional Office, Visakhapatnam

S.No	Parameter	E-351	E-352	Standard (mg/L)
1.	pH	6.42	7.02	5.5-9.0
2.	Total Suspended Solids	124	26	100 mg/L
3.	Chemical Oxygen Demand	296	44	250 mg/L
4.	Biochemical Oxygen Demand	90	10	30 mg/L

Note: - All values are expressed in mg/l except pH


SENIOR ENVIRONMENTAL SCIENTIST


ANDHRA PRADESH POLLUTION CONTROL BOARD
ZONAL LABORATORY, VISAKHAPATNAM

D.No.39-33-20/4/1, Behind RTA Office, Madhavadhara VUDA Colony
Visakhapatnam – 530 018.

M. RAVI ,M.Sc
Senior Environmental Scientist

Ph: 0891-2719380/481
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ANALYSIS REPORT

Sample No. : 2023 – 01 – E – 349 & 350

Sample location/Address : M/s Simhadri Super Thermal Power Project (NTPC),
Parawada, Anakapalli District.

Sample Source : E – 349: STP Inlet (Plant)
E – 350: STP Outlet (Plant)

Sample collected on : 24.1.2023

Sample submitted on : 25.01.2023

Sample collected by : Analyst (OS),Regional Office, Visakhapatnam

S.No	Parameter	E-349	E-350	Outlet discharge standards (mg/L)
1.	pH	6.35	7.26	5.5-9.0
2.	Total Suspended Solids	106	23	100 mg/L
3.	Chemical Oxygen Demand	276	54	250 mg/L
4.	Biochemical Oxygen Demand	84	15	30 mg/L

Note: - All values are expressed in mg/l except pH


SENIOR ENVIRONMENTAL SCIENTIST



ANDHRA PRADESH POLLUTION CONTROL BOARD

ZONAL LABORATORY, VISAKHAPATNAM

D.No.39-33-20/4/1, Behind RTA Office, Madhavadhara VUDA Colony
Visakhapatnam – 530 018.

M. RAVI ,M.Sc
Senior Environmental Scientist

Ph: 0891-2719380/481
e-mail:zovsplab-ses2@appcb.gov.in

ANALYSIS REPORT

Sample No. : 2023 – 01 – W – 345 to 348`

Sample location/Address : M/s Simhadri Super Thermal Power Project (NTPC),
Parawada (M), Anakapalli District.

Sample Source : W – 345: Piezo well-1
W – 346: Piezo well-2
W – 347: Piezo well-3
W – 348: Piezo well-4

Sample collected on : 24.01.2023

Sample received on : 25.01.2023

Sample collected by : Analyst (OS),Regional Office, Visakhapatnam

S. No.	Parameter	W-345	W-346	W-347	W-348	Drinking water specification IS10500:2012	
						Acceptable Limit	Permissible Limit
1.	pH	7.29	7.37	6.92	7.79	6.5-8.5	No Relaxation
2.	Conductivity (as $\mu\text{S}/\text{cm}$)	28100	8730	49300	1447	--	--
3.	Total Dissolved Solids	19248	5884	34280	920	500 mg/L	2000 mg/L
4.	Total Alkalinity (as CaCO_3)	416	104	164	147	200 mg/L	600 mg/L
5.	Total Hardness (as CaCO_3)	5200	1560	9700	260	200 mg/L	600 mg/L
6.	Chloride (as Cl)	8465	2448	15138	250.70	250 mg/L	1000 mg/L
7.	Calcium (as Ca)	600	264	1200	48	75 mg/L	200 mg/L
8.	Magnesium (as Mg)	899.1	218.7	1628	34.04	30 mg/L	100 mg/L
9.	Nitrate (as NO_3)	23.99	7.96	3.71	14.16	45 mg/L	No Relaxation
10.	Nitrite Nitrogen (as $\text{NO}_2\text{-N}$)	0.01	0.01	0.02	BDL	--	--
11.	Ammonical Nitrogen (as $\text{NH}_3\text{-N}$)	BDL	BDL	BDL	BDL	0.5 mg/L	No Relaxation
12.	Phosphate (as P)	0.03	0.63	BDL	0.26	--	--
13.	Sulphate (as SO_4)	1144.5	397.3	2545	52.24	200 mg/L	400 mg/L
14.	Fluoride (as F)	1.25	0.86	1.10	0.44	1.0 mg/L	1.5 mg/L
15.	Sodium (as Na^+)	3352	1006	6160	120.28	--	--
16.	Potassium (as K^+)	24.57	22.58	107.86	5.79	--	--
17.	Chromium (as Cr)	<0.001	<0.001	<0.001	<0.001	0.05 mg/L	No Relaxation
18.	Iron (as Fe)	0.192	0.100	0.266	0.023	0.3 mg/L	No Relaxation
19.	Nickel (as Ni)	<0.001	<0.001	0.001	<0.001	0.02 mg/L	No Relaxation
20.	Copper (as Cu)	<0.001	<0.001	<0.001	<0.001	0.05 mg/L	1.5 mg/L
21.	Zinc (as Zn)	0.002	0.002	0.001	0.001	5.0 mg/L	15 mg/L
22.	Arsenic (as As)	<0.001	0.001	<0.001	0.001	0.01 mg/L	0.05 mg/L
23.	Cadmium (as Cd)	<0.001	<0.001	<0.001	<0.001	0.003 mg/L	No relaxation
24.	Mercury (as Hg)	<0.001	<0.001	<0.001	<0.001	0.001 mg/L	No Relaxation
25.	Lead (as Pb)	0.001	<0.001	<0.001	<0.001	0.01 mg/L	No Relaxation

Note: - 1.All values are expressed in mg/l except pH & Conductivity
2.BDL: Below Detectable Limit


SENIOR ENVIRONMENTAL SCIENTIST


ANDHRA PRADESH POLLUTION CONTROL BOARD
ZONAL LABORATORY, VISAKHAPATNAM

D.No.39-33-20/4/1, Behind RTA Office, Madhavadhara VUDA Colony
Visakhapatnam – 530 018.

M. RAVI ,M.Sc
Senior Environmental Scientist

Ph: 0891-2719380/481
e-mail:zovsplab-ses2@appcb.gov.in

ANALYSIS REPORT

Sample No. : 2023 – 01 – W – 342 to 344'

Sample location/Address : M/s Simhadri Super Thermal Power Project (NTPC),
Parawada (M), Anakapalli District.

Sample Source : W – 342: Bore well sample collected in Pittavanipalem Village beside Kalapaka Road
W – 343: Bore well sample collected in Devada Village near PHC
W – 344: Bore well sample collected in MPUP School, M. Dasaripeta

Sample collected on : 24.01.2023

Sample received on : 25.01.2023

Sample collected by : Analyst (OS),Regional Office, Visakhapatnam

S. No.	Parameter	W-342	W-343	W-344	Drinking water specification IS10500:2012	
					Acceptable Limit	Permissible Limit
1.	pH	7.23	7.76	7.31	6.5-8.5	No Relaxation
2.	Electrical Conductivity (as $\mu\text{S}/\text{cm}$)	1597	1983	1615	--	--
3.	Total Dissolved Solids	1096	1340	1108	500 mg/L	2000 mg/L
4.	Total Alkalinity (as CaCO_3)	516	496	388	200 mg/L	600 mg/L
5.	Total Hardness (as CaCO_3)	448	404	372	200 mg/L	600 mg/L
6.	Chloride (as Cl)	115.06	241.06	154.27	250 mg/L	1000 mg/L
7.	Calcium (as Ca)	70.4	49.6	102.4	75 mg/L	200 mg/L
8.	Magnesium (as Mg)	66.09	68.04	13.60	30 mg/L	100 mg/L
9.	Nitrate (as NO_3)	38.07	42.92	40.72	45 mg/L	No Relaxation
10.	Nitrite Nitrogen (as $\text{NO}_2\text{-N}$)	0.05	0.09	0.12	--	--
11.	Ammonical Nitrogen (as $\text{NH}_3\text{-N}$)	0.01	BDL	0.03	0.5 mg/L	No Relaxation
12.	Phosphate (as P)	0.02	BDL	BDL	--	--
13.	Sulphate (as SO_4)	40.79	94.2	76.56	200 mg/L	400 mg/L
14.	Fluoride (as F)	0.92	1.40	0.48	1.0 mg/L	1.5 mg/L
15.	Sodium (as Na^+)	106.2	221.34	130.16	--	--
16.	Potassium (as K^+)	4.63	2.15	11.25	--	--
17.	Chromium (as Cr)	<0.001	<0.001	<0.001	0.05 mg/L	No Relaxation
18.	Iron (as Fe)	0.039	0.056	0.049	0.3 mg/L	No Relaxation
19.	Nickel (as Ni)	<0.001	<0.001	0.001	0.02 mg/L	No Relaxation
20.	Copper (as Cu)	<0.001	<0.001	<0.001	0.05 mg/L	1.5 mg/L
21.	Zinc (as Zn)	0.019	0.039	0.063	5.0 mg/L	15 mg/L
22.	Arsenic (as As)	<0.001	<0.001	<0.001	0.01 mg/L	0.05 mg/L
23.	Cadmium (as Cd)	<0.001	<0.001	<0.001	0.003 mg/L	No relaxation
24.	Mercury (as Hg)	<0.001	<0.001	<0.001	0.001 mg/L	No Relaxation
25.	Lead (as Pb)	<0.001	<0.001	<0.001	0.01 mg/L	No Relaxation

Note: - 1.All values are expressed in mg/l except pH & Conductivity
2.BDL: Below Detectable Limit

M. Ravi
SENIOR ENVIRONMENTAL SCIENTIST



**ANDHRA PRADESH POLLUTION CONTROL BOARD
ZONAL LABORATORY, VISAKHAPATNAM**

D.No.39-33-20/4, Behind RTA Office, Madhavadhara VUDA Colony,
Visakhapatnam – 530 018.

M. RAVI, M.Sc
SENIOR ENVIRONMENTAL SCIENTIST

Ph : 0891-2719380/ 481
e-mail:zovsplab-ses2@appcb.gov.in

FORM – IV

REPORT BY THE STATE BOARD ANALYST

[See Rule-14]

Report No. 2023 – 01 – ST – 005 & 006

Date:31.01.2023

I hereby certify that I M. Ravi (I) State Board Analyst duly appointed under sub-section (3) of Section 26 of the Air (Prevention and Control of Pollution) Act, 1981, received a stack emission sample of **M/s. Simhadri Super Thermal Power Project (NTPC), Parawada, Anakapalli District** collected from the **Stack attached 2X1675 TPH Coal Fired Boilers Unit –I & II (Stage-I)** collected on **29.01.2023** and received on the day of **30.01.2023** from the Analyst, Regional Office, Visakhapatnam for analysis.

The sample was in a condition fit for analysis as reported below:

I further certify that I have analyzed the above mentioned sample from **30.01.2023 to 31.01.2023** and declare the result of the analysis to be as follows: -

S.No.	Parameter	Values		Unit	Standard
		Unit -I	Unit -II		
1.	Particulate matter	74.2	91.8	mg/Nm ³	100.0
2.	Nitrogen oxides NO and NO ₂ expressed as NO ₂ (Corrected to 6% Oxygen)	273.1	322.9	mg/Nm ³	600.0
3.	Mercury (Hg)	<0.001	<0.001	mg/Nm ³	0.03

The condition of the seals, fastening and container on receipt was intact.

Note: NO_x is measured through Testo-350 flue gas analyser.

Signed this: 31.01.2023

Address:
M. Ravi,
Senior Environmental Scientist,
Zonal Laboratory,
APPCB, Visakhapatnam


SIGNATURE OF THE STATE BOARD ANALYST



**ANDHRA PRADESH POLLUTION CONTROL BOARD
ZONAL LABORATORY, VISAKHAPATNAM**

D.No.39-33-20/4, Behind RTA Office, Madhavadhara VUDA Colony,
Visakhapatnam – 530 018.

M. RAVI, M.Sc
SENIOR ENVIRONMENTAL SCIENTIST

Ph : 0891-2719380/ 481
e-mail:zovsplab-ses2@appcb.gov.in

FORM – IV

REPORT BY THE STATE BOARD ANALYST

[See Rule-14]

Report No. 2023 – 01 – ST – 007 &008

Date:31.01.2023

I hereby certify that I M. Ravi (I) State Board Analyst duly appointed under sub-section (3) of Section 26 of the Air (Prevention and Control of Pollution) Act, 1981, received a stack emission sample of **M/s. Simhadri Super Thermal Power Project (NTPC), Parawada, Anapalli District** collected from the **Stack attached 2X1675 TPH Coal Fired Boilers Unit-III & IV (Stage -II)** collected on **29.01.2023** and received on the day of **30.01.2023** from the Analyst, Regional Office, Visakhapatnam for analysis.

The sample was in a condition fit for analysis as reported below:

I further certify that I have analyzed the above mentioned sample from **30.01.2023 to 31.01.2023** and declare the result of the analysis to be as follows: -

S.No.	Parameter	Values		Unit	Standard
		Unit-III	Unit-IV		
1.	Particulate matter	39.2	68.3	mg/Nm ³	50.0
2.	Nitrogen oxides NO and NO ₂ expressed as NO ₂ (Corrected to 6% Oxygen)	269.1	494.6	mg/Nm ³	450.0 *
3.	Mercury (Hg)	<0.001	<0.001	mg/Nm ³	0.03

The condition of the seals, fastening and container on receipt was intact.

Note: NO_x is measured through Testo-350 flue gas analyser.

* Standard amended by MoE&F & CC vide notification dated 19.10.2020

Signed this: 31.01.2023

Address:
M. Ravi,
Senior Environmental Scientist,
Zonal Laboratory,
APPCB, Visakhapatnam.

SIGNATURE OF THE STATE BOARD ANALYST

Annexure-III



**ANDHRA PRADESH POLLUTION CONTROL BOARD
REGIONAL OFFICE, VISAKHAPATNAM**

*D.No.39-33-20/4/1, Madhavadhara Vuda Colony, Visakhapatnam - 530018,
Phone: 0891 -2755356*

Lr. No.3841/PCB/RO-VSP/2022

Date:31.01.2023

- Sub:** APPCB, RO, VSP - Hon'ble NGT order dt: 19.12.2022 in O.A. No. 227 of 2021 227 of 2021(SZ) & I.A. No.85 of 2022 (SZ) filed by Sri Battu Satish Reddy, Pattivanipalem Village, Visakhapatnam District against on M/s. Simhadri Super Thermal Power Project (Stage-I&II), NTPC Limited, Parawada (M), Anakapalli District (Earlier Visakhapatnam District) – Report – Communicated – Reg.
- Ref:** Hon'ble NGT order dt: 19.12.2022 in O.A. No. 227 of 2021 227 of 2021(SZ) & I.A. No.85 of 2022 (SZ).

In compliance with the Hon'ble NGT order dt: 19.12.2022 in O.A. No. 227 of 2021 227 of 2021(SZ) & I.A. No.85 of 2022 (SZ) filed by Sri Battu Satish Reddy, Pattivanipalem Village, Anakapalli District (Earlier Visakhapatnam District) against on M/s. Simhadri Super Thermal Power Project (Stage-I&II), NTPC Limited, Parawada (M), Visakhapatnam District, copy of the report with analysis reports are herewith attached for kind information.

ENVIRONMENTAL ENGINEER

**Environmental Engineer
A.P. Pollution Control Board
Regional Office, Visakhapatnam**

**To
The Occupier,
M/s. Simhadri Super Thermal Power Project (Stage-I&II),
NTPC Limited, Parawada (M),
Anakapalli District
(Earlier Visakhapatnam District)
ntpccc@ntpc.co.in, pradeepm@ntpc.co.in**



**ANDHRA PRADESH POLLUTION CONTROL BOARD
REGIONAL OFFICE, VISAKHAPATNAM**

*D.No.39-33-20/4/1, Madhavadhara Vuda Colony, Visakhapatnam - 530018,
Phone: 0891 -2755356*

Lr. No.3841/PCB/RO-VSP/2022

Date:31.01.2023

- Sub:** APPCB, RO, VSP - Hon'ble NGT order dt: 19.12.2022 in O.A. No. 227 of 2021 227 of 2021(SZ) & I.A. No.85 of 2022 (SZ) filed by Sri Battu Satish Reddy, Pattivanipalem Village, Visakhapatnam District against on M/s. Simhadri Super Thermal Power Project (Stage-I&II), NTPC Limited, Parawada (M), Anakapalli District (Earlier Visakhapatnam District) – Report – Communicated – Reg.
- Ref:** Hon'ble NGT order dt: 19.12.2022 in O.A. No. 227 of 2021 227 of 2021(SZ) & I.A. No.85 of 2022 (SZ).

In compliance with the Hon'ble NGT order dt: 19.12.2022 in O.A. No. 227 of 2021 227 of 2021(SZ) & I.A. No.85 of 2022 (SZ) filed by Sri Battu Satish Reddy, Pattivanipalem Village, Visakhapatnam District against on M/s. Simhadri Super Thermal Power Project (Stage-I&II), NTPC Limited, Parawada (M), Anakapalli District (Earlier Visakhapatnam District), copy of the report with analysis reports are herewith attached for kind information.

are herewith attached for information.

To
Sri Battu Satish Reddy,
H.No.5-55, Pittavani Palem, Kalapaka,
Pedagantyada,
Visakhapatnam District-530031
advsravan@gmail.com


ENVIRONMENTAL ENGINEER
 Environmental Engineer
 A.P. Pollution Control Board
 Regional Office, Visakhapatnam

**ANDHRA PRADESH POLLUTION CONTROL BOARD
REGIONAL OFFICE, VISAKHAPATNAM**

D.No.39-33-20/4/1, Madhavadhara Vuda Colony, Visakhapatnam - 530018

Phone: 0891 -2755356

Lr. No. 2085/PCB/RO VSP/AC/2023-

Date:31.01.2023

To
The Collector & District Magistrate,
Anakapalli District.

Sir,

Sub: APPCB, RO, VSP - Hon'ble NGT order dt: 19.12.2022 in O.A. No. 227 of 2021 227 of 2021(SZ) & I.A. No.85 of 2022 (SZ) filed by Sri Battu Satish Reddy, Pattivanipalem Village, Visakhapatnam District against on M/s. Simhadri Super Thermal Power Project (Stage-I&II), NTPC Limited, Parawada (M), Anakapalli District (Earlier Visakhapatnam District) - Analysis reports - Submitted - Reg.

Ref: Hon'ble NGT order dt: 19.12.2022 in O.A. No. 227 of 2021 227 of 2021(SZ) & I.A. No.85 of 2022 (SZ).

In compliance with the Hon'ble NGT order dt: 19.12.2022 in O.A. No. 227 of 2021 227 of 2021(SZ) & I.A. No.85 of 2022 (SZ) filed by Sri Battu Satish Reddy, Pattivanipalem Village, Visakhapatnam District against on M/s. Simhadri Super Thermal Power Project (Stage-I&II), NTPC Limited, Parawada (M), Anakapalli District (Earlier Visakhapatnam District), copy of the report with analysis reports are herewith attached for kind information.

Yours faithfully,



ENVIRONMENTAL ENGINEER

Environmental Engineer
A.P. Pollution Control Board
Regional Office, Visakhapatnam



**ANDHRA PRADESH POLLUTION CONTROL BOARD
REGIONAL OFFICE, VISAKHAPATNAM**

D.No.39-33-20/4/1, Madhavadhara Vuda Colony, Visakhapatnam - 530018,
Phone: 0891 -2755356

Lr. No.3841/PCB/RO-VSP/2022

Date:31.01.2023

To
The Chief Secretary,
State of Andhra Pradesh,
Interim Government Complex,
Veagapudi, Guntur District - 522503.
cs@ap.gov.in

To
The Secretary,
Ministry of Environment, Forest and
Climate Change, Indira Paryavaran
Bhavan Jorbagh, New Delhi-110003
Secy-moef@nic.in

To
The Member Secretary,
Central Pollution Control Board,
Parivesh Bhawan,
CBD-Cum Office Complex,
East Arjun Nagar,
Delhi-110032
mscb@cpcb.nic.in

Sir,

Sub: APPCB, RO, VSP - Hon'ble NGT order dt: 19.12.2022 in O.A. No. 227 of 2021 227 of 2021(SZ) & I.A. No.85 of 2022 (SZ) filed by Sri Battu Satish Reddy, Pattivanipalem Village, Visakhapatnam District against on M/s. Simhadri Super Thermal Power Project (Stage-I&II), NTPC Limited, Parawada (M), Anakapalli District (Earlier Visakhapatnam District) - Reports - Communicated - Reg.

Ref: Hon'ble NGT order dt: 19.12.2022 in O.A. No. 227 of 2021 227 of 2021(SZ) & I.A. No.85 of 2022 (SZ).

In compliance with the Hon'ble NGT order dt: 19.12.2022 in O.A. No. 227 of 2021 227 of 2021(SZ) & I.A. No.85 of 2022 (SZ) filed by Sri Battu Satish Reddy, Pattivanipalem Village, Visakhapatnam District against on M/s. Simhadri Super Thermal Power Project (Stage-I&II), NTPC Limited, Parawada (M), Anakapalli District (Earlier Visakhapatnam District), copy of the report with analysis reports are herewith attached for kind information.

Yours faithfully,

ENVIRONMENTAL ENGINEER
Environmental Engineer
A.P. Pollution Control Board
Regional Office, Visakhapatnam

Copy submitted to the Regional Directorate (Chennai), Central Pollution Control Board, Second Floor, 77-A South Avenue Road, Ambattur Industrial Estate, Chennai-600 058.TamilNadu (Email: cpcbrcdchennai@gmail.com, skarthikeyan.cpcb@nic.in) for information.

Copy submitted to Dr. Suresh Babu Pasupuleti, Scientist-D, Integrated Regional Office (IRO), Ministry of Environment, Forest and Climate Change, Green House Complex, Gopalreddy Road, Vijayawada - 520 010 (E-mail: iro.vijayawada-mefcc@gov.in, suresh.pasupuleti@gov.in) for information.



ANDHRA PRADESH POLLUTION CONTROL BOARD
REGIONAL OFFICE, VISAKHAPATNAM

D.No. 39-33-20/4/1, Madhavadhara Vuda Colony, Visakhapatnam - 530018,
Phone: 0891 -2755356

NOTICE

Lr No. 1011/PCB/RO-VSP/ 2023 -

Date:31.01.2023

Sub: APPCB - RO, Visakhapatnam – M/s. Simhadri Super Thermal Power Project, (Stage-I&II) NTPC Limited. Parawada, Anakapalli District (Formerly: Visakhapatnam District). – Non-Compliance with the standards – **Notice Issued** - Reg.

- Ref:**
1. CFO & HWA order No. APPCB/VSP/VSP/12334/CFO/HO/2017 Dt. 19.10.2022 valid up to 31.08.2027.
 2. Hon'ble NGT order dt: 19.12.2022 in O.A. No. 227 of 2021 227 of 2021(SZ) & I.A. No.85 of 2022 (SZ).
 3. APPCB Officials inspected the industry on 24.01.2023 to 27.01.2023.

Whereas you are operating Thermal Power Plant in the name of M/s. Simhadri Super Thermal Power Project, NTPC Ltd., Parawada, Visakhapatnam District to produce power generation-2000MW.

Whereas vide references 1st cited, the Board has issued Consent for Operation and Hazardous Waste Authorization to your industry on 19.10.2022 to produce power generation of 2000MW Stage-I(Unit-I&II)-1000MW & Stage-II (Unit-III&IV)-1000 MW which is valid up to 31.08.2027 duly stipulating certain conditions & standards to comply with.

Whereas, the Board officials has conducted Ambient Air Quality Monitoring in the industry and as per the analysis reports Particulate Matter PM_{2.5} & PM₁₀ values are exceeded the Board Standards.

Ambient Air Quality Monitoring:				
Sample Collected at	Date of Sampling	Parameter	Value (µg/m³)	Standard (µg/m³)
Near Raw water pump house	24.01.2023 to 25.01.2023	PM _{2.5}	69.0	60.0
		PM ₁₀	144.0	100.0
Near Administration Office	25.01.2023 to 26.01.2023	PM _{2.5}	85.0	60.0
		PM ₁₀	176.0	100.0

Stack Monitoring:			
Sample Collected at	Parameter	Unit-IV Values (mg/Nm³)	Standard (mg/Nm³)
Stack attached to Unit-IV	Particulate matter	68.3	50.0
	Nitrogen oxides NO and NO ₂ expressed as NO ₂ (Corrected to 6% Oxygen)	494.6	450.0*

Whereas, as per the analysis reports, the values of PM_{2.5} & PM₁₀ in Ambient Air Quality at Near Raw water pump house, Near Administration Office are exceeded the Board standards and the values for the parameters viz., Particulate matter, Nitrogen oxides NO and NO₂ for the stack attached to Unit-IV are exceeded the Board standards, thereby not complying with the standards.

Hence you are hereby directed to take immediate necessary measures and submit detailed compliance report for CFO order dt.19.10.2022 within 7 days from the date of receipt of this notice, failing which action will be initiated against your industry under section 31(A) of Air (Prevention & Control of Pollution) Amendment Act, 1987 in the interest of Public Health and Protection of Environment.

To
The Occupier,
M/s. Simhadri Super Thermal Power Project, (Stage-I & II),
NTPC Limited, Parawada,
Anakapalli District
(Earlier Visakhapatnam District).


ENVIRONMENTAL ENGINEER
Environmental Engineer
A.P. Pollution Control Board
Regional Office, Visakhapatnam