

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

OA No.314 of 2024

In the matter of:

Tribunal on its own motion **SUO MOTU** based on the News Item in The Hindu dt: 04.11.2024 titled, "*Residents stage protest against pollution caused by Vijayawada Thermal Power Station*".

And

Andhra Pradesh Pollution Control Board and Ors

....Respondents

**REPLY STATEMENT ON BEHALF OF RESPONDENT NO.5**

Respondent No. 5, above named states as follows:

1. Dr. Narla Tata Rao Thermal Power Station ("**Dr.NTTPS**"/"**Power Station**"/"**Answering Respondent**"), Respondent No.5 herein, is a thermal power station located at Ibrahimpatnam, N.T.R District, Andhra Pradesh, engaged in coal based electric power generation and is represented by its Chief Engineer (Operations. Maintenance). Dr.NTTPS is one of the flagship power plants of Andhra Pradesh Power Generation Corporation Limited (APGENCO). APGENCO is a State public sector undertaking established in 1998. APGENCO is engaged in generation of power, to meet the needs of the State of Andhra Pradesh.
2. The address for service on Respondent No. 5 is that of its Advocates M/s. Janani Shankar, Tanushree Arvind, Simran Srinivasan at No. 31, Masilamani Road, Azad Nagar, Chennai – 600 014; Email: [janani.shankar@outlook.com](mailto:janani.shankar@outlook.com); Phone: +91 9884159219.

**Brief Background of the Power Station and its operations:**

  
Chief Engineer, (O&M)  
Dr. N.T.T.P.S.  
IBRAHIMPATNAM-521 456.

3. Dr.NTTPS has 8 units installed under five stages, commissioned over the last 40 years, having total power generation capacity of 2560 MW. The details of the stage-wise commissioning of the 8 units of Dr.NTTPS are set out below:

Stage	Unit No.	Capacity	Date of Commissioning
Stage-I	Unit-I	210 MW	01.11.1979
	Unit-II	210 MW	10.10.1980
Stage-II	Unit-III	210 MW	05.10.1989
	Unit-IV	210 MW	23.08.1990
Stage-III	Unit-V	210 MW	31.03.1994
	Unit-VI	210 MW	24.02.1995
Stage IV	Unit-VII	500 MW	10.08.2009
Stage V	Unit-VIII	800 MW	20.12.2023

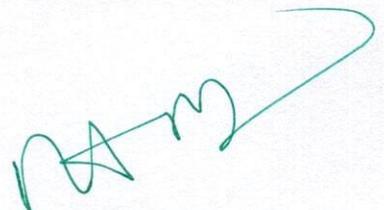
4. The said units have been set up pursuant to environmental clearances issued for Stages II to V. Stage I was set up prior to the Environment Protection Act, 1986 and hence does not have an environmental clearance. The units under Stage I, II, III, IV and V are being operated under valid Consents to Operate (“CTO”) and Hazardous Waste Authorizations (“HWA”) issued from time to time. The latest renewal of CTO and HWA for Stage I to IV, was issued by Respondent No. 1, *vide* Consent Order: APPCB/VJA/VJA/24/CFO/HO/2016 dated 24.04.2023 and are valid until 31.12.2027. The units under Stage V are being operated under CTO and HWA, issued by Respondent No. 1 *vide* Consent Order No: APPCB- 11022/66/2022- TEC-CFO-APPCB dated 28.04.2023 and are valid until 30.04.2026. The CTO and HWA for Stage I to IV and Stage V units are annexed herewith.
5. Respondent No. 5, contributes to about 20% of electrical power demand of domestic, commercial, industrial and agricultural sectors, in the State of Andhra Pradesh. Respondent No.5 is not only a critical power station but serves as a backbone for economic growth in the State. It aids the farming community by supplying power to about 15 Lakhs agricultural pump sets. The Power Station has received several honours and recognitions for energy conservation & efficiency and environment management practices over the years and is keen on remaining environmentally conscious and safe. Copies of the recognitions received by Respondent No.5, are annexed herewith.

6. It is stated that Respondent No. 5 is taking all requisite measures to mitigate and safeguard the environment in and around the power plant, in accordance with the extant environmental laws and regulations.
7. The primary plant and equipment were designed, supplied, erected and commissioned by Bharat Heavy Electricals Limited (BHEL), a reputed central government company. The equipment performance was demonstrated as per the design standards. The air pollution control equipment such as the Electrostatic Precipitators (ESPs) have been designed as per the norms laid down by the statutory authorities. The ESPs are operated and maintained to design, efficiently, by deploying required skilled, experienced engineers and operation and maintenance (O&M) staff working in three shifts, regularly.
8. Retrofitting and upgradation measures are being implemented from time to time to improve the performance of ESPs and to maintain the SPM levels within the prescribed limit of Respondent No.1, to control air pollution.
9. High efficiency (99.98%) of ESPs were provided for all the units, during their construction. Construction of parallel ESPs for Stage-I units was undertaken in 2002 at a cost of Rs.22.00 Crores. Retrofitting of ESP controllers of units -III & IV with advanced control system of Alstom-make was done at the cost of 50.00 Lakhs and 90.00 Lakhs, in 2002 & 2010, respectively.
10. The introduction of Flue Gas Conditioning (FGC) system by cylinders mounting system (Ammonia Dosing) for ESPs of Stage-I, II & III units were done in the following years:

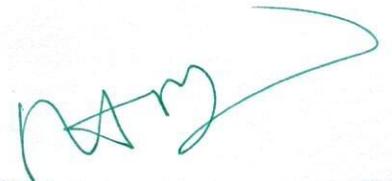
Stage-I Units	-	2012	Cost	-	17 Lakhs
Stage-II Units	-	2006 & 2007	Cost	-	12 Lakhs
Stage-III Units	-	2011.	Cost	-	8.50 Lakhs

11. Respondent No.5, undertakes replacement of damaged internal parts of ESPs during an annual overhaul of the units regularly, including arresting of air ingress in duct and ESPs, by plugging holes and leaks. Performance enhancement of pollution control equipment is being undertaken by ammonia dosing system, as an additional safeguard.

12. Respondent No.5 has sanctioned a budget of Rs. 10 Crores *vide* Proceeding No. APG/CE-CIV-TH/EENTTPS/EP&FFBudget/D.No.82/2023, dated 06.12.2023 and an additional budget of Rs.18.00 Crores to improve the performance of existing ESPs and fly ash evacuation systems and to strengthen the existing ash handling systems, was also sanctioned by Respondent No.5, *vide* Proceeding No. APG/CE-CIV-TH/EENTTPS/EP&FFBudget/D.No.03/2024, dated 01.04.2024. Respondent No.5 has placed work orders/purchase orders as per the sanctioned budget. Further, *vide* Proceeding No. APG/CE-CIV-TH/EENTTPS/EP&FFBudget/D.No.162/2024, Dt.16.12.2024, an additional budget of Rs. 31 Crores has been allocated to improve the performance of existing ESPs and fly ash evacuation systems and to strengthen the existing ash handling systems. Details of utilization of funds are annexed herewith.
13. A tender was invited for procurement of equipment/materials, spares including erection and commissioning, required to improve ash handling system for Stage-III units and operation and maintenance of the ash handling system for a period of one year, at an estimated cost of Rs. 60 crores. Pursuant to the tender, the contract has been awarded to M/s. Nagarjuna Engineering Projects, *vide* letter dated 01.04.2025. The work has already commenced and will be completed within one year from placing of the purchase order as per the long-term schedule.
14. The ESPs are functioning well with the use of designed coal. However, any deviation in the coal quality, is likely to affect efficiency of ESPs. Presently, APGENCO is forced to use whatever coal is being received from coal suppliers due to severe shortage of coal supply, to avoid disturbance to integrated grid and distress to the consumers on account of shortage of supply of power. Supply of high ash coal by the coal suppliers increased inlet dust burden. Due to high ash content in the coal and higher resistivity of ash, secondary current and secondary voltages of electrodes get affected. Under these circumstances, outlet dust levels marginally increase whenever the ash content exceeds abnormally. Therefore, to overcome these abnormal conditions, efforts are being made to further improve the performance of the ESPs by close monitoring round the clock and increasing the quality/washed coal utilization to limit particulate matter (PM) values to stay consistently within the prescribed limit.



15. Further, Respondent No.5 is taking efforts to get good quality of coal from the suppliers to bring down the PM levels well within the prescribed limits of CPCB. APGENCO management has requested Singareni Collieries Company Ltd, for supply of high-grade good quality coal, *vide* its letters dated 05.09.2023 and 11.01.2024, enclosed herewith. Washed coal is only used for Stage IV and Stage V units. Units I & II are being operated pursuant to the directions of Central Electricity Authority, GOI (CEA-TH-14-24/5/2022-TRM Division/235-335, dt 20.01.2023) to not retire old thermal units up to 2030 in view of the power shortage anticipated in the coming years. The said circular is annexed herewith. The repair and maintenance works will be taken up shortly in the said unit, upon approval of Andhra Pradesh Electricity Regulatory Commission (APERC). Hence, currently there is no proposal for using washed coal. However, for Stage-I, II & III units, when the coal availability is of high calorific value, this washed coal is being mixed as and when required to maintain stack emissions to normalcy.
16. Further, the Answering Respondent has taken the following measures to control fugitive emissions at silos and ash pond at the time of loading of ash into vehicles:
- (i) Dust extraction systems are provided at all silos to control dust emissions at the time of loading of ash into closed tankers.
  - (ii) Water sprinklers are provided at all silos for cleaning of the vehicles after loading and before leaving the silo area, to control dust emissions during movement of vehicles.
  - (iii) Water sprinklers are provided at truck parking yard area near plant gate to control fugitive emissions.
  - (iv) The open lorries are covered with tarpaulins after loading ash at silos and ash pond, to control the fugitive emission during transportation of ash.
  - (v) Rain guns have been provided along the approach area of ash pond at earthen bund No.2 to control fugitive emissions.
  - (vi) Reed grass has been developed in the ash pond area.
  - (vii) Regular sweeping of side berms of the roads along National Highway for clearing of deposited ash has already been taken up and will continue with sweeping machines.



- (viii) Green belt of 179.46 Hectare was already developed against 181 Hectare area of green belt to be developed (including Stage-V). The balance green belt will be developed during the upcoming monsoon season.
17. The ambient air quality is monitored regularly for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>, in and around the Power Station, at Ibrahimpatnam, Kondapalli, Rayanapadu and Hilltop Guest House by Dr.NTTPS. The AAQ data from May 2024 to May 2025 as submitted to Respondent No.1, are annexed herewith.
18. SO<sub>2</sub> and NO<sub>x</sub> levels are in the good to satisfactory range. Most of the time, pollution levels around Respondent No.5 fall in the satisfactory range. Pollution levels fall in the moderate range due to higher PM<sub>10</sub> which are far away from the breakpoint concentrations of moderately polluted range.
19. It is pertinent to note that the ambient air quality is also affected by the vehicular traffic on the busy National Highway (NH-9) and heavy dust generated from stone crushers units, Industries at IDA, Kondapalli, APHMEL being operated in the vicinity of Dr.NTTPS. There are about 71 stone crusher units and about 18 major and medium industries operating in the vicinity of Respondent No.5, as has been identified in the EIA Report prepared in 2013. An excerpt from the report enlisting the details of these industries and stone crushing units are annexed herewith.
20. The stack emission monitoring reports submitted to Respondent No.2 (CPCB), *vide* letter dated 07.03.2025, are enclosed herewith. As per the said report, all units are compliant with the emission norms for NO<sub>x</sub>. While units I, II and III are compliant with the particulate matter (PM) parameter, units IV, V, VI and VII, show marginally higher values compared to the norm. Respondent No. 5 is taking steps to obtain good quality of coal from the suppliers to bring down the PM levels well within the prescribed limits. The levels of SO<sub>2</sub> in units I to VII are higher than the specified norms, however, the FGD systems that are proposed to be set up, will aid controlling the SO<sub>2</sub> levels significantly, enabling Respondent No.5 to meet the emission standards by 31.12.2027 (which is the MoEF prescribed timeframe for meeting new emission standard for SO<sub>2</sub>).

**Study on Impact of Air Pollution on Crops (2011-2012)**

21. A study of the impact of air pollution, on the crops in the vicinity of Respondent No.5 was conducted by the Environment Protection Training and Research Institute, Hyderabad ("EPTRI") in 2011-2012, pursuant to directions of Respondent No.1. The study was taken up in the villages surrounding Respondent No.5, in 5Km, 10 Km, 15 Km, 20 Km and 25 Km radius. A copy of the report of EPTRI was submitted to Respondent No.1 and has been annexed herewith. The key findings from the study are described in brief:

- (i) The study area did not record the presence of any critically threatened species.
- (ii) The records of BSI and Forest department also did not indicate presence of any endemic or endangered species in this area.
- (iii) There is no weathering of leaves/leaf blotch/blight/ scorch/canker /chlorosis/ necrosis/ damping-off/abnormality in the plants etc.
- (iv) The comparative study of Air Pollution Tolerance Index (APTI) between control site and other sampling sites within 0-25 km radius of Respondent No.5 revealed that there was no obvious impact of air pollution from Respondent No.5 on the crops in the vicinity irrespective of season and crop types.
- (v) There has not been any kind of impact on the yield of crops as mentioned by Agriculture Officer, Ibrahimpatnam.
- (vi) Within 0-25 km radius of Dr. NTTPS ephemeral crops and perennial crops irrespective of place (Distance from Dr. NTTPS) showed the same trend of APTI value, hence there is no adverse effect on crops due to air pollution from Dr. NTTPS.
- (vii) Although the nutrients content were found to be less in case of potassium and better in case of nitrogen, the soils were reported to be generally good for cultivation and agriculture use.

22. Further, the report of EPTRI also noted that the soil data from secondary source collected from Ibrahimpatnam mandal and the analysis based on the standard soil classification of Agriculture Department revealed that pH of soil ranged between 7.5 and 8.83 with an average of 8.09 in the year 2010-11. Similarly, the pH ranged from 5.8 to 8.54 with an average of 7.63 in the year 2011-12, indicating that the pH level was moderately alkaline to slightly alkaline.

**Study on impact of air pollution on human health (2015 to 2017)**

23. Pursuant to the directions of Respondent No.1, Respondent No. 5 conducted health studies, from 2015 to 2017. Health status data was collected from 3 Nos. Primary Health Centers (PHCs) in the influence zone (radius of 10 Km from the power plant) and 4 PHCs in the non-influence zone (beyond 10 Km from power plant). A report on the "Studies on Air Pollution Status and Human Health conditions in Influence Zone and Non-Influence Zone" was submitted to Respondent No.1, vide CEE/O&M/SE/C/EE/C/Envnt/Dr.NTTPS/F-3/D.No.112/18,dated 12.03.2018. A copy of the report is annexed herewith.
24. The report identified the major sources of pollution in the influence zone, which are (i) major, medium industries and stone crushing units; (ii) vehicular traffic; (iii) other sources such as agricultural activities and domestic activities.
25. As per the report, the health statistics from Primary Health Centers (PHCs) indicate that Acute Respiratory Infection (ARI)/ Influenza like Illness (ILI), allergic rhinitis, asthma, chronic bronchitis, pulmonary tuberculosis, skin infections do not indicate any more occurrence in the influence zone compared to non-influence zone. Further, the observations of the medical officers of the PHCs did not indicate any severe pollution related medical cases in the influence and non-influence zone. Furthermore, investigations such as Pulmonary Function Test (PFT), Ultra Sonography (USG), ECG and general health checkups that were conducted during 12/2017 to 03/2018 in the medical camps organized by APGENCO in 5 villages in the influence zone and 4 villages in the non-influence zone, did not indicate adverse disease occurrence phenomenon in the influence zone when compared to non-influence zones of Respondent No.5
26. The report also notes that previous enquiry by District Medical and Health Officer (DMHO), Health statistics from PHCs from 2015 to 2017, and feedback from medical officers of PHCs and investigations during medical camps, did not indicate abnormal health adverse pollution related medical cases in the influence zone evidencing the serious impact on human health due to Dr.NTTPS.

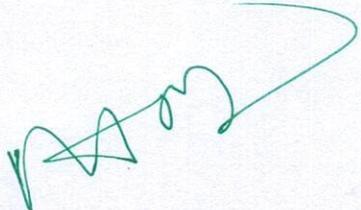
27. Respondent No.5 has also carried out a health study concerning the animals in the influence and non-influence zone of the Power Station in 2018 and report on the same was submitted to Respondent No.2, *vide* letter dated 29.10.2018. As per the said report, the study did not indicate any severe or adverse cases of diseases to animals due to air or water pollution. A copy of the report is annexed herewith.
28. As per the directions of Respondent No.1 Board, Respondent No.5 had addressed letters dated 02.04.2025 to expert organizations to carry out studies regarding impacts on human health once again and expressions of interest from universities, to carry out health studies are awaited. The relevant correspondence is enclosed herewith. Thereafter, on 05.02.2025 and 16.04.2025, Respondent No.5 has written to Siddhartha Medical College for conducting health studies. The said letters are annexed herewith.
29. Respondent No.5 states that the adverse media report of November 2024, that dust emanating from the Power Station was causing heart and lung ailments and that Respondent No.5 is causing pollution affecting the nearby crops, are sweeping allegations made without any basis and ought not to be taken *ex facie*.
30. The Monitoring (Task Force) Committee of the Respondent No.1 conducted a meeting on 25.11.2024, pursuant to which Respondent No.1 issued certain directions to Respondent No. 5, *vide* proceedings dated 10.01.2025. In response, Respondent No.5 has submitted a detailed 25-point plan of action, *vide* its letter dated 27.01.2025. The said letter is annexed herewith.
31. Further the status of the work undertaken by Respondent No.5 on the 25-point plan of action as on 01.06.2025, is enclosed herewith. The same has also been submitted to Respondent No.1. Respondent No.5 remains committed to taking adequate environmental safeguards and to this end, it has taken urgent measures to reinforce and bolster its pollution control measures, especially relating to stack emissions and handling of fly ash.
32. As of September 2024, Respondent No.5 has released funds to the tune of Rs. 11.0675 Crores & Rs. 3.4572 Crores, to the district administration, for undertaking works such as construction of PSC bridge across the CW canal at Gollapudi, supply of nutritious food

to pregnant women and lactating mothers, providing fingerlings in Krishna River, amongst other welfare activities. In addition, Respondent No.5 has been regularly conducting medical camps, veterinary camps and other welfare activities, as part of its Corporate Social Responsibility (CSR) initiatives and in compliance of the conditions under the environmental clearance. The details of the amounts released by Respondent No.5, have been furnished to the district administration, *vide* letter dated 13.09.2024. In addition to the above, *vide* letter dated 29.10.2024, a cheque for a sum of Rs.4.00 Crores has also been furnished by Respondent No.5, to the district administration, N.T.R District, to take up works relating to road, drainage, leveling, building of compound walls for burial grounds, etc., in the villages surrounding the Power Station. The letters dated 13.09.2024 and 29.10.2024, are annexed herewith.

33. Being one of the flagship power stations in the State, Respondent No.5 contributes to about 20% of electrical power demand of domestic, commercial, industrial and agricultural needs in Andhra Pradesh. Respondent No.5 also caters to farming needs, by supplying power to about fifteen lakh agricultural pump sets. The station is a backbone for economic growth in the State and for improvement of socio-economic conditions of local communities. Respondent No.5 also provides employment to about 1865 persons directly and 1343 persons, indirectly and their families are dependent on Respondent No. 5 for their livelihood.

For the reasons stated above, it is prayed that the Hon'ble National Green Tribunal, Southern Bench, Chennai may be pleased to dismiss the present Original Application in the interest of justice and pass such other order or orders as may deemed fit on proper circumstances of case.

Dated at \_\_\_\_\_ on this the 10<sup>th</sup> Day of June 2025.

  
Respondent No.5

Chief Engineer, (O&M)  
Dr. N.T.T.P.S.  
IBRAHIMPATNAM-521 456.

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

**O.A. NO. 314 OF 2024 (SZ)**

Tribunal on its own motion SUO MOTU based on the News Item in The Hindu dt: 04.11.2024 titled, "*Residents stage protest against pollution caused by Vijayawada Thermal Power Station*".

And

Andhra Pradesh Pollution Control Board and Ors.  
...Respondents

**REPLY STATEMENT ON BEHALF OF  
RESPONDENT NO. 5**

**M/s. Janani Shankar [MS 3192/2014]  
Tanushree Arvind [MS 4116/2018]  
Simran Srinivasan [MS 673/2020]**

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