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TELANGANA

Ref.No:09/EMG/E-10/2024/ 136

Date: 28.06.2024

To

Dr. G. Trinadh Kumar, IFS  
Inspector General of Forests  
Ministry of Env., Forest and Climate Change,  
Integrated Regional Office, Hyderabad 3rd Floor,  
Room No. 309, Aranya Bhawan, Opp. RBI, Safiabab – 500004,  
Hyderabad, Telangana.  
Email: iro.hyderabad-mefcc@gov.in.

Sub: Six monthly compliance report of EC accorded to NTPC Telangana Phase I(2X800MW) –  
reg.

Respected Sir,

PARIVESH Portal is upgraded to PARIVESH2.0 and new registration in PARIVESH2.0 portal for  
uploading Half Yearly EC compliance report is in the process.

Please find enclosed herewith the six-monthly compliance reports for Environmental Clearance  
(EC) accorded by MOEF&CC Vide Letter No. J- 13012/112/2010-IA. II (T) dated 20<sup>th</sup> January  
2016 for NTPC Telangana Super Thermal Power Project Phase-I (2x800MW) pertaining to the  
period October 2023 to March 2024.

Thanking you

Yours faithfully

*[Handwritten Signature]*  
F.V. Rao  
AGM-EMC

(Ch. Srinivas Reddy)  
(AGM-EMG)

Copy to:

The Environmental Engineer  
Telangana State Pollution Control Board,  
Regional Office – Ramagundam,  
Jyothinagar, Peddapalli (Dist), Telangana, India – 505215

*[Handwritten Signature]*  
28/06/2024  
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  
Dist. Peddapalli (TG)

Ramagundam Super Thermal Power Station, PO: Jyothinagar, Dist: Peddapalli, TS- 505 215:  
Telephone no.08728-272962

Regd. Office:NTPC Limited, NTPC Bhawan, Scope Complex, 7 Institutional Area, Lodhi Road, New Delhi-110 003  
No. L40101DL1975GO1007966 [www.ntpc.co.in](http://www.ntpc.co.in)

**Telangana Super Thermal Power Plant  
Phase-I (2X800MW)**

**ENVIRONMENTAL CLEARANCE  
Half-Yearly Compliance Status**

**Status as on 31.03.2024**

**Telangana Super Thermal Power Plant  
Phase-I (2 x 800MW)**

**HALF-YEARLY COMPLIANCE STATUS OF ENVIRONMENTAL CLEARANCE CONDITIONS**

**Vide Letter No. J- 13012/112/2010-IA. II (T) Dated 20<sup>th</sup> January 2016**

Sr.No.	EC Condition	Status as on 31.03.2024
<b>A</b>	<b>SPECIFIC CONDITIONS</b>	
(i)	As the Satellite Imagery submitted was not clear, a clear satellite imagery shall be submitted to the Ministry and its R.O. Further, latest authenticated. Satellite imagery shall be submitted on an annual basis to the Ministry and its R.O to monitor the alterations of the area.	<ul style="list-style-type: none"> <li>The consultancy contract for the stipulated condition was awarded to Telangana State Remote Sensing Application Centre (TRAC), Govt. of Telangana.</li> <li>TRAC study reports are submitted to Regional Office (South Zone at Chennai) &amp; Central Office of MOEF&amp;CC. <ul style="list-style-type: none"> <li>1<sup>st</sup> Report on 16.03.2018.</li> <li>2<sup>nd</sup> Report on 02.11.2019.</li> <li>3<sup>rd</sup> Report on 21.05.2021.</li> <li>4<sup>th</sup> Report on 22.05.2024.</li> </ul> </li> </ul>
(ii)	The PP shall ensure compliance to the Ministry's Notification. Dated 02.01.2014 regarding use of coal with ash content not exceeding thirty-four per cent, on quarterly average basis. This is to be ensured by incorporating a condition in the MoU/FSA with CIL etc. Also, if required, coal washery shall be installed.	Mo&EFCC notification dated 02.01.2014 has been superseded by notification dt 20.05.2020. TeSTPP is already complying with provision of notifications dt 21.05.2020 by transporting entire coal by Indian Railways. Further the condition regarding the ash content in the coal and use of beneficiated coal has been removed vide Mo&EFCC notification dated 21.05.2020.
(iii)	The Sulphur and ash content of coal shall not exceed 0.5% and 34% respectively. In case of variation of quality at any point of time, fresh reference shall be made to the Ministry and suitable amendments to the environmental clearance will have to be sought.	The condition of 34% ash content has been amended and Sulphur 0.5% been removed vide Mo&EFCC notification dated 21.05.2020.
(iv)	FGD shall be installed as the emissions are found to be almost reaching threshold limit of 80 unit (for the worst-case scenario) and also considering the cushion w.r.t NAAQS.	FGD installed and commissioned for both the units. Trial operation is under progress for both the units. Photograph is attached as Annexure IV
(v)	NTPC shall endeavor to enter into MoUs with NHAI, Associations of Cement Industries and Municipal Authorities for ensuring ash utilization in roads construction and cement manufacturing.	As per MoP Letter No:9/7/2011-S.Th.(Vo.IV) dt 22 <sup>nd</sup> September 2021, through Fly Ash should be auctioned through transparent bidding process. Telangana STPS has auctioned 4LMT of dry fly ash and were issued to successful agencies
(vi)	The PP shall examine possibility of relocating the ash pond. In case, the relocation of ash	The location of ash pond was selected after making detailed techno feasible

Sr.No.	EC Condition	Status as on 31.03.2024
	pond is not possible, precautionary measures by providing maximum green belt between ash pond and reservoir etc. shall be undertaken.	examination of all available options. Protection bund is constructed between ash pond and reservoir area. Ash ponds are provided with HDPE lining, geotextile layer and a concrete layer. Plantation of 71200 plants in 6.91Ha is developed between ash pond and reservoir with Miyawaki. Photographs is attached as Annexure V
(vii)	Study shall be conducted regarding the impact on agricultural fields in terms of heavy metal in food chain and ground water/soil for a period of one year and the report submitted to the Ministry.	A scientific study for assessment of impact on vegetation within 10 km radius of the Telangana STPP due to fly ash generated was carried through Tropical Forest Research Institute – Jabalpur. Study report was submitted to MOEF&CC Integrated Regional Office-Hyderabad on 29.11.2021. From the study results it was concluded that there is no evidence of bioaccumulation of heavy metals in the vegetation nor there is any detrimental effect in the quality of food grain.
(viii)	The Ash water Re-circulation System (AWRS) shall be immediately installed for the existing TPP. Till that time, the ash pond effluent shall not be discharged into agricultural fields etc.	AWRS (Ash Water Recirculation System) is already in place for Telangana & Ramagundam. Decanted water is recirculated to plant for reuse.. Hence there is no discharge of ash pond effluent to agricultural fields Photographs is attached as Annexure VI
(ix)	The PP shall enhance the green belt of the existing TPP in compliance to the earlier EC conditions etc.	<ul style="list-style-type: none"> <li>• Already extensive greenbelt has been developed over the previous years in the existing Ramagundam STPP and Township area and around the plant boundary.</li> <li>• Telangana STPP Phase-I units are being established within the MGR Area of Ramagundam STPP, thereby eliminating the need of land acquisition, diversion of forest land and displacement of population. Although the space is limited, within the MGR Bulb area, NTPC has undertaken plantation in all available areas within and around Telangana STPP including Ramagundam STPP.</li> <li>• Further, plantation will also continue at all available spaces in and around the project area.</li> <li>• In order to increase green cover, NTPC has also undertaken plantation outside project area as follows:</li> <li>• In 2016-17 planted 36018 plants out</li> </ul>



Sr.No.	EC Condition	Status as on 31.03.2024
		<ul style="list-style-type: none"> <li>• In 2016-17 planted 36018 plants out of which 23058 survived (67%) in 12.14Ha.</li> <li>• In 2018-19 planted 20650 plants out of which 16116 survived (82%) in 14.57Ha.</li> <li>• 2019-20 plantation carried in 4 packages <ul style="list-style-type: none"> <li>○ 10657 plants out of which 10284 survived (96.5%) 25Km of SH-1 on either sides.</li> <li>○ 3348 plants out of which 3348 survived (100%) in 0.22Ha.</li> <li>○ 83998 plants out of which 69240 survived (82.4%) in Municipal Corporation of Ramagundam.</li> <li>○ 19000 plants out of which 17297 survived (91%) in Municipal Corporation of Sultanabad.</li> </ul> </li> <li>• In 2020-21 planted 11244 plants out of which 10709 survived (95%) in 0.61Ha.</li> <li>• In 2021-22 planted 17,848plants out of which 17,437 survived (98%) in 0.94Ha.</li> <li>• In 2022-23 planted 7140 plants out of which 7140 survived (100%) in 0.41Ha.</li> <li>• In 2023-24 planted 71200 plants out of which 71200 survived (100%) in 6.91Ha.</li> </ul> <p>Plantation details attached as Annexure-VII</p>
(x)	Long term monitoring of temperature shall be undertaken on-site and off-site of the TPP, as data of decrease in temperature needs to be Verified. Further, requisite corrective action shall be taken based on the findings of the monitoring.	Being a specific scientific study, NTPC approached National Remote Center-Hyderabad for carrying trends in air temperatures over Ramagundam through Satellite Image Study. However, NRSC replied that due to technical constrain annual temperature trend could not be generated. Presently NTPC is exploring other agencies who have executed the work.
(xi)	As the data for the health studies was more than five years old, a fresh Occupational health and epidemic health disorders survey of the study area (10 km radius) shall be conducted and the report submitted to the Ministry and its R.O within one year.	M/s Pollucon Laboratories Pvt. Ltd, Surat, conducted the Occupational Health and Epidemic Health Disorders Survey of the study area (10 Km radius) has submitted the final report. A copy of the final report was submitted to the Regional Office (South Zone), MOEF&CC at Chennai on 25 <sup>th</sup> November 2018.
(xii)	As Committed, a minimum amount of Rs. 20	Budget has been increased from Rs.20Cr

Sr.No.	EC Condition	Status as on 31.03.2024
	Crores shall be earmarked as capital cost for CSR activities and the recurring cost per annum shall be as per the CSR Policy of GOI till the operation of the plant commences.	to Rs.25.89Cr for Community Development works under Telangana STPP Phase-1 project. Attached as Annexure -VIII.
(xiii)	Vision document specifying prospective plan for the site shall be formulated and submitted to the Regional office of the Ministry within six months.	NTPC has already submitted a project vision document to the Regional Office (South Zone), MoEF&CC at Chennai vide letter dated 06.04.2016. A copy of vision document is attached as Annexure IX
(xiv)	Harnessing solar power within the premises of the plant particularly at available roof tops shall be carried out and status of implementation including actual generation of solar power shall be submitted along with half yearly monitoring report.	Solar Power from roof tops of the NTPC Telangana plant is awarded to M/s. Tata Projects Limited-450KW and M/s. GE - 700KW. 700KW Solar roof top is commissioned. Balance work is in progress. Photograph is attached as Annexure X
(xv)	A long term study of radio activity and heavy metals contents of coal to be used shall be carried out through a reputed institute and results thereof analyzed every two year and reported along with monitoring reports. Thereafter mechanism for an in-built continuous monitoring for radio activity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.	MoEF&CC has granted amendment to EC General conditions No.xv vide letter No:F.No.J-13012/112/2010-IA(T); dated:21.10.2020 with the additional conditions. Status of compliance of additional conditions are enclosed as Annexure-I
(xvi)	Online continuous emission monitoring system for stack emission and ambient air shall be installed.	Online Continuous Emission Monitoring System (CEMS) for stack emission installed and their photographs are attached in Annexure XI Online Continuous Ambient Air Quality Monitoring System (AAQMS) at 4 locations are already installed and their photographs are attached in Annexure XI
(xvii)	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm <sup>3</sup> or as would be notified by the Ministry, whichever is lesser. Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling Points, transfer areas and other vulnerable dusty areas shall be provided along with an environment friendly sludge disposal system.	MoEF&CC has granted amendment to EC Specific conditions No 6A(xvii) and 6A(xxiii) vide J-13012/112/2010-IA.II(T); dated:06.03.2017. Status of compliance of the conditions are enclosed as Annexure-II.
(xviii)	Adequate dust extraction system such as cyclones/bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty area shall be provided	Adequate no. of dust suppression and dust extraction systems are installed in coal handling area including coal stockyard area, ash handling area and other vulnerable dusty area for control of fugitive dust emissions. Water sprinklers are also installed at dust prone sites to attenuate fugitive dust emission. Dry fog

Sr.No.	EC Condition	Status as on 31.03.2024
		dust suppression system is provided at all transfer points.
(xix)	COC of at least 5.0 shall be adopted.	Closed cycle cooling system is designed for 5.0 COC (Cycle of Concentration), and same is being complied
(xx)	Monitoring of surface water quantity and quality shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall also be undertaken and results/findings submitted along with half yearly monitoring report.	Monitoring of surface and groundwater quality is being carried out regularly as per stipulations and Half-Yearly reports will be submitted to MOEF&CC's Integrated Regional Office at Hyderabad during the operation phase of the project. Data is attached as Annexure XII
(xxi)	A well-designed rainwater harvesting system shall be put in place within six months, which shall comprise of rain collection from the built up and Open area in the plant premises and detailed record kept of the quantity of water harvested every year and its use.	All the main plant & offsite buildings are having provision of rainwater harvesting. 35 rainwater harvesting Pits are constructed for all the building facilities, 3 recharge basin and 2RWH storage pond are under construction.  (Total roof top area covered is 3420sqm having potential of 3610m <sup>3</sup> . 3 nos. recharge basin cover an area of 637850sqm with rainwater harvesting potential of 39498m <sup>3</sup> and 2 nos. RWH storage pond are under construction with 22509m <sup>3</sup> harvesting potential.)
(xxii)	No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up/ operation of the power plant.	No water body including natural drainage system of the area has been disturbed / shall be disturbed due to activities associated with the setting up / operation of the power plant.
(xxiii)	Wastewater generated from the plant shall be treated before discharge to comply limits prescribed by the SPCB/CPCB.	MoEF&CC has granted amendment to EC Specific conditions No 6A(xvii) and 6A(xxiii) vide J-13012/112/2010-IA.II(T); dated : 06.03.2017. Status of compliance of the conditions are enclosed as Annexure-II
(xxiv)	Online continuous effluent monitoring system shall also be installed.	Erection works of one online Continuous Effluent Monitoring System is under progress and commissioning shall be done tentatively by the month of July'24
(xxv)	Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.	All additional soil leveling of the project site done from within the sites only with all necessary precautions to protect natural drainage system of the area.
(xxvi)	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Mercury and other heavy metals (As, Hg, Cr,	Ash management & disposal scheme consist of dry ash extraction system (DAES) for dry collection of fly ash with

Sr.No.	EC Condition	Status as on 31.03.2024
	Pb etc.) shall be monitored in the bottom ash. No ash shall be disposed off in low lying area.	<p>storage facility (silos), supply of ash to entrepreneurs for utilization and for promoting ash utilization.</p> <p>Two different systems are provided for ash disposal—conventional wet slurry disposal system with ash water re-circulation for bottom ash and High Concentration Slurry Disposal (HCSD) system for fly ash. It is also ensured that no ash disposal is carried out in low lying areas.</p> <p>Analysis of bottom ash for mercury &amp; other heavy metals is attached as Annexure XIII</p>
(xxvii)	Fugitive emission of fly ash (dry or wet) shall be controlled such that no agricultural or non-agricultural land is affected. Damage to any land shall be mitigated and suitable compensation provided in consultation with the local Panchayat.	<p>Noted for compliance. Source control of dust / fugitive dust are in place with the aid of suitable pollution control devices such as dust extraction system and dust suppression system, bag filters, water fogging system, sprinklers and others.</p> <p>If any land damage is reported then suitable compensation will be provided in consultation with the local Panchayat.</p>
(xxviii)	Green Belt consisting of three tiers of plantations of native species all around plant and at least 50 m width shall be raised. Wherever 50 m width is not feasible a 20 m width shall be raised and adequate justification shall be submitted to the Ministry. Tree density shall not be less than 2500 per ha with survival rate not less than 80 %	<p>Greenbelt has been developed in existing Ramagundam STPP, Township area and around the proposed Telangana main plant site with Air Pollution Tolerant (APT) plant species. Further, 71200 plants are planted in 6.91Ha by Miyawaki method between reservoir and ash dyke for creating plantation barrier between water storage area and ash pond and its survival rate is 100%. Plantation shall also be carried out at all available spaces in and around the project area. Assistance of Telangana State Forest Development Corporation was taken for plantation works.</p>
(xxix)	CSR schemes identified based on need based assessment shall be implemented in consultation with the village Panchayat and the District administration starting from the development of project itself. As part of CSR prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken. Company shall provide separate budget for community development activities and income generating programmes.	<ul style="list-style-type: none"> <li>• Various CSR schemes have been implemented and shall be continued based on need-based survey in consultation with the village Panchayat and the District Administration.</li> <li>• Separate budget has been earmarked for implementing CSR-CD activities for the project and shall be utilized in accordance with the said stipulations.</li> <li>• NTPC provided solar lights &amp; toilets in</li> </ul>

Sr.No.	EC Condition	Status as on 31.03.2024
		<p>villages, distributed scholarships to school children &amp; organized medical camps for local population and provided vocational training for local youth.</p> <ul style="list-style-type: none"> <li>• Development of infrastructure facilities, viz., improvement in roads, bus shelters, public facilities, solar streetlamps, sanitation, toilets, medical, Schools, sports facilities etc. are already implemented.</li> </ul>
(xxx)	For proper and periodic monitoring of CSR activities, a CSR committee or a social Audit committee or a suitable credible external agency shall be appointed. CSR activities shall also be evaluated by an independent external agency. This evaluation shall be both concurrent and final.	Social audit of CSR activities was conducted by Deloitte & report submitted on July 2020.
(xxxi)	An Environmental cell comprising of at least one expert in environmental science/ engineering, ecology, occupation health and social science, shall be created preferably at the project site itself and shall be headed by an officer of appropriate superiority and qualification. It shall be ensured that the Head of the Cell shall directly report to the Head of the Plant who would be accountable for implementation of environmental regulations and social impact improvement/mitigation measures.	<p>An Environment Management Group (EMG) is already functional.</p> <p>The EMG will be responsible for implementing and monitoring the stipulations. The cell consists of one qualified expert and one officer of appropriate qualification and the head of the cell reports to The Project Head. There is sufficient trained manpower and equipment for environmental monitoring and other environmental related activities to ensure compliance with statutory requirements and interact regularly with statutory authorities.</p> <p>Organization chart and other details are attached as Annexure XIV</p>
<b>B</b>	<b>GENERAL CONDITIONS</b>	
(i)	The treated effluents conforming to the prescribed standards only shall be recirculated and reused within the plant. Arrangements shall be made that effluents and storm water do not get mixed.	<p>The concept of Zero Liquid Discharge (ZLD) shall be adopted through reuse of plant effluents.</p> <p>The project has an integrated scheme for treatment, recycle and reuse of effluents. Effluent Treatment System comprising of ETP, neutralization pit, oil and grease separator, lamella clarifier, cooling towers etc., are provided. The effluents shall be treated adequately conforming to the prescribed regulatory standards.</p> <p>An independent plant effluent drainage system is constructed to ensure that plant effluents do not mix with storm water drainage.</p> <p>Presently the Telangana Waste water RO</p>

Sr.No.	EC Condition	Status as on 31.03.2024
		Plant [ETP] is under advanced stage of commissioning with facilities likely to be completed by 31.07.2024. However, as a contingent measure, the process effluents generated in the telangana are diverted to Ramagundam ETP Plant for treatment & further recycling in the processes
(ii)	A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/ plantation.	All domestic sewage emanating from plant and township is treated in a sewage treatment plant. The treated sewage conforming to prescribed standards and is utilized for horticulture & raising green cover.
(iii)	Adequate safety measure shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional office of the Ministry.	In Coal Stack Yard (CSY) Coal stacking being done in Stockpile#1&2. Stockpile 3&4 readiness is under progress. In CSY 88 hydrants covering the entire Coal Yard with water sprinkling systems is designed. 50 charged and commissioned for Stockpile 1,2&4. Hydrants in Stockpile 3 are under various stages of erection and commissioning. Full details shall be submitted along with next report. Attached as Annexure XV
(iv)	Storage facilities for auxiliary liquid fuel such as LDO/HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil.	Storage facilities for auxiliary liquid fuel LDO/LSHS are designed in consultation with Petroleum & Explosives Safety Organisation conforming to the safety standards and where risk is minimal. A detailed Disaster Management Plan & Risk assessment including fire and explosion is available and regular mock drills are conducted as per plan in order to address any eventuality in case of an accident.
(v)	First Aid and sanitation arrangement shall be made for the drivers and other contract workers during construction phase.	All arrangements related to first aid, health & safety and sanitation for workers during construction phase of the project have been provided. Further, NTPC ensure effective compliance of the said stipulations. Various measures implemented during construction phase are: <ul style="list-style-type: none"> <li>Adequate infrastructure facilities, such as sanitation, fuel, restroom, medical facilities, safety, and suitable water supply are being provided to the labor colonies housing the work force during construction phase of the project.</li> <li>Safety equipment such as earplugs and earmuffs, helmets, face shields,</li> </ul>

Sr.No.	EC Condition	Status as on 31.03.2024
		<p>safety goggles etc. is being provided to workers engaged in high-risk areas.</p> <ul style="list-style-type: none"> <li>A first aid center is established to provide immediate medical aid to the workers and their family members. A 24 Hr ambulance is in service at site to transport injured workers to nearby hospitals.</li> </ul>
(vi)	Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 85 dB (A) from source. For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/less noisy areas.	<p>Design specification for the equipment has been made to comply with the stipulation. Personal protective equipment has been arranged through contractors during construction phase. The workers working in construction high noise area are provided with appropriate ear protection devices. Periodic examination of workers during operation phase shall be done as stipulated.</p>
(vii)	Regular monitoring of ambient air ground level concentration of SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>2.5</sub> & PM <sub>10</sub> and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, Necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the regional office of this Ministry. The data shall also be put on the website of the company.	<p>Regular monitoring of ambient air quality is being carried through NABL approved third party laboratory. Reports are submitted to Telangana SPCB on monthly basis. Consolidated report is attached as Annexure-XVI. The ambient air quality monitoring locations were decided in consultation with SPCB.</p>
(viii)	Utilization of 100% Fly Ash generated shall be made from 4 <sup>th</sup> year of operation. Status of implementation shall be reported to the Regional office of the Ministry from time to time.	<p>COD of Unit-1 was declared on 28.09.2023 and Unit-2 on 01.03.2024. Utilization of Fly ash shall comply to Gazette Notification by MOEF&amp;CC dated 31.12.2021. And status of ash utilization shall be submitted from next FY 2024-25 to MOEF&amp;CC's Integrated Regional Office at Hyderabad. Fly ash notification is attached as annexure XVII</p>
(ix)	Provision shall be made for the housing of construction labour (as applicable) within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to	<p>A labour colony with necessary infrastructure facilities was provided during construction stage. After completion of construction work the infrastructure is being removed in a phased manner.</p>

Sr.No.	EC Condition	Status as on 31.03.2024
	be removed after the completion of the project.	
(x)	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the state Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> .	The information of Environmental Clearance was published in Two newspapers widely circulated in the region on 23.01.2016 namely: 1. THE HINDU (English) & 2. EENADU (Telugu)  Copy is attached as annexure XVIII
(xi)	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad / Municipal Corporation, urban local Body and the Local NGO, if any from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	Copy of Environmental Clearance letter has been submitted to Municipal Corporation, office of Zilla Parisad and other concerned local authorities on 23.01.2016.  The Environmental Clearance was also uploaded on the NTPC website on 25.01.2016.
(xii)	The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCBB. The criteria pollutant levels namely; SPM, RSPM PM <sub>2.5</sub> & PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.	The status of compliance of stipulated EC conditions uploaded and updated periodically on company website. The latest HYC status report of the stipulated Environmental Clearance (EC) conditions is regularly being submitted to the Integrated Regional Office of MOEF&CC at Hyderabad, Zonal Office of CPCB and the SPCBB. LED screen near the project entrance gate is installed and it displays ambient air quality in terms of PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> and NO <sub>x</sub> & also stack emissions in terms of SO <sub>2</sub> , PM and NO <sub>x</sub> Photograph is attached as annexure XIX
(xiii)	The environment statement for each financial year ending 31 <sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent the respective Regional Offices of the Ministry by e-mail.	Shall comply.  COD of Unit-1 was declared on 28.09.2023 and Unit-2 on 01.03.2024. The Environment Statement for the FY 2023-24 ending 31 <sup>st</sup> March in prescribed Form-V will be submitted to the Telangana State Pollution Control Board (Telangana SPCB). A copy of it shall be uploaded in NTPC website and shall be sent to respective Regional office by mail.
(xiv)	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the	Noted and being complied. Shall be uploaded in NTPC website & shall be updated on a regular basis



Sr.No.	EC Condition	Status as on 31.03.2024
	Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests.	
(xv)	Regional Office of the Ministry of Environment & Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six-monthly basis. Criteria pollutants levels including NO <sub>x</sub> (from stack & ambient air) shall be displayed at the main gate of the power plant.	Noted and being complied. Shall be uploaded in web & will be updated on a regular basis. Criteria pollutants levels including NO <sub>x</sub> (from stack & ambient air) are displayed at the main gate of the power plant.
(xvi)	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protections measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.	Separate funds have been already allocated for Environment Protection measures. Financial Provision stipulated towards environment protection measure will not be diverted for any other purpose. COD of Unit-1 was declared on 28.09.2023 and Unit-2 on 01.03.2024. Year wise O&M expenditure shall be reported from FY2024-25 onwards.
(xvii)	The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.	Financial approval of the project was on 29.01.2016 and start of Land development work is on 09.05.2017.  COD of Unit-1 was declared on 28.09.2023 and Unit-2 on 01.03.2024.
(xviii)	Full cooperation shall be extended to the Scientists / Officers from the Ministry / Regional Office of the Ministry /CPCB / SPCB who would be monitoring the compliance of environmental status.	Noted for Compliance.  Full cooperation shall be extended to the Scientists / officers from the Ministry / MOEF&CC's Integrated Regional Office at Hyderabad / CPCB / Telangana SPCB during monitoring of the project.
7	The ministry reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction. The Ministry may also impose additional environmental conditions or modify the existing ones, if	Noted.

Sr.No.	EC Condition	Status as on 31.03.2024
	necessary.	
8	The environmental clearance accorded shall be valid for a period of 7 years from the date of issue of this letter to start operations by the power plant.	Noted. MoEF&CC vide notification no. S.O. No. 1807(E) dated 12/04/2022 amended the provisions of EIA Notification, 2006 regarding validity of Environment Clearance hence EC clearance for the station is valid for 10 years.
9	Concealing factual data or submission of false / fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environmental (Protection) Act, 1986.	Noted.
10	In case of any deviation or alteration in the project proposed including coal transportation system from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the conditions (s) imposed and to add additional environmental protection measures required, if any.	Noted.
11	The above stipulations would be enforced among others under the water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environmental (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.	Noted.
12	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.

**EC Amendment issued by MOEF&CC**  
**Vide Letter No. J- 13012/112/2010-IA. II (T) dated 08<sup>th</sup> August 2022.**

<b>Sr. No</b>	<b>EC Condition</b>	<b>Status as on 31.03.2024</b>
(i)	Area of Ash Pond shall be reduced by 50%. Reduced area (200Acre) of Ash pond shall be used for Greenbelt development, out of which 30 acres land (50m width) shall be used for creating plantation barrier between water storage area and ash pond so as to avoid mixing pollutants in the water body. Plantation shall be done by Miyawaki technique with 90% survival rate.	Area of Ash Pond is reduced to 50% by abandoning Lagoon 1 which is of 200 acres. For the financial year 2024-25, identification of locations for plantation works at Ash pond in consultation with TSFDCL is completed and waiting for quotation. During the period of 2023-24, 71200 plantations by Miyawaki method between reservoir and ash dyke for creating plantation barrier between water storage area and ash pond in an area of 7.20Ha and 100% survival rate is maintained. Details of Tree Plantation is given as Annexure VII.
(ii)	HDPE lining shall be provided to the Ash Pond and the height of the Ash Pond shall not increase beyond 16m.	HDPE lining in Ash Pond Area is completed. Current height of the bund at the lowest point is 6mts (including 1.5Mts of free board) and 2mts at highest point (including 1.5Mts of free board). In future 3 raising of 3mts each will be carried. At the lowest point in the ash pond the height of the bund will be 6+9=15mts and at the highest point height of the bund will be 2+9=11mts.
(iii)	All other condition mentioned in EC dated 20.01.2016 shall remain unchanged.	Noted.

**Annexure-I**

**Amendment in General EC Condition No-xv**  
**Proposal No IA/TG/THE/113457/2019 by MoEF&CC vide letter No:F.No.J-13012/112/2010-IA(T); dated :21.10.2020**

<b>Sr. No</b>	<b>EC Condition</b>	<b>Status as on 31.03.2024</b>
i	Radio activity and heavy metals' contents in coal and fly ash (including bottom ash) shall be carried out through a reputed institute once in a year and the analysis reports to be submitted to the Ministry and its Regional Office.	COD of Unit-1 was declared on 28.09.2023 and Unit-2 on 01.03.2024. Radio activity study through BRIT is under progress. Purchase order for the study is in place and sample collection shall be done shortly. Year wise report shall be submitted from FY2024-25 onwards.
ii	The total Radio-activity in the working areas such as coal stock yard, fly ash pond shall be calculated based on the analysis results per unit weight of coal/ash. The total radio-activity in the atmosphere is to be compared with the maximum permissible dosage levels of each person working in those areas. This is to be conducted one in a year.	COD of Unit-1 was declared on 28.09.2023 and Unit-2 on 01.03.2024. Radio activity study through BRIT is under progress. Purchase order for the study is in place and sample collection shall be done shortly. Year wise report year wise report shall be submitted from FY2024-25 onwards.
iii	While commissioning the proposed unit, the compliance of revised emission norms issued vide Notification dated 07.12.2015 and as amended time to time shall be achieved along with specific water consumption as per the notification dated 28.06.2018. The FGD System and NOX control measures such as SCR/SCNR/De-NOX burners shall be installed to achieve the revised emission norms.	COD of Unit-1 was declared on 28.09.2023 and Unit-2 on 01.03.2024. Compliance with revised norms & its amendments will be ensured FGD installed and commissioning is completed for both the Units and trial operation is under progress. For NOX reduction separated air dampers are provided High Separated Overfire Air (H-SOFA) and Low Separated Overfire Air (L-SOFA) to regulate air temperature inside the boiler. In addition to this upper Concentric Coal overfire Air (CCOFA) is provided to reduce boiler temperature, there by controlling NOx formation.
iv	As per the Revised Tariff Policy notified by Ministry of Power vide dated 28.01.2016, project proponent shall explore the use of treated sewage water from the Sewage Treatment Plant of Municipality / local bodies / similar organization located within 50km radius of the proposed power project to minimize the water drawl from surface water bodies.	In Ramagundam Municipal Corporation, construction of STP work yet to be started. Utilization shall be explored on availability of STP

**Amendment in Specific EC Condition No 6A(xvii) and 6A(xxiii)  
by MoEF&CC vide J-13012/112/2010-IA.II(T); dated:06.03.2017**

Sr. No	EC Condition	Status as on 31.03.2024
i	<p>Specific condition no.6A(xvii): High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed the standards prescribed in the MoEF&amp;CC vide Notification S.O.3305(E) dated 07.12.2015 or any other standards notified by the Ministry whichever is stringent. Emission standards notified vide S.O.3305(E) dated 07.12.2015 shall be complied with adequate dust extraction system such as cyclones / bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided along with an environment friendly sludge disposal system.</p>	<p>The High Efficiency Electrostatic Precipitators (ESP) has been designed and installed for achieving guaranteed efficiency of greater than 95 % in order to comply with the stipulation.</p> <p>Besides, adequate dust extraction systems and suitable water spray systems are included in the design of the plant to suppress/avoid dust emissions from the coal and ash handling areas. For handling of Coal slurry generated in the Coal handling plant, as per design Coal Slurry Settling Ponds (CSSP) have been envisaged which are in advanced stage of completion. Treated water from CSSP shall be utilized in Dust Suppression system.</p> <p>However, NTPC will also make all its efforts in order to comply with the latest emission notification by MOEF&amp;CC for TPP dated 07.12.2015 and control particulate emission below 30mg/Nm<sup>3</sup></p>
ii	<p>Specific condition no.6A(xxiii): Wastewater generated from the plant shall be treated and reused for various purposes within the plant. There shall not be any discharge of wastewater. Zero liquid discharge shall be adopted, and specific water consumption shall be achieved as per the MoEF&amp;CC Notification S.O.3305(E) dated 07.12.2015.</p>	<p>Treated wastewater shall be reused for plant purpose.</p> <p>The water system of Telangana STPP, Phase-I has been designed with Zero Liquid Discharge (ZLD) concept by maximum recycle/reuse of wastewater for various plant usage thereby reducing and optimizing the quantities of water requirement and effluent generation to the extent feasible.</p> <p>Presently the Telangana Waste water RO Plant [ ETP] is under advanced stage of commissioning with facilities likely to be completed by 31.07.2024. However, as a contingent measure, the process effluents generated in the telangana are diverted to Ramagundam ETP Plant for treatment &amp; further recycling in the processes.</p> <p>Accordingly, NTPC has already revised its water requirement in order to comply with the latest emission notification by MOEF&amp;CC for TPP dated 07.12.2015</p>

		and its subsequent 2018 amendment GSR 593(E) and others given from time to time.
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**Aerial view of FGD area**





## Aerial view of Miyawaki plantation





## Ash Water Recirculation System



AWRS of Telangana



AWRS of Ramagundam

**Annexure-VII**

**Details of Tree Plantation**

Location	Yr	Saplings planted	Survived samplings	Rate of survival	Area in Acres	Area in Ha	Latitude	Longitude
In between TeSTPP ash dyke Phase-1 and boundary wall.	2016-17	36,018	23,058	67%	30.00	12.14	18°42'35.85"N	79°28'34.9"E
In between proposed TeSTPP Ash Dyke Phase-2 and boundary wall.	2018-19	20,650	16,116	82%	36.00	14.57	18°42'32.62"N	79°28'23.73"E
Along 23 Kms on either side of Rajeevrahadari Avenue Plantation.	2019-20	10,657	10,286	96.50%	61.00	24.69	18° 45' 50"N	79° 27' 58"E
Phase-I Oxidation Pond Area Plantation by Miyawaki method.	2019-20	3,348	3,348	100%	0.50	0.20	18° 45' 8"N	79° 28' 59"E
In Municipal Areas under Ramagundam Municipal Corporation, Peddapalli Dist.	2019-20	84,005	69,240	82.40%	20.00	8.09	18°45' 34"N	79° 30' 22"E
In Municipal Area under Sultanabad Municipal Corporation, Peddapalli Dist.	2019-20	19,000	17,297	91.03%	10.00	4.05	18° 31' 26"N	79° 19' 4"E
Phase-II Oxidation Pond Area Plantation by Miyawaki method.	2020-21	11,244	10,709	95%	1.49	0.60	18° 45' 10"N	79° 28' 59"E
Plantation by Miyawaki method in 2 parks in RMC 1. Ganganagar park, 2. Gowthamnagar park	2021-22	17848	17437	98%	2.32	0.94	18°46'29.44"N 18°44'28.71"N	79°30'42.02"E 79°29'36.19"E
Head Works Area Plantation by Miyawaki method.	2022-23	7,140	7,140	100%	1.00	0.40	18° 46' 53"N	79° 31' 14"E
Telangana Phase-1 Ash Dyke area Plantation by Miyawaki method.	2023-24	71,200	71,200	100%	17.80	7.20	18° 42' 25"N	79° 28' 14"E

Sl. No.	CD Head & Activity	Approved Amt. (Lacs.)	Works tendered /awarded	Budget Utilized	Budget Left	Status
	11. Providing of Auto & Semi Auto Analyzers to PHCs		1360000.00	1360000.00	0.00	Completed
	12. Providing display boards under execution of CD budget		430000.00			Work yet to Start. Agency not responding.
	13. Construction of Skill Development Center		6706000.00	6706000.00	0.00	Completed
	Providing and laying CC Roads at Shalapally 5th division, Ramaguindam 4th and 5th division for the year 2018-19 under CSR-CD works		5869000.00		5869000.00	Work yet to Start
	In-principle approval for Cosnt. Of CC road along with pipe culvert parallel to proposed doubling of railway line between LC-1&LC-2		3200000.00		3200000.00	Road Length:- 500 Mtrs. Work start by 20.10.22. WBM by:- 25.10.22. Culvert by 07.11.22.
	Construction of 400 mtr road at Shalapally village				0.00	Estimate finalization and PR by 25.10.22.
	<b>Total (Rs.)</b>	<b>93900000.00</b>	<b>90036000.00</b>	<b>58937000.00</b>	<b>31099000.00</b>	
<b>6.1</b>	Financial Assistance of 2Cr to Ramagundam Police Commissionerate for const. of welfare cum community centre	200.00	20000000.00	20000000.00	0.00	Completed

Sl. No.	CD Head & Activity	Approved Amt. (Lacs.)	Works tendered /awarded	Budget Utilized	Budget Left	Status
	Additional Financial Assistance of 1.40Cr to TSPHCL for const. of welfare cum community centre	140.00	14000000.00	14000000.00	0.00	Completed
	<b>Total (Rs.)</b>	<b>34000000.00</b>	<b>34000000.00</b>	<b>34000000.00</b>	<b>0.00</b>	
7	<b>Vocational Trainings</b>	50.00				
	1)Physical Events and written test for Armed forces and Police force Training for local youth training.		1054250.00	1054250.00	0.00	Work Completed
	2)Communication & Soft skills		285000.00	285000.00	0.00	Work Completed
	3) Armed forces /Police forces training for local youth 2018-19( DOC 0602082180213)		1063000.00	1063000.00	0.00	Work Completed
	4) Coaching for competitive exams to students of SI/Constable, VRO, Group-II,III,IV & panchayat secretary of Ramagundam constituency ( Rs. 9 lacs + Rs. 1.75 lacs difference amount).		1075000.00	1075000.00	0.00	Work Completed
	5)Approval for Coaching for Final/main exam to TS police SI/constable of Ramagundam constituency (Deposited basis through RMC).		300000.00	300000.00	0.00	Work Completed
	<b>Total (Rs.)</b>	<b>5000000.00</b>	<b>3777250.00</b>	<b>3777250.00</b>	<b>0.00</b>	
8	<b>Support- Vulnerable Groups, Sp. Abled</b>	4.00				

Sl. No.	CD Head & Activity	Approved Amt. (Lacs.)	Works tendered /awarded	Budget Utilized	Budget Left	Status
	Augmentation of Govt. Support towards welfare of vulnerable persons, providing equipment's etc.,					Work Completed
8.1	Providing support under CSR-CD on the occasion of Dr.B.R.Ambedkar Vardanti – 2020		269500.00	269500.00	0.00	Work Completed
	<b>Total (Rs.)</b>	<b>400000.00</b>	<b>269500.00</b>	<b>269500.00</b>	<b>0.00</b>	
9	<b>Sports and culture</b>	5.00				
	1) Organisation Rural sports, Cultural activities etc.,		160000.00	160000.00	0.00	
	2) Financial Assistance to NTPC sports Council for Dist. Shuttle Badminton Tournament (PO 8200282046).		14770.00	14770.00	0.00	Work Completed
	<b>Total (Rs.)</b>	<b>500000.00</b>	<b>174770.00</b>	<b>174770.00</b>	<b>0.00</b>	
10	<b>Miscellaneous</b>	245.00				
	1.Providing amenities for official public bldg. of constituency MLA office-cum-residence at Ramagundam		810000.00	810000.00	0.00	Work Completed
	2. Social audit of Telangana project- NIT Warangal		258000.00	258000.00	0.00	Work Completed
	3. Const. Of BT Road connecting HKR -Anthargoan Godavari River near Ash dyke		11886554.00	11886554.00	0.00	Work Completed
	4. RO water plant and water cooler to GDK bus stand and Ramagundam railway station (PO 4600054680)		495000.00	495000.00	0.00	Work Completed

Sl. No.	CD Head & Activity	Approved Amt. (Lacs.)	Works tendered /awarded	Budget Utilized	Budget Left	Status
	5. Procurement of essential commodities in the backdrop of COVID-19 for distribution among migrant working community in and around NTPC-Ramagundam.		1557000.00	1557000.00	0.00	Work Completed
	6. Supply of Essential Food items in the backdrop of COVID-19 for distribution of daily wage earners under CSR		3927690.00	3927690.00	0.00	Work Completed
	7. construction of open drain wall from existing NTPC compound wall to existing slab culvert at Narashalapally village Division-5 on deposit work basis to RMC under CSR-CD		349000.00	349000.00	0.00	Work Completed
	Providing 2 nos display boards at Anthergoan		18000.00	18000.00	0.00	Work Completed
	<b>Total (Rs.)</b>	<b>24500000.00</b>	<b>19301244.00</b>	<b>19301244.00</b>	<b>0.00</b>	
	<b>Grand Total (Rs.)</b>	<b>25,89,00,000.00</b>	<b>24,35,74,350.20</b>	<b>18,55,24,548.39</b>	<b>58049801.81</b>	
	Total Budget	258900000				
	Works tendered/Awarded	249424350.2				
	Budget Utilized	185524549.4				
	Balance Amount (to be planned)	9475649.8				
	Works in progress	9499000				

**Roof top Solar Panels**





PHOTOGRAPHS OF CEMS



Unit # 1



Unit # 2



PHOTOGRAPHS OF AAQMS



AAQMS CISF Colony



AAQMS Solar



AAQMS Laxmipuram



AAQMS Annapurna



# Mahabal Enviro Engineers Pvt. Ltd.

PLOT NOS. 13,14,17,18, GRAMPANCHAYAT BOKHARA, CHHINDWARA ROAD, KORADI, NAGPUR, MAHARASHTRA, INDIA

Phone: 0712-2612162/2612212 email: nagpur@mahabal.com

## TEST REPORT



ASH-0076240402

Report No.:	ME-0076240402	Date: 13.04.2024
ULR No.:	-	

Name and Address of Customer	<b>NTPC LIMITED TELANGANA STPP STATION PO. JyotiNagar, Dist. Peddapalli, Telangana-505215 India</b>		PO No.: 8200406971-057-1057 Version 0 PO Date: 28.03.2024
Sample Description / Type	ASH Sample	Sampling Done by	Customer
Sampling Location	Bottom Ash Unit No #1	Sample Quantity / Packing	400g X 1 No. Polythene Bag
Date of Sampling	-	Date of Receipt of Sample	02.04.2024
Sampling Procedure	Sample tested as received		
Date of Start of Analysis	04.04.2024	Date of Completion of Analysis	13.04.2024

Sr. No.	Parameter	Unit	Result	Method Reference
	<b><u>Discipline: Chemical Testing;</u></b> <b><u>Product Group: Building Material</u></b> <b><u>(Bottom Ash)</u></b>			
1.	Lead (as Pb)	mg/kg	22.1	ASTM D-3683
2.	Antimony (as Sb)	mg/kg	4.18	ASTM D-6357-11
3.	Selenium (as Se)	mg/kg	BQL (LOQ:2)	ASTM D-4606
4.	Titanium (as Ti)	mg/kg	5657	ASTM D-6357-11
5.	Vanadium (as V)	mg/kg	91.2	ASTM A-6357-11
6.	Barium (as Ba)	mg/kg	514	ASTM D-6357-11
7.	Zinc (as Zn)	mg/kg	21.3	ASTM D-3683
8.	Mercury (as Hg)	mg/kg	BQL (LOQ:0.1)	CPCB (HW) Page No. 62
9.	Tin (as Sn)	mg/kg	4.78	ASTM D-6357-11
10.	Beryllium (as Be)	mg/kg	2.79	ASTM D-6357-11
11.	Arsenic (as As)	mg/kg	1.01	ASTM D-4606
12.	Lithium (as Li)	mg/kg	298	IS: 1355-1984 RA 2001
13.	Cadmium (as Cd)	mg/kg	BQL (LOQ:2)	ASTM D-3683
14.	Cobalt (as Co)	mg/kg	BQL (LOQ:2)	ASTM D-6357-11
15.	Chromium (as Cr)	mg/kg	104	ASTM D-3683
16.	Copper (as Cu)	mg/kg	47.0	ASTM D-3683
17.	Manganese (as Mn)	mg/kg	302	ASTM D-3683

Reviewed and  
authorised by**Harish Mendhi**  
Technical Manager  
Chemical TestingPage 1 of 2  
QF/SALE/02  
Issue No 03  
Date 05.12.2019.  
Amd 03 Date  
18.07.2023





# Mahabal Enviro Engineers Pvt. Ltd.

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Phone: 0712-2612162/2612212 email: nagpur@mahabal.com

## TEST REPORT



ASH-0076240402

Report No.:	ME-0076240402	Date: 13.04.2024
ULR No.:	-	

Sr. No.	Parameter	Unit	Result	Method Reference
18.	Molybdenum (as Mo)	mg/kg	2.19	ASTM D-6357-11
19.	Nickel (as Ni)	mg/kg	38.9	ASTM D-3683

## END OF REPORT

- Note:**
1. BQL: Below Quantification Limit.
  2. LOQ: Limit of Quantification.
  3. All results expressed on as received basis.
  4. The result listed refers only to the tested sample(s) and applicable parameter(s).
  5. This report is not to be reproduced except in full, without the written approval of the laboratory.
  6. Any complaint pertaining to the report can be addressed to mahabalreports@gmail.com







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## TEST REPORT



ASH-0077240402

Report No.:	ME-0077240402	Date: 13.04.2024
ULR No.:	-	

Name and Address of Customer	<b>NTPC LIMITED TELANGANA STPP STATION PO. JyotiNagar, Dist. Peddapalli, Telangana-505215 India</b>		PO No.: 8200406971-057-1057 Version 0 PO Date: 28.03.2024
Sample Description / Type	ASH Sample	Sampling Done by	Customer
Sampling Location	Bottom Ash Unit No #2	Sample Quantity / Packing	400g X 1 No. Polythene Bag
Date of Sampling	-	Date of Receipt of Sample	02.04.2024
Sampling Procedure	Sample tested as received		
Date of Start of Analysis	04.04.2024	Date of Completion of Analysis	13.04.2024

Sr. No.	Parameter	Unit	Result	Method Reference
	<b><u>Discipline: Chemical Testing;</u></b> <b><u>Product Group: Building Material</u></b> <b><u>(Bottom Ash)</u></b>			
1.	Lead (as Pb)	mg/kg	26.6	ASTM D-3683
2.	Antimony (as Sb)	mg/kg	6.0	ASTM D-6357-11
3.	Selenium (as Se)	mg/kg	BQL (LOQ:2)	ASTM D-4606
4.	Titanium (as Ti)	mg/kg	4527	ASTM D-6357-11
5.	Vanadium (as V)	mg/kg	76.8	ASTM A-6357-11
6.	Barium (as Ba)	mg/kg	478	ASTM D-6357-11
7.	Zinc (as Zn)	mg/kg	22.8	ASTM D-3683
8.	Mercury (as Hg)	mg/kg	BQL (LOQ:0.1)	CPCB (HW) Page No. 62
9.	Tin (as Sn)	mg/kg	4.20	ASTM D-6357-11
10.	Beryllium (as Be)	mg/kg	2.40	ASTM D-6357-11
11.	Arsenic (as As)	mg/kg	1.00	ASTM D-4606
12.	Lithium (as Li)	mg/kg	209	IS: 1355-1984 RA 2001
13.	Cadmium (as Cd)	mg/kg	BQL (LOQ:2)	ASTM D-3683
14.	Cobalt (as Co)	mg/kg	BQL (LOQ:2)	ASTM D-6357-11
15.	Chromium (as Cr)	mg/kg	99.9	ASTM D-3683
16.	Copper (as Cu)	mg/kg	37.0	ASTM D-3683
17.	Manganese (as Mn)	mg/kg	220	ASTM D-3683

Reviewed and  
authorised by

**Harish Mendhi**  
Technical Manager  
Chemical Testing





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## TEST REPORT



ASH-0077240402

Report No.:	ME-0077240402	Date: 13.04.2024
ULR No.:	-	

Sr. No.	Parameter	Unit	Result	Method Reference
18.	Molybdenum (as Mo)	mg/kg	2.0	ASTM D-6357-11
19.	Nickel (as Ni)	mg/kg	56.0	ASTM D-3683

## END OF REPORT

- Note:**
1. BQL: Below Quantification Limit.
  2. LOQ: Limit of Quantification.
  3. All results expressed on as received basis.
  4. The result listed refers only to the tested sample(s) and applicable parameter(s).
  5. This report is not to be reproduced except in full, without the written approval of the laboratory.
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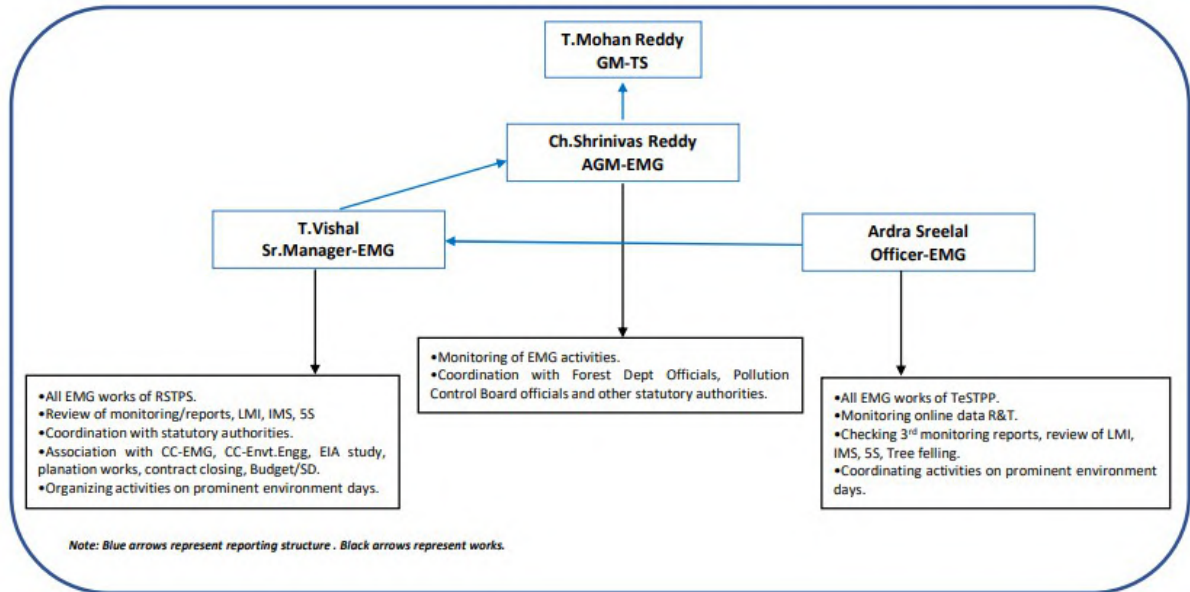
Page 2 of 2  
QF/SALE/02  
Issue No 03  
Date 05.12.2019.  
Amd 03 Date  
18.07.2023

Reviewed and  
authorised by

**Harish Mendhi**  
Technical Manager  
Chemical Testing



**EMG Dept–Organization Chart for Ramagundam and Telangana  
(w.e.f 01.05.2024)**



### Qualification:

**Senior Manager (EMG):** M.Sc Environmental Science

**Assistant Officer(EMG):** M.Tech Environmental Engineering

**Fire Hydrant System in Coal Stack Yard (CSY)**

Stock Pile 1 ,2and 4 are ready and are in operation. Stock Pile 3 readiness is under progress. At present coal is only stacked in Stock Pile 1 and 2. In coal stack yard 193/248 water sprinklers are charged.

Location	Fire Hydrants	Status
Fire hydrant in Stock Pile 1	50	In Operation
Fire hydrant in Stock Pile 2		In Operation
Fire hydrant in Stock Pile 3	38	Erection and Commission works in progress.
Fire hydrant in Stock Pile 4		In Operation

**Ambient Air Monitoring Data from November-2023 to March-2024****Note:** 1. C.I.S.F Colony    2. Anapoorna Colony    3. Laxmipuram Railway Cabin    4. 100MW Floating Solar

Date	PM-10				PM-2.5				SO <sub>2</sub>				NO <sub>x</sub>			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>November-2023</b>																
01.11.2023	54.69	51.23	52.06	51.01	17.33	19.85	18.63	21.44	7.61	12.61	6.97	9.05	15.60	14.26	15.26	15.26
02.11.2023	55.24	54.72	55.12	55.24	20.15	14.24	15.65	20.25	10.63	7.38	8.56	6.47	12.25	17.26	14.68	14.26
06.11.2023	48.26	56.14	20.16	48.55	22.63	16.28	17.28	16.52	8.09	9.45	6.33	8.18	11.25	20.29	12.29	16.37
07.11.2023	31.37	50.84	55.44	59.47	18.67	17.82	16.52	18.75	6.26	6.54	8.69	7.96	14.26	14.58	13.29	10.29
13.11.2023	42.60	42.56	49.68	45.00	19.25	16.29	17.58	12.35	5.79	5.63	7.45	4.63	13.54	15.92	10.25	11.28
14.11.2023	40.26	43.28	51.06	54.69	18.56	22.32	20.24	20.99	7.56	8.59	6.52	5.98	10.47	14.62	15.22	13.58
20.11.2023	41.26	46.23	45.63	50.01	17.55	17.49	21.22	14.26	11.25	8.36	7.35	7.48	12.25	22.61	16.28	14.88
21.11.2023	43.65	55.64	47.58	56.17	15.26	18.52	16.97	19.66	13.21	11.54	5.26	11.34	15.24	19.26	11.29	12.85
27.11.2023	52.22	49.65	48.26	58.39	21.23	20.23	11.25	20.23	8.96	10.23	9.36	12.05	13.25	13.63	10.28	15.33
28.11.2023	55.65	47.58	44.26	47.58	12.26	15.26	14.26	18.14	10.00	12.29	7.49	10.54	9.98	14.26	14.52	16.00
<b>December-2023</b>																
04.12.2023	45.55	42.97	40.17	50.10	21.60	28.96	28.00	21.09	6.27	11.70	5.63	8.14	13.26	13.35	19.96	17.34
05.12.2023	53.20	47.91	53.24	45.33	20.05	26.52	26.56	25.43	9.29	6.47	10.67	5.56	14.04	16.35	21.92	20.69
11.12.2023	30.18	43.23	48.17	41.48	21.29	33.02	24.00	29.09	6.75	8.54	8.52	7.27	12.66	19.38	23.20	14.57
12.12.2023	22.23	43.34	42.27	58.36	16.33	29.09	26.81	31.77	58.92	5.63	7.35	7.05	14.66	13.67	23.83	16.45
18.12.2023	33.46	45.32	41.46	53.78	19.62	31.50	25.88	35.83	5.45	7.45	6.01	5.07	11.20	21.69	19.05	21.06
19.12.2023	48.14	44.73	46.07	52.26	29.11	30.32	33.03	30.10	6.22	10.63	9.18	10.43	16.29	25.65	16.56	19.25
26.12.2023	51.45	43.42	49.04	47.48	25.92	35.36	29.91	34.09	7.62	9.32	9.73	11.14	15.24	21.32	18.31	18.43
27.12.2023	46.51	41.07	44.92	49.87	27.98	28.76	31.03	34.04	8.66	12.65	11.67	9.63	16.41	23.35	17.01	19.98

Note: Unit of measurement is in  $\mu\text{g}/\text{m}^3$



Note: 1. C.I.S.F Colony    2. Anapoorna Colony    3. Laxmipuram Railway Cabin    4. 100MW Floating Solar

Date	PM-10				PM-2.5				SO <sub>2</sub>				NO <sub>x</sub>			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>January-2024</b>																
02.01.2024	50.72	56.04	61.11	52.07	28.87	27.05	38.96	31.23	9.61	14.01	7.32	9.31	15.32	14.54	20.89	18.42
03.01.2024	55.14	56.77	60.88	54.47	26.43	28.29	37.14	34.07	9.63	9.54	10.89	7.18	14.21	15.64	22.11	21.14
09.01.2024	38.32	51.54	55.01	60.54	20.23	27.62	34.22	36.48	10.09	11.11	9.11	8.24	12.47	20.41	21.57	23.54
10.01.2024	34.37	53.82	54.51	62.33	18.17	38.30	26.29	37.52	6.26	8.06	8.67	9.00	17.32	17.32	24.52	19.44
16.01.2024	41.58	48.05	45.07	56.74	24.02	29.54	28.92	38.20	5.83	8.98	7.84	10.11	14.41	20.41	20.01	21.04
17.01.2024	55.33	46.98	43.45	57.53	27.49	21.05	25.17	40.74	9.56	9.44	8.47	8.48	15.28	19.37	18.15	18.24
22.01.2024	54.04	49.74	41.52	52.75	26.74	22.23	24.72	35.83	10.17	10.24	10.21	7.04	18.52	21.89	23.27	27.97
23.01.2024	52.11	54.47	55.31	54.32	28.45	24.00	31.42	38.01	8.21	12.04	9.59	11.19	17.45	21.15	19.77	20.22
29.01.2024	51.28	59.22	61.72	56.45	29.39	39.45	37.32	36.56	9.87	13.51	14.11	10.21	15.74	18.59	19.62	18.40
30.01.2024	56.13	56.54	59.13	62.14	28.00	36.67	38.44	38.97	11.10	14.21	13.18	9.54	18.40	25.43	12.24	25.62
<b>February-2024</b>																
05.02.2024	49.28	54.92	62.29	51.82	29.36	25.39	36.89	27.42	10.21	15.42	8.30	11.00	16.20	15.48	21.00	19.20
06.02.2024	54.15	53.29	61.00	53.74	30.38	29.62	34.17	26.58	10.42	10.41	11.28	9.20	15.19	16.54	22.62	22.00
12.02.2024	37.29	50.10	54.82	59.27	21.30	21.47	26.42	32.40	10.34	12.23	9.57	10.38	13.00	21.04	22.41	24.35
13.02.2024	35.42	54.32	55.34	61.89	19.81	28.36	29.62	31.89	9.52	9.20	10.21	12.50	16.89	18.27	25.24	20.38
20.02.2024	42.00	47.84	47.75	54.84	25.23	22.18	24.35	27.52	10.38	9.12	8.48	12.83	15.20	21.10	21.00	22.48
21.02.2024	53.75	45.30	44.17	55.37	29.37	22.28	23.16	28.37	11.00	10.23	9.32	10.32	16.38	20.23	19.39	19.39
26.02.2024	52.10	45.26	42.15	55.20	28.62	24.39	21.74	29.45	11.72	11.00	11.02	9.24	19.27	22.29	24.21	28.10
27.02.2024	50.38	51.84	53.15	53.28	29.80	25.28	28.00	27.41	9.63	13.37	10.00	11.92	18.23	22.40	20.36	22.54
05.02.2024	49.28	54.92	62.29	51.82	29.36	25.39	36.89	27.42	10.21	15.42	8.30	11.00	16.20	15.48	21.00	19.20
06.02.2024	54.15	53.29	61.00	53.74	30.38	29.62	34.17	26.58	10.42	10.41	11.28	9.20	15.19	16.54	22.62	22.00

Note: Unit of measurement is in µg/m<sup>3</sup>

**Note:** 1. C.I.S.F Colony    2. Anapoorna Colony    3. Laxmipuram Railway Cabin    4. 100MW Floating Solar

Date	PM-10				PM-2.5				SO2				NOX			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>March-2024</b>																
05.03.2024	50.25	56.85	64.50	49.85	27.48	26.87	38.50	26.10	11.25	16.50	9.12	12.35	17.64	14.72	19.75	18.10
06.03.2024	53.68	51.36	59.74	55.44	31.25	29.65	35.62	24.74	9.58	11.75	12.35	10.64	13.85	17.77	25.16	25.78
12.03.2024	39.75	48.92	55.18	60.58	23.45	20.48	24.13	31.69	12.65	13.68	11.26	11.58	12.85	25.15	26.85	26.18
13.03.2024	36.22	55.66	53.85	58.65	20.65	29.78	31.78	33.54	8.85	8.36	13.05	14.58	15.30	16.47	23.65	19.30
19.03.2024	46.85	49.81	49.35	57.38	24.20	23.58	21.65	28.69	13.89	10.35	7.85	13.22	16.85	22.85	24.17	24.80
20.03.2024	51.69	46.88	43.12	53.68	26.85	21.00	25.68	25.46	14.25	12.34	8.69	9.75	14.60	19.74	20.58	17.69
27.03.2024	54.69	43.65	41.20	51.37	27.23	22.55	22.85	30.15	10.52	9.87	10.83	8.69	18.45	23.85	21.58	30.78
28.03.2024	48.64	53.68	56.82	50.58	30.25	27.30	29.65	29.58	11.80	15.66	14.16	13.81	19.55	21.53	22.28	23.25

**Note:** 1) C.I.S.F. Colony.    2) Annapurna Colony,    3) Laxmipur Railway Cabin,    4) 100MW Floating Solar  
Unit of measurement is in  $\mu\text{g}/\text{m}^3$

Monitoring Carried by Approved NABL Laboratory M/s Vardan EnviroLab-Gurugram.



## Test Report

Sample Number: VEL/AP/31-40  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

Report No.: VEL/AP/2401000031-0040  
Format No.: 7.8 F-03  
Party Reference No.: Nil

Sampling & Analysis Protocol: CPCB Guidelines, IS: 5182 & STP  
Sampling Location: C.I.S.F. Colony  
Name of Sample: Ambient Air Quality Monitoring  
Sample Group: Atmospheric Pollution

Reporting Date: 03/02/2024  
Parameter Required: As Per Work Order  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Page No.: 1 of 1

## TEST RESULTS

S. No.	Concentration of Pollutants	
1.	Parameters	Mercury (as Hg)
2.	Units	ng/m <sup>3</sup>
3.	Limits As Per CPCB	--
4.	Test Method	VEL/ENV/STP/129, Issue No.- 01, Issue Date : 01/11/2021
5.	Limit of Quantification	1.0
6.	02-01-2024 To 03-01-2024	BLQ(LOQ-1.0)
7.	03-01-2024 To 04-01-2024	BLQ(LOQ-1.0)
8.	09-01-2024 To 10-01-2024	BLQ(LOQ-1.0)
9.	10-01-2024 To 11-01-2024	BLQ(LOQ-1.0)
10.	16-01-2024 To 17-01-2024	BLQ(LOQ-1.0)
11.	17-01-2024 To 18-01-2024	BLQ(LOQ-1.0)
12.	22-01-2024 To 23-01-2024	BLQ(LOQ-1.0)
13.	23-01-2024 To 24-01-2024	BLQ(LOQ-1.0)
14.	29-01-2024 To 30-01-2024	BLQ(LOQ-1.0)
15.	30-01-2024 To 31-01-2024	BLQ(LOQ-1.0)
16.	Maximum	--
17.	Minimum	--
18.	Average	--

Note: CPCB: Central Pollution Control Board.

STP: Standard Testing Procedure.

\*BLQ: Below Limit of Quantification, \*\*LOQ: Limit of Quantification.

\*\*\*End of Report\*\*\*



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## Test Report

Sample Number: VEL/AP/41-50  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

Report No.: VEL/AP/2401000041-0050  
Format No.: 7.8 F-03  
Party Reference No.: Nil

Sampling & Analysis Protocol: CPCB Guidelines, IS: 5182 & STP  
Sampling Location: Annapurna Colony  
Name of Sample: Ambient Air Quality Monitoring  
Sample Group: Atmospheric Pollution

Reporting Date: 03/02/2024  
Parameter Required: As Per Work Order  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Page No.: 1 of 1

## TEST RESULTS

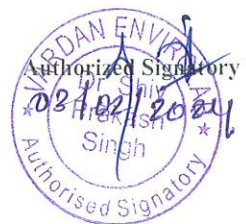
S. No.	Concentration of Pollutants	
1.	Parameters	Mercury (as Hg)
2.	Units	ng/m <sup>3</sup>
3.	Limits As Per CPCB	--
4.	Test Method	VEL/ENV/STP/129, Issue No.– 01, Issue Date : 01/11/2021
5.	Limit of Quantification	1.0
6.	02-01-2024 To 03-01-2024	BLQ(LOQ-1.0)
7.	03-01-2024 To 04-01-2024	BLQ(LOQ-1.0)
8.	09-01-2024 To 10-01-2024	BLQ(LOQ-1.0)
9.	10-01-2024 To 11-01-2024	BLQ(LOQ-1.0)
10.	16-01-2024 To 17-01-2024	BLQ(LOQ-1.0)
11.	17-01-2024 To 18-01-2024	BLQ(LOQ-1.0)
12.	22-01-2024 To 23-01-2024	BLQ(LOQ-1.0)
13.	23-01-2024 To 24-01-2024	BLQ(LOQ-1.0)
14.	29-01-2024 To 30-01-2024	BLQ(LOQ-1.0)
15.	30-01-2024 To 31-01-2024	BLQ(LOQ-1.0)
16.	Maximum	--
17.	Minimum	--
18.	Average	--

Note: CPCB: Central Pollution Control Board.

STP: Standard Testing Procedure.

\*BLQ: Below Limit of Quantification, \*\*LOQ: Limit of Quantification.

\*\*\*End of Report\*\*\*



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## Test Report

Sample Number: VEL/AP/51-60  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

Report No.: VEL/AP/2401000051-0060  
Format No.: 7.8 F-03  
Party Reference No.: Nil

Sampling & Analysis Protocol: CPCB Guidelines, IS: 5182 & STP  
Sampling Location: Laxmipur Railway Cabin  
Name of Sample: Ambient Air Quality Monitoring  
Sample Group: Atmospheric Pollution

Reporting Date: 03/02/2024  
Parameter Required: As Per Work Order  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Page No.: 1 of 1

## TEST RESULTS

S. No.	Concentration of Pollutants	
1.	Parameters	Mercury (as Hg)
2.	Units	ng/m <sup>3</sup>
3.	Limits As Per CPCB	--
4.	Test Method	VEL/ENV/STP/129, Issue No.– 01, Issue Date : 01/11/2021
5.	Limit of Quantification	1.0
6.	02-01-2024 To 03-01-2024	BLQ(LOQ-1.0)
7.	03-01-2024 To 04-01-2024	BLQ(LOQ-1.0)
8.	09-01-2024 To 10-01-2024	BLQ(LOQ-1.0)
9.	10-01-2024 To 11-01-2024	BLQ(LOQ-1.0)
10.	16-01-2024 To 17-01-2024	BLQ(LOQ-1.0)
11.	17-01-2024 To 18-01-2024	BLQ(LOQ-1.0)
12.	22-01-2024 To 23-01-2024	BLQ(LOQ-1.0)
13.	23-01-2024 To 24-01-2024	BLQ(LOQ-1.0)
14.	29-01-2024 To 30-01-2024	BLQ(LOQ-1.0)
15.	30-01-2024 To 31-01-2024	BLQ(LOQ-1.0)
16.	Maximum	--
17.	Minimum	--
18.	Average	--

Note: CPCB: Central Pollution Control Board.

STP: Standard Testing Procedure.

\*BLQ: Below Limit of Quantification, \*\*LOQ: Limit of Quantification.

\*\*\*End of Report\*\*\*



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## Test Report

Sample Number: VEL/AP/61-70  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

Report No.: VEL/AP/2401000061-0070  
Format No.: 7.8 F-03  
Party Reference No.: Nil

Sampling & Analysis Protocol: CPCB Guidelines, IS: 5182 & STP  
Sampling Location: 100 MW Floating Solar  
Name of Sample: Ambient Air Quality Monitoring  
Sample Group: Atmospheric Pollution

Reporting Date: 03/02/2024  
Parameter Required: As Per Work Order  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Page No.: 1 of 1

## TEST RESULTS

S. No.	Concentration of Pollutants	
1.	Parameters	Mercury (as Hg)
2.	Units	ng/m <sup>3</sup>
3.	Limits As Per CPCB	--
4.	Test Method	VEL/ENV/STP/129, Issue No.– 01, Issue Date : 01/11/2021
5.	Limit of Quantification	1.0
6.	02-01-2024 To 03-01-2024	BLQ(LOQ-1.0)
7.	03-01-2024 To 04-01-2024	BLQ(LOQ-1.0)
8.	09-01-2024 To 10-01-2024	BLQ(LOQ-1.0)
9.	10-01-2024 To 11-01-2024	BLQ(LOQ-1.0)
10.	16-01-2024 To 17-01-2024	BLQ(LOQ-1.0)
11.	17-01-2024 To 18-01-2024	BLQ(LOQ-1.0)
12.	22-01-2024 To 23-01-2024	BLQ(LOQ-1.0)
13.	23-01-2024 To 24-01-2024	BLQ(LOQ-1.0)
14.	29-01-2024 To 30-01-2024	BLQ(LOQ-1.0)
15.	30-01-2024 To 31-01-2024	BLQ(LOQ-1.0)
16.	Maximum	--
17.	Minimum	--
18.	Average	--

Note: CPCB: Central Pollution Control Board.

STP: Standard Testing Procedure.

\*BLQ: Below Limit of Quantification, \*\*LOQ: Limit of Quantification.

\*\*\*End of Report\*\*\*



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## Test Report

Sample Number: VEL/AP/25-32  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana - 505215

Report No.: VEL/AP/2404000025-0032  
Format No.: 7.8 F-03  
Party Reference No.: Nil

Sampling & Analysis Protocol: CPCB Guidelines, IS: 5182 & STP  
Sampling Location: C.I.S.F. Colony  
Name of Sample: Ambient Air Quality Monitoring  
Sample Group: Atmospheric Pollution

Reporting Date: 02/05/2024  
Parameter Required: As Per Work Order  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Page No.: 1 of 1

## TEST RESULTS

S. No.	Concentration of Pollutants	
1.	Parameters	Mercury (as Hg)
2.	Units	ng/m <sup>3</sup>
3.	Limits As Per CPCB	--
4.	Test Method	VEL/ENV/STP/129, Issue No.- 01, Issue Date : 01/11/2021
5.	Limit of Quantification	1.0
6.	01-04-2024 To 02-04-2024	BLQ(LOQ-1.0)
7.	02-04-2024 To 03-04-2024	BLQ(LOQ-1.0)
8.	08-04-2024 To 09-04-2024	BLQ(LOQ-1.0)
9.	09-04-2024 To 10-04-2024	BLQ(LOQ-1.0)
10.	15-04-2024 To 16-04-2024	BLQ(LOQ-1.0)
11.	16-04-2024 To 17-04-2024	BLQ(LOQ-1.0)
12.	22-04-2024 To 23-04-2024	BLQ(LOQ-1.0)
13.	23-04-2024 To 24-04-2024	BLQ(LOQ-1.0)
14.	Maximum	--
15.	Minimum	--
16.	Average	--

Note: CPCB: Central Pollution Control Board.

STP: Standard Testing Procedure.

\*BLQ: Below Limit of Quantification, \*\*LOQ: Limit of Quantification.

\*\*\*End of Report\*\*\*



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## Test Report

Sample Number: VEL/AP/33-40  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana - 505215

Report No.: VEL/AP/2404000033-0040  
Format No.: 7.8 F-03  
Party Reference No.: Nil

Sampling & Analysis Protocol: CPCB Guidelines, IS: 5182 & STP  
Sampling Location: Annapurna Colony  
Name of Sample: Ambient Air Quality Monitoring  
Sample Group: Atmospheric Pollution

Reporting Date: 02/05/2024  
Parameter Required: As Per Work Order  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Page No.: 1 of 1

## TEST RESULTS

S. No.	Concentration of Pollutants	
1.	Parameters	Mercury (as Hg)
2.	Units	ng/m <sup>3</sup>
3.	Limits As Per CPCB	--
4.	Test Method	VEL/ENV/STP/129, Issue No.- 01, Issue Date : 01/11/2021
5.	Limit of Quantification	1.0
6.	01-04-2024 To 02-04-2024	BLQ(LOQ-1.0)
7.	02-04-2024 To 03-04-2024	BLQ(LOQ-1.0)
8.	08-04-2024 To 09-04-2024	BLQ(LOQ-1.0)
9.	09-04-2024 To 10-04-2024	BLQ(LOQ-1.0)
10.	15-04-2024 To 16-04-2024	BLQ(LOQ-1.0)
11.	16-04-2024 To 17-04-2024	BLQ(LOQ-1.0)
12.	22-04-2024 To 23-04-2024	BLQ(LOQ-1.0)
13.	23-04-2024 To 24-04-2024	BLQ(LOQ-1.0)
14.	Maximum	--
15.	Minimum	--
16.	Average	--

Note: CPCB: Central Pollution Control Board.

STP: Standard Testing Procedure.

\*BLQ: Below Limit of Quantification, \*\*LOQ: Limit of Quantification.

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## Test Report

Sample Number: VEL/AP/41-48  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana - 505215

Report No.: VEL/AP/2404000041-0048  
Format No.: 7.8 F-03  
Party Reference No.: Nil

Sampling & Analysis Protocol: CPCB Guidelines, IS: 5182 & STP  
Sampling Location: Laxmipur Railway Cabin  
Name of Sample: Ambient Air Quality Monitoring  
Sample Group: Atmospheric Pollution

Reporting Date: 02/05/2024  
Parameter Required: As Per Work Order  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Page No.: 1 of 1

## TEST RESULTS

S. No.	Concentration of Pollutants	
1.	Parameters	Mercury (as Hg)
2.	Units	ng/m <sup>3</sup>
3.	Limits As Per CPCB	--
4.	Test Method	VEL/ENV/STP/129, Issue No.- 01, Issue Date : 01/11/2021
5.	Limit of Quantification	1.0
6.	01-04-2024 To 02-04-2024	BLQ(LOQ-1.0)
7.	02-04-2024 To 03-04-2024	BLQ(LOQ-1.0)
8.	08-04-2024 To 09-04-2024	BLQ(LOQ-1.0)
9.	09-04-2024 To 10-04-2024	BLQ(LOQ-1.0)
10.	15-04-2024 To 16-04-2024	BLQ(LOQ-1.0)
11.	16-04-2024 To 17-04-2024	BLQ(LOQ-1.0)
12.	22-04-2024 To 23-04-2024	BLQ(LOQ-1.0)
13.	23-04-2024 To 24-04-2024	BLQ(LOQ-1.0)
14.	Maximum	--
15.	Minimum	--
16.	Average	--

Note: CPCB: Central Pollution Control Board.

STP: Standard Testing Procedure.

\*BLQ: Below Limit of Quantification, \*\*LOQ: Limit of Quantification.

\*\*\*End of Report\*\*\*



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## Test Report

Sample Number: VEL/AP/49-56  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

Report No.: VEL/AP/2404000049-0056  
Format No.: 7.8 F-03  
Party Reference No.: Nil

Sampling & Analysis Protocol: CPCB Guidelines, IS: 5182 & STP  
Sampling Location: 100 MW Floating Solar  
Name of Sample: Ambient Air Quality Monitoring  
Sample Group: Atmospheric Pollution

Reporting Date: 02/05/2024  
Parameter Required: As Per Work Order  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Page No.: 1 of 1

## TEST RESULTS

S. No.	Concentration of Pollutants	
1.	Parameters	Mercury (as Hg)
2.	Units	ng/m <sup>3</sup>
3.	Limits As Per CPCB	--
4.	Test Method	VEL/ENV/STP/129, Issue No.– 01, Issue Date : 01/11/2021
5.	Limit of Quantification	1.0
6.	01-04-2024 To 02-04-2024	BLQ(LOQ-1.0)
7.	02-04-2024 To 03-04-2024	BLQ(LOQ-1.0)
8.	08-04-2024 To 09-04-2024	BLQ(LOQ-1.0)
9.	09-04-2024 To 10-04-2024	BLQ(LOQ-1.0)
10.	15-04-2024 To 16-04-2024	BLQ(LOQ-1.0)
11.	16-04-2024 To 17-04-2024	BLQ(LOQ-1.0)
12.	22-04-2024 To 23-04-2024	BLQ(LOQ-1.0)
13.	23-04-2024 To 24-04-2024	BLQ(LOQ-1.0)
14.	Maximum	--
15.	Minimum	--
16.	Average	--

Note: CPCB: Central Pollution Control Board.

STP: Standard Testing Procedure.

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\*\*\*End of Report\*\*\*



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सी.जी.-डी.एल.-अ.-30122022-241524  
CG-DL-E-30122022-241524

असाधारण  
EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)  
PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित  
PUBLISHED BY AUTHORITY

सं. 5926]

नई दिल्ली, शुक्रवार, दिसम्बर 30, 2022/पौष 9, 1944

No. 5926]

NEW DELHI, FRIDAY, DECEMBER 30, 2022/PAUSHA 9, 1944

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 30 दिसम्बर, 2022

**का.आ. 6169(अ).**—पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय में भारत सरकार ने पर्यावरण (संरक्षण) नियम, 1986 के नियम (5) के उप-नियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए भारत के राजपत्र, असाधारण, भाग II, खंड 3 उप खंड (ii) का.आ. 5481(अ), तारीख 31 दिसंबर, 2021 द्वारा एक अधिसूचना जारी की थी (जिन्हें इसमें इसके पश्चात इसे राख के उपयोग से संबंधित अधिसूचना कहा गया है);

और, राख के उपयोग से संबंधित अधिसूचना के उपबंधों के कार्यान्वयन के संबंध में विद्युत मंत्रालय, ताप विद्युत संयंत्रों और विभिन्न हितधारकों से अनुरोध प्राप्त हुए हैं;

और, राख के उपयोग से संबंधित अधिसूचना के कार्यान्वयन में सुचारू परिवर्तन लाने हेतु उक्त अधिसूचना के कतिपय उपबंधों में संशोधन लाना उचित है;

अतः अब, केन्द्रीय सरकार पर्यावरण (संरक्षण) नियम, 1986 के नियम (5) के उप-नियम (1), (2) और (4) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, जारी राख के उपयोग संबंधी अधिसूचना में निम्नलिखित संशोधन करती है, अर्थात्:-

जारी राख के उपयोग से संबंधित अधिसूचना में संशोधन –



## 1. पैरा क में, -

(i) उप पैरा क (4) में, तीसरे परंतुक के पश्चात निम्नलिखित परंतुक अंतर्विष्ट किया जाएगा, अर्थात् :

“परन्तु, यह भी कि इस अधिसूचना के प्रकाशन की तारीख को अथवा उसके पश्चात् स्थापित नए ताप विद्युत संयंत्र सारणी में यथा विनिर्दिष्ट 60 प्रतिशत से कम ताप विद्युत संयंत्रों के लिए विनिर्दिष्ट अनुपालन चक्र के समान प्रथम अनुपालन चक्र का अनुसरण करेंगे।

**टिप्पण :** लागू अनुपालन चक्र के अनुसार उपयोग के लक्ष्य 1 अप्रैल, 2022 से प्रभावी होंगे।”

## (ii) उप पैरा 5 में, -

(क) आरंभिक पैरा में, “इस अधिसूचना के प्रकाशन की तारीख” शब्दों के स्थान पर “1 अप्रैल, 2022” उक्त अक्षर और शब्द रखे जाएंगे;

## (ख) दूसरे परंतुक में, -

(i) “हरित पट्टी या पौधरोपण” के पश्चात, “या उप पैरा (6) में यथा विनिर्दिष्ट केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) द्वारा जारी मार्गदर्शी सिद्धांतों के अनुसार सौर ऊर्जा संभव या पवन ऊर्जा संयंत्र” शब्द कोष्ठकों और अक्षरों को अंतःस्थापित किए जाएंगे;

(ii) “केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) या” शब्द कोष्ठक और अक्षर हटा दिया जाएगा।

(iii) “एक वर्ष” शब्दों के स्थान पर “तीन वर्ष” शब्दों को रखा जाएगा।

(iv) “इस अधिसूचना के प्रकाशन की तारीख” शब्दों के स्थान पर “1 अप्रैल, 2022” उक्त अक्षर और शब्द रखे जाएंगे;

(ग) दूसरे परंतुक के पश्चात निम्नलिखित उपलब्ध अंतःस्थापित किया जाएगा, अर्थात् :

“परंतु कि पैरा क (6) में यथाविनिर्दिष्ट राख के अस्थायी भंडारण हेतु अभिहीत किए गए संचालित राख कुंड या डाइक के सिवाय सभी राख कुंडों या डाइक में संग्रहीत राख में पुरानी राख एकत्रित होगी और या तो इसे पुनःप्राप्त या स्थिर या उपयोग करना होगा।”

## (iii) उप पैरा (6) के स्थान, उप पैरा रखा जाएगा, अर्थात्:

“(6) किसी भी नए और साथ ही चालू थर्मल पावर प्लांट को 0.1 हेक्टेयर प्रति मेगा वाट (मेगावाट) के क्षेत्र में राख के अस्थायी भंडारण के लिए परिचालन राख तालाब या डाइक की अनुमति दी जा सकती है। केन्द्रीय विद्युत प्राधिकरण के परामर्श से बनाए गए केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) के दिशा-निर्देशों के अनुसार परिचालन के साथ-साथ स्थिर और पुनः दावा किए गए राख तालाबों या बांधों की तकनीकी विशिष्टताओं के अनुसार होंगे और ये दिशानिर्देश वार्षिक प्रमाणन के लिए एक प्रक्रिया भी निर्धारित करेंगे। परिचालन के साथ-साथ राख तालाब या डाइक को उसकी सुरक्षा, पर्यावरण प्रदूषण, उपलब्ध मात्रा, निपटान के तरीके, पानी की खपत या निपटान में संरक्षण, राख जल पुनर्चक्रण और हरित पट्टी, आदि पर परिचालन के साथ-साथ स्थिर और पुनः प्राप्त किया जाएगा और इस अधिसूचना के प्रकाशन की तारीख से तीन महीने भीतर रखा जाएगा :

परंतु कि 31 दिसंबर, 2021 से पहले चालू किए गए ताप विद्युत संयंत्रों के लिए 1600 मेगावाट से कम या उसके बराबर स्थापित क्षमता वाले दो परिचालन राख तालाबों या डाइकों तक और 1600 से अधिक स्थापित क्षमता वाले ताप विद्युत संयंत्रों के लिए चार परिचालन राख तालाबों या बांधों तक MW, मौजूदा राख तालाबों या बांधों से निर्दिष्ट क्षेत्र के भीतर कई लैगून होने पर, निर्देशांक के साथ स्पष्ट सीमांकन के साथ नामित किया जा सकता है, और केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी)/प्रदूषण को सूचित करेगा। नियंत्रण समिति (पीसीसी) 31 मार्च, 2023 तक :

परंतु आगे कि नए थर्मल पावर प्लांट या मौजूदा थर्मल पावर प्लांट के विस्तार के मामले में केवल एक ऐश पोंड या डाइक की अनुमति दी जाएगी 31 दिसंबर, 2021 को या उसके बाद, जो केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी)/प्रदूषण नियंत्रण समिति (पीसीसी) को कमीशन की तारीख से 3 महीने के भीतर निर्देशांक के साथ सीमांकन के विवरण की सूचना देगा। थर्मल पावर प्लांट या 31 मार्च, 2023 तक, जो भी बाद में हो :

परंतु यह और कि कोयला और लिग्नाइट आधारित तापीय विद्युत संयंत्रों को आगे किसी भी नए कार्यशील राख कुंड या डाइक को स्थापित करने या नाम निर्दिष्ट करने की अनुमति नहीं दी जाएगी।

परंतु यह और कि कार्यशील राख कुंड या डाइक की 0.1 हे./मेगावाट (एमडब्ल्यू) का विनिर्देशन तारीख 3 नवम्बर, 2009 से पूर्व चालू तापीय विद्युत संयंत्रों पर लागू नहीं होंगे।”

2. पैरा ख में, -

(i) उप पैरा (1) में, “300 कि.मी. के भीतर” शब्दों कोष्ठकों और आंकड़ों के स्थान पर “300 कि.मी. के रेडियस के भीतर” शब्द कोष्ठक और आंकड़े रखे जाएंगे।

(ii) उप पैरा (8) में, उच्चतर “वैकल्पिक उत्पादों के मूल्य से अधिक” शब्दों के स्थान पर “केन्द्रीय लोक कार्य विभाग (सीपीडब्ल्यूडी) या संबंधित लोक कार्य विभाग (पीडब्ल्यूडी) द्वारा विनिर्दिष्ट दरों की अनुसूची में उल्लिखित मूल्य या दरों की अनुसूची के अधीन निर्धारित न होने परल वैकल्पिक उत्पादों का मूल्य” शब्द रखे जाएंगे।

3. पैरा घ में, -

(i) उप पैरा (2) के स्थान, उप पैरा रखा जाएगा, अर्थात्:

“(2) जिन व्यक्तियों या उपयोगकर्ता या एजेंसियों को थर्मल पावर प्लांट के मालिक द्वारा नोटिस दिया गया है, अगर वे राख के उपयोग के उद्देश्य से पहले से ही अन्य एजेंसियों के साथ करार कर चुके हैं तो थर्मल पावर प्लांट को तदनुसार सूचित करेंगे और यदि वे उपयोग नहीं कर सकते हैं कोई राख या कम मात्रा का उपयोग कर सकता है।”

(ii) उप-पैरा (2) के पश्चात्, निम्नलिखित उप-पैरा अंतःस्थापित किया जाएगा, अर्थात्:

“(3) जिन व्यक्तियों या उपभोक्ता अभिकरणों को, यदि वे राख आधारित उत्पादों के उपयोग के उद्देश्य से अन्य अभिकरणों के साथ पहले से जुड़े हुए हैं, ऐश ब्रिक्स या टाइल्स या सिंटेड ऐश ऐग्रीगेट या अन्य राख आधारित उत्पादों के विनिर्माताओं के द्वारा नोटिस दिया गया है तो उन्हें ऐश ब्रिक्स या आइल्स या सिंटेड ऐश ऐग्रीगेट या अन्य राख आधारित उत्पादों के विनिर्माताओं को सूचित करना होगा, तदनुसार, यदि वे राख आधारित उत्पादों का उपयोग नहीं कर सकते या कम प्रमात्रा में उपयोग कर सकते हैं।”

2. यह अधिसूचना राजपत्र में प्रकाशन की तारीख से प्रवृत्त होगी।

[फा. सं. एचएसएम - 9/1/2019- एचएसएम]

नरेश पाल गंगवार, अपर सचिव

**टिप्पण :** मूल अधिसूचना भारत के राजपत्र, असाधारण, भाग-II, खंड 3, उप-खंड (ii) सं. एस 5481(अ) तारीख 31 दिसम्बर, 2021 के द्वारा में प्रकाशित की गई।

## MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

### NOTIFICATION

New Delhi, the 30th December, 2022

**S.O. 6169(E).**—Whereas, the Government of India, Ministry of Environment, Forest and Climate Change, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with clause (d) of sub-rule (3) of rule (5) of the Environment (Protection) Rules, 1986, issued a notification published in the Gazette of India, Extraordinary, Part II, Section 3, sub-section (ii) *vide* S.O.5481(E), dated the 31<sup>st</sup> December, 2021 (herein after referred to as the ash utilisation notification);

And whereas, requests have been received from Ministry of Power, thermal power plants and various stakeholders regarding implementation of provisions of the ash utilisation notification;

And whereas, it is expedient to make amendments to certain provisions of the said notification to have smooth transitioning in implementation of the ash utilisation notification;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with of sub-rule (1), (2) and (4) of rule (5) of the Environment (Protection) Rules, 1986, the Central Government hereby makes the following amendments in the ash utilisation notification namely:-

In the ash utilisation notification,-

(1) in paragraph A,-

(i) in sub-paragraph (4), after the third proviso, the following shall be inserted, namely,-

“Provided also that new thermal power plants commissioned on or after the date of publication of this notification shall follow the first compliance cycle similar to the compliance cycle specified for thermal power plants having utilisation per cent. less than 60 per cent. as specified in the table.

Note: The utilisation targets as per the applicable compliance cycle shall commence from 1<sup>st</sup> April, 2022.”.

(ii) in sub- paragraph (5),-

(a) in the opening paragraph, for the words “the date of publication of this notification”, the figures, letters and word “1<sup>st</sup> April, 2022” shall be substituted;

(b) in the second proviso, -

(i) after the words “green belt or plantation”, the words, brackets, letters and figure “or solar power plant or wind power plant as per the guidelines issued by the Central Pollution Control Board (CPCB) as specified in sub-para (6)” shall be inserted,

(ii) the words, brackets and letters “Central Pollution Control Board (CPCB) or” shall be deleted,

(iii) for the words “a year”, the words “three years” shall be substituted,

(iv) for the words “the date of publication of this notification”, the figures, letters and word “1<sup>st</sup> April, 2022” shall be substituted.

(c) after the second proviso, the following proviso shall be inserted, namely:

“Provided that ash stored in all ash ponds or dykes other than operational ash pond or dyke designated for temporary storage of ash as specified in sub-para (6) shall constitute the legacy ash and either to be reclaimed or stabilised or utilised.”.

(iii) for sub- paragraph (6), the following sub-para shall be substituted, namely,-

“(6) Any new as well as operational thermal power plant may be permitted operational ash pond or dyke for temporary storage of ash within an area of 0.1 hectare per Mega Watt (MW). Technical specifications of operational as well as stabilised and reclaimed ash ponds or dykes shall be as per the guidelines of the Central Pollution Control Board (CPCB) made in consultation with the Central Electricity Authority (CEA) and these guidelines shall also lay down a procedure for annual certification of the operational as well as stabilised and reclaimed ash pond or dyke on its safety, environment pollution, available volume, mode of disposal, water consumption or conservation in disposal, ash water recycling and green belt, etc. and shall be put in place within three months from the date of publication of this notification:

Provided that up to two operational ash ponds or dykes for thermal power plants commissioned before 31<sup>st</sup> December, 2021, having installed capacity less than or equal to 1600 MW, and up to four operational ash ponds or dykes for thermal power plants having installed capacity more than 1600 MW, having multiple lagoons, within the specified area from the existing ash ponds or dykes, may be designated with clear demarcation along with coordinates, and shall inform to Central Pollution Control Board (CPCB) and concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) by 31<sup>st</sup> March, 2023:

Provided further that one ash pond or dyke shall be permitted in case of new thermal power plants or expansion of existing thermal power plants commissioned on or after 31<sup>st</sup> December, 2021, which shall inform the details of demarcation along with coordinates to Central Pollution Control Board (CPCB) and concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) within 3 months from the date of commissioning of thermal power plant or by 31<sup>st</sup> March, 2023, whichever is later:

Provided also that coal and lignite based thermal power plants shall not be allowed to further establish or designate any new operational ash pond or dyke:

Provided also that specification of 0.1 hectare per Mega Watt (MW) of an operational ash pond or dyke shall not be applicable for the thermal power plants commissioned before 03<sup>rd</sup> November, 2009.”.

(2) in paragraph B,-

(i) in sub- paragraph (1), for the words, figures and letters “within 300 kms”, the words, figures and letters “within a radius of 300 kms” shall be substituted,

(ii) in sub- paragraph (8), for the words “higher than the price of alternative products”, the words, brackets and letters “more than the price mentioned in the Schedule of Rates as specified by Central Public Works Department (CPWD) or concerned Public Works Department (PWD) or price of alternative products, if not mentioned in the Schedule of Rates.” shall be substituted.

(3) in paragraph -D, -

(i) for sub- paragraph (2), the following sub- paragraph shall be substituted, namely,-

“(2) Persons or user agencies who have been served notice by owner of thermal power plants, if they have already tied up with other agencies for the purpose of utilisation of ash, shall inform the thermal power plant accordingly, and if they cannot use any ash or may use reduced quantity.”.

(ii) after sub- paragraph (2), the following sub-para shall be inserted, namely,-

“(3) Persons or user agencies who have been served notice by manufacturers of ash bricks or tiles or sintered ash aggregate or other ash based products, if they have already tied up with other agencies for the purpose of utilisation of ash based products, shall inform the manufacturer of ash bricks or tiles or sintered ash aggregate or other ash based products, accordingly, and if they cannot use ash based products, or may use reduced quantity.”.

2. This notification shall come into force on the date of its publication in the Official Gazette.

[F. No. HSM-9/1/2019-HSM]

NARESH PAL GANGWAR, Addl. Secy.

**Note :** The principal notification was published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii), dated the 31<sup>st</sup> December, 2021, *vide* number S.O.5481 (E), dated the 31<sup>st</sup> December, 2021.

# एनटीपीसी - रामगुंडम / NTPC-Ramagundam

अखबार का नाम/Newspaper Name THE HINDU & DEENADU

प्रकाशन दिनांक/Publication Date 23.01.16 संस्करण/Edition HYD & KAR श्रेणी/Category .....

THE HINDU

**THE HINDU**

**NTPC Limited**  
(A Govt. of India Enterprise)

**ENVIRONMENT CLEARANCE ACCORDED**

Vide letter no: J-13012/112/2010-IA.II (T) dated 20.01.2016, Expansion of Ramagundam STPP by addition of 2x800 MW (Stage-IV, Telangana STPP Phase-I) at Village & Mandal Ramagundam, District Karimnagar, Telangana by M/s. NTPC Ltd. has been accorded environmental clearance and the copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>

**NTPC-Ramagundam**  
Registered Office: NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodi Road, New Delhi-110003, CIN: L40101DL1975GOI007966.

**Leading the Power Sector**

**SOUTH CENTRAL RAILWAY**  
Details of the Tender Notices of S.C Railway can be seen on our website : [www.scr.indianrailways.gov.in](http://www.scr.indianrailways.gov.in)

T.No.: G/E.35.36.37.38.39./2015-2016/Sr.DEEM/GTL  
Date: 20-01-2016  
Electrical Works

Sealed Tenders for the following works are invited from Electrical Contractors & Labour Licence holder tenderers.

1. Tender No: G/E.35/2015-16/Sr.DEEM/GTL Description of work: Guntakal Division - Improvements to lighting arrangements with double ended Swaged type tubular poles all

**CENT WORKS NOTICE IN**

The Executives Hyderabad Division No. Bhawan, Sub 500 095, President of tenders from contractors and above Category/ A contractor category and firms having satisfy the eligibility system of the NIT No. 15 18 Name Addressable alarm system Office building Estimated Earnest Money Period of 6 months, Last submission 03.02.2016.

\*All amendment extension, cl uploaded to will not newspaper regularly visit themselves

DEENADU

**DEENADU**

**GURUDATTA DEVELOPERS**  
Hasthinapuram, Hyd-79.  
Ph : 040-65555933

**NTPC Limited**  
(A Govt. of India Enterprise)

**పర్యావరణ క్లియరెన్స్ మంజూరు చేయబడినది**

జి.ఎం. : J-13012/112/2010-IA.II (T) తేది 20-1-2016 తేదీన, M/s NTPC లిమిటెడ్ తరఫున, కరీంనగర్ జిల్లా, రామగుండం గ్రామం మరియు మండలం వద్ద 2x800 MW (స్టేజ్-IV, తెలంగాణ STPP, ఫేజ్-I) యొక్క అదనపు కేంద్ర వ్యాధి రామగుండం STPP యొక్క విస్తరణకు, పర్యావరణ క్లియరెన్స్ మంజూరు చేయబడినది మరియు క్లియరెన్స్ లేక తాత్పర్యం ఉన్న కార్యాచరణ మంజూరి/కమిటీ వద్ద లభ్యమవుతుంది మరియు <http://envfor.nic.in> వద్ద పర్యావరణ మరియు అనుబంధ మంజూరీల కొరత యొక్క వెబ్ సైట్ నుండి కూడా చూడవచ్చు. NTPC రామగుండం సమాధికి కార్యాచరణము: NTPC భవన్, SCOPE కాంప్లెక్స్ 7, ఇన్స్టిట్యూషనల్ ఏరియా, లోడి రోడ్, న్యూ ఢిల్లీ-110003, CIN: L40101DL1975GOI007966.

**విద్యుత్ రంగంలో అగ్రగామి**

**దేశ ప్రభుత్వము**  
బ్యాటిఫికేషన్ కార్యకర్తల నియంత్రణ

**South Central Railway**  
Details of the Tender Notices of S.C Railway can be seen on our website : [www.scr.indianrailways.gov.in](http://www.scr.indianrailways.gov.in)

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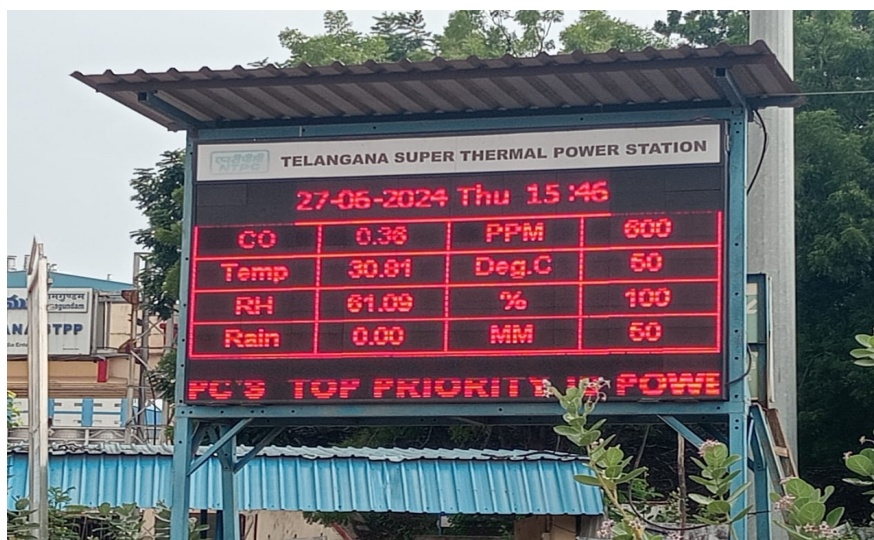
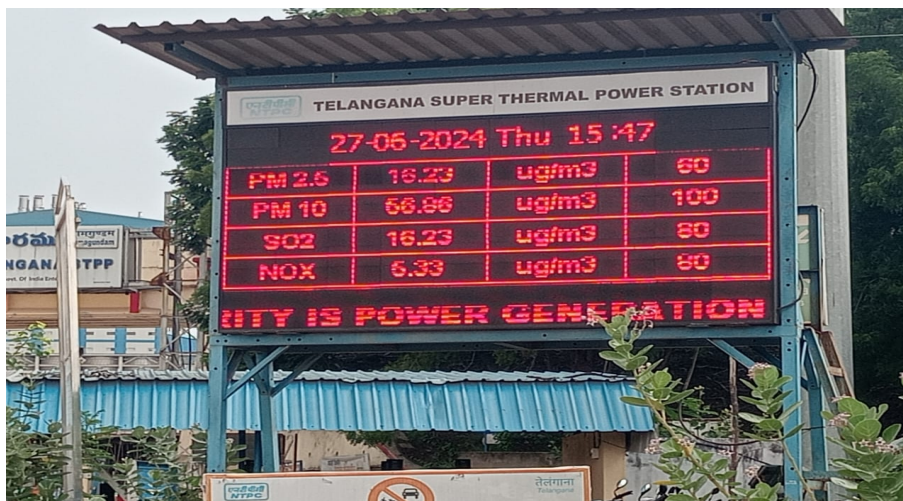
**CENT WORKS NOTICE IN**

The Executives Hyderabad Division No. Bhawan, Sub 500 095, President of tenders from contractors and above Category/ A contractor category and firms having satisfy the eligibility system of the NIT No. 15 18 Name Addressable alarm system Office building Estimated Earnest Money Period of 6 months, Last submission 03.02.2016.

\*All amendment extension, cl uploaded to will not newspaper regularly visit themselves



## LED Display board near main gate



## Details Of Works Taken Up Under CD Budget Of Telangana Project Ph#1(2\*800mw)

Sl. No.	CD Head & Activity	Approved Amt. (Lacs.)	Works tendered /awarded	Budget Utilized	Budget Left	Status
1	<b>Education</b>	80.00				
	1. Construction of Urdu medium school at PTS, Sayaha NGO		1622348.32	1510000.00	112348.32	Work Completed
	2. Distribution of School bags to students of govt schools		968490.00	968490.00	0.00	Work Completed
	3. Distribution of Exam pad, Geometry box to students of govt schools		167502.08	167502.08	0.00	Work Completed
	4. 3rd party Audit of 732 Nos Toilet constructed under SVA, Satavahana University, Karimnagar		725000.00	725000.00	0.00	Work Completed
	5. 3rd party Audit of 85 Nos. Toilet constructed under SVA, Satavahana University, Karimnagar		249000.00	249000.00	0.00	Work Completed
	Construction of 6 additional at Elkalapalli school		650000.00		650000.00	Yet to process
	6.Area development works around Life Skill Academy , Block-II, NTPC-Ramagundam nearby Sai Sava Samithi complex under Telangana CSR-CD works		2188453.49			under Finance Vetting.
	<b>Total (Rs.)</b>	<b>8000000.00</b>	<b>6570793.89</b>	<b>3619992.08</b>	<b>2950801.81</b>	
1	<b>Health</b>	719.00				
	Construction of 2nd Floor of Govt. Area Hospital, Godavarikhani		69000000.00	27600000.00	41400000.00	Completed. Equipments (1.14 Cr) awaited. Anticipated by

Sl. No.	CD Head & Activity	Approved Amt. (Lacs.)	Works tendered /awarded	Budget Utilized	Budget Left	Status
						30.12.22.
2	2nd Advance Payment released			10300000.00		
	Advance Payment released			7100000.00		
	<b>Total (Rs.)</b>	<b>71900000.00</b>	<b>69000000.00</b>	<b>45000000.00</b>	24000000.00	
3	<b>Sanitation</b>	157.00				
	Construction of Drains etc., at Anthergaon		15700000.00	15700000.00	0.00	Work Completed
	<b>Total (Rs.)</b>	<b>15700000.00</b>	<b>15700000.00</b>	<b>15700000.00</b>	0.00	
4	<b>Water</b>	0.00	0.00			
5	<b>Electrification</b>	50.00				
	1. Providing Solar Power street lights etc., (Kaleswaram)		3053792.31	3053792.31	0.00	Work Completed
	2. 35 KW Solar roof top plant at Sri Rama Sai Manava Seva Charitable Trust, Jammikunta		1691000.00	1691000.00	0.00	Work Completed
	<b>Total (Rs.)</b>	<b>5000000.00</b>	<b>4744792.31</b>	<b>4744792.31</b>	0.00	
6	<b>Infrastructure Roads</b>	939.00				
	1. Construction of CC/WBM Roads at Kothapally, Takkalapalli		5922000.00	4081000.00	1841000.00	Work compltd budt final deviation pending
	2. Construction of CC/WBM Roads at Jayyaram.		10518000.00	9622000.00	896000.00	Work compltd budt final deviation pending
	3. Construction of CC/WBM Roads at Anthergaon,Murmur.		4904000.00	3984000.00	920000.00	Work compltd budt final deviation pending

Sl. No.	CD Head & Activity	Approved Amt. (Lacs.)	Works tendered /awarded	Budget Utilized	Budget Left	Status
	4.Construction of CC/WBM Roads at Kannala		3275000.00	2675000.00	600000.00	Work compltd budt final deviation pending
	5.Construction of 1 Community Hall at Penchikalpet, 1RO Plant at Kannala, 2 Toilet Blocks at Schools Peddapalli &Palakurthy		5289000.00	4581000.00	708000.00	Work compltd budt final deviation pending
	6.Construction of CC/WBM Roads at Kundanpally		5891000.00	4166000.00	1725000.00	Work compltd budt final deviation pending
	7. Renovation of Police Commissionerate at Ramagundam		1000000.00	1000000.00	0.00	Work compltd budt final deviation pending
	8.Const. of WBM road along the outside boundary wall.		7558000.00	4905000.00	2653000.00	Work compltd budt final deviation pending
	9.Pkg-I Construction of Roads & Drains at CC Roads Vemnoor ,Rayadandi. WBM Potiala, Maddirala and Drains in Brahanpally (Palakurthy & Anthergaon) Mandals.		17456000.00	9447000.00	8009000.00	Work compltd budt final deviation pending
	10. Pkg-II Construction of Roads & Drains at CC Road at Jayyaram, Elkalapalli Drains Esalatakkalapalli and RRC Drains Palakurthy WBM Road at Elkalapalli (Guntur Palli) Palakurthy & Anthergaon mandals.		10658000.00	6410000.00	4248000.00	Work compltd budt final deviation pending

Sl. No.	CD Head & Activity	Approved Amt. (Lacs.)	Works tendered /awarded	Budget Utilized	Budget Left	Status
	11. Providing of Auto & Semi Auto Analyzers to PHCs		1360000.00	1360000.00	0.00	Completed
	12. Providing display boards under execution of CD budget		430000.00			Work yet to Start. Agency not responding.
	13. Construction of Skill Development Center		6706000.00	6706000.00	0.00	Completed
	Providing and laying CC Roads at Shalapally 5th division, Ramaguindam 4th and 5th division for the year 2018-19 under CSR-CD works		5869000.00		5869000.00	Work yet to Start
	In-principle approval for Cosnt. Of CC road along with pipe culvert parallel to proposed doubling of railway line between LC-1&LC-2		3200000.00		3200000.00	Road Length:- 500 Mtrs. Work start by 20.10.22. WBM by:- 25.10.22. Culvert by 07.11.22.
	Construction of 400 mtr road at Shalapally village				0.00	Estimate finalization and PR by 25.10.22.
	<b>Total (Rs.)</b>	<b>93900000.00</b>	<b>90036000.00</b>	<b>58937000.00</b>	<b>31099000.00</b>	
<b>6.1</b>	Financial Assistance of 2Cr to Ramagundam Police Commissionerate for const. of welfare cum community centre	200.00	20000000.00	20000000.00	0.00	Completed

Sl. No.	CD Head & Activity	Approved Amt. (Lacs.)	Works tendered /awarded	Budget Utilized	Budget Left	Status
	Additional Financial Assistance of 1.40Cr to TSPHCL for const. of welfare cum community centre	140.00	14000000.00	14000000.00	0.00	Completed
	<b>Total (Rs.)</b>	<b>34000000.00</b>	<b>34000000.00</b>	<b>34000000.00</b>	<b>0.00</b>	
7	<b>Vocational Trainings</b>	50.00				
	1)Physical Events and written test for Armed forces and Police force Training for local youth training.		1054250.00	1054250.00	0.00	Work Completed
	2)Communication & Soft skills		285000.00	285000.00	0.00	Work Completed
	3) Armed forces /Police forces training for local youth 2018-19( DOC 0602082180213)		1063000.00	1063000.00	0.00	Work Completed
	4) Coaching for competitive exams to students of SI/Constable, VRO, Group-II,III,IV & panchayat secretary of Ramagundam constituency ( Rs. 9 lacs + Rs. 1.75 lacs difference amount).		1075000.00	1075000.00	0.00	Work Completed
	5)Approval for Coaching for Final/main exam to TS police SI/constable of Ramagundam constituency (Deposited basis through RMC).		300000.00	300000.00	0.00	Work Completed
	<b>Total (Rs.)</b>	<b>5000000.00</b>	<b>3777250.00</b>	<b>3777250.00</b>	<b>0.00</b>	
8	<b>Support- Vulnerable Groups, Sp. Abled</b>	4.00				

Sl. No.	CD Head & Activity	Approved Amt. (Lacs.)	Works tendered /awarded	Budget Utilized	Budget Left	Status
	Augmentation of Govt. Support towards welfare of vulnerable persons, providing equipment's etc.,					Work Completed
8.1	Providing support under CSR-CD on the occasion of Dr.B.R.Ambedkar Vardanti – 2020		269500.00	269500.00	0.00	Work Completed
	<b>Total (Rs.)</b>	<b>400000.00</b>	<b>269500.00</b>	<b>269500.00</b>	<b>0.00</b>	
9	<b>Sports and culture</b>	5.00				
	1) Organisation Rural sports, Cultural activities etc.,		160000.00	160000.00	0.00	
	2) Financial Assistance to NTPC sports Council for Dist. Shuttle Badminton Tournament (PO 8200282046).		14770.00	14770.00	0.00	Work Completed
	<b>Total (Rs.)</b>	<b>500000.00</b>	<b>174770.00</b>	<b>174770.00</b>	<b>0.00</b>	
10	<b>Miscellaneous</b>	245.00				
	1.Providing amenities for official public bldg. of constituency MLA office-cum-residence at Ramagundam		810000.00	810000.00	0.00	Work Completed
	2. Social audit of Telangana project- NIT Warangal		258000.00	258000.00	0.00	Work Completed
	3. Const. Of BT Road connecting HKR -Anthargoan Godavari River near Ash dyke		11886554.00	11886554.00	0.00	Work Completed
	4. RO water plant and water cooler to GDK bus stand and Ramagundam railway station (PO 4600054680)		495000.00	495000.00	0.00	Work Completed

Sl. No.	CD Head & Activity	Approved Amt. (Lacs.)	Works tendered /awarded	Budget Utilized	Budget Left	Status
	5. Procurement of essential commodities in the backdrop of COVID-19 for distribution among migrant working community in and around NTPC-Ramagundam.		1557000.00	1557000.00	0.00	Work Completed
	6. Supply of Essential Food items in the backdrop of COVID-19 for distribution of daily wage earners under CSR		3927690.00	3927690.00	0.00	Work Completed
	7. construction of open drain wall from existing NTPC compound wall to existing slab culvert at Narashalapally village Division-5 on deposit work basis to RMC under CSR-CD		349000.00	349000.00	0.00	Work Completed
	Providing 2 nos display boards at Anthergoan		18000.00	18000.00	0.00	Work Completed
	<b>Total (Rs.)</b>	<b>24500000.00</b>	<b>19301244.00</b>	<b>19301244.00</b>	<b>0.00</b>	
	<b>Grand Total (Rs.)</b>	<b>25,89,00,000.00</b>	<b>24,35,74,350.20</b>	<b>18,55,24,548.39</b>	<b>58049801.81</b>	
	Total Budget	258900000				
	Works tendered/Awarded	249424350.2				
	Budget Utilized	185524549.4				
	Balance Amount (to be planned)	9475649.8				
	Works in progress	9499000				



## **ANNEXURE-I** **VISION DOCUMENT**

### **TELANGANA SUPER THERMAL POWER PROJECT, STAGE-I (2X800 MW)**

The vision of **Telangana STPP, Stage-I, originates** from the vision of the parent company, i.e. NTPC Limited,

***"To be the world's largest and best power producer,  
powering India's growth."***

In order to realize the above, the company has developed the following mission:

***"Develop and provide reliable power, related products and  
services at competitive prices, integrating multiple energy  
sources with innovative and eco-friendly technologies and  
contribute to society."***

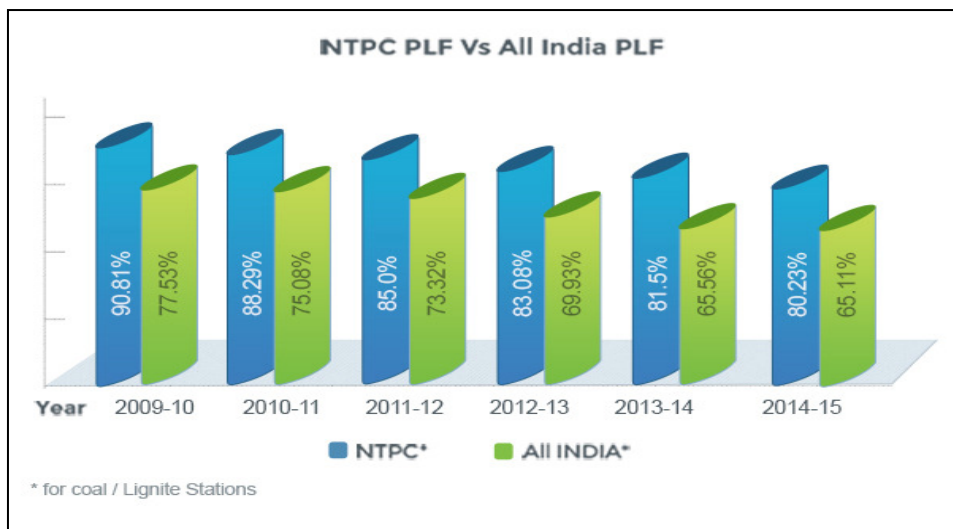
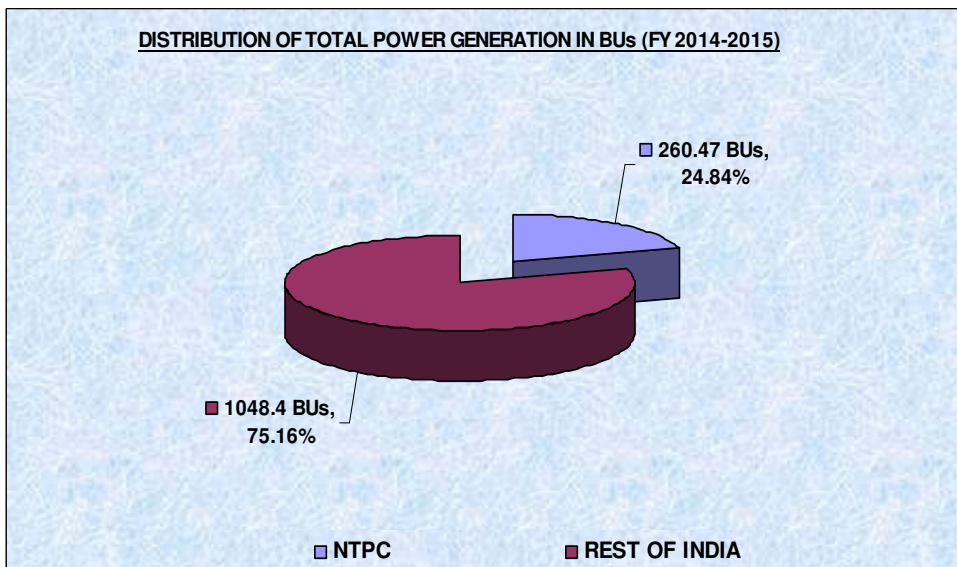
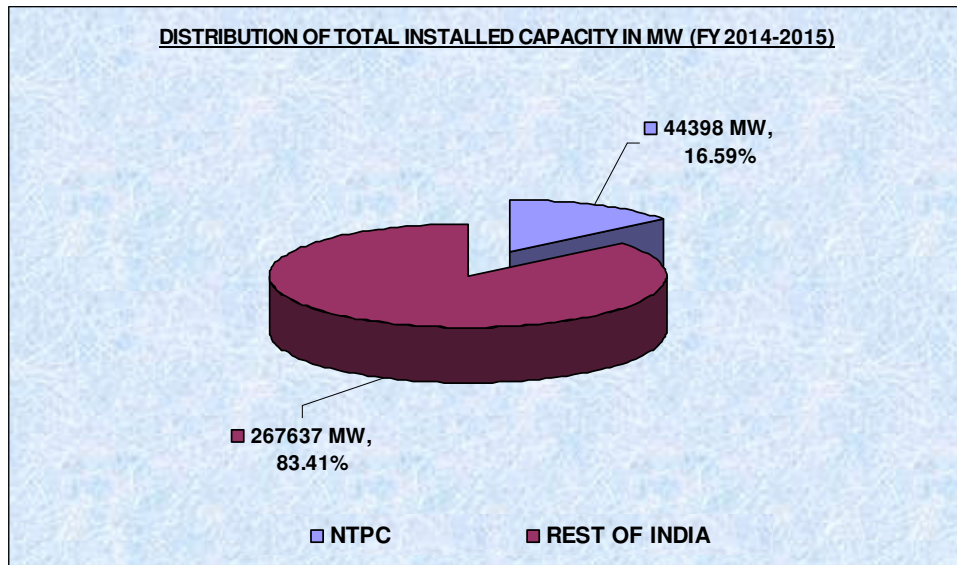
Established in 1975, NTPC Ltd. is India's largest power generation company today. NTPC is ranked 431<sup>st</sup> in the 2015, Forbes Global 2000' list of ranking for the World's biggest companies. NTPC became a Maharatna company in May, 2010, one of the only five companies awarded with this status.

The total installed capacity of the company is 46,653 MW (including JVs) with 18 coal based, 7 gas based, 8 joint ventures stations and 8 renewable energy projects, located across the country. The company has set a target to have an installed power generating capacity of 1, 28,000 MW by the year 2032, with a diversified fuel mix comprising 56% Coal, 16% Gas, 11% Nuclear, 9% Renewable Energy sources and 8% hydro based. By 2032, non-fossil fuel based generation capacity shall make up nearly 28% of NTPC's portfolio.

NTPC has been operating it's plants at high efficiency levels. Although the company has 17.73% of the total national capacity, it contributes 25.91% of total power generation due to its focus on high efficiency.

As per A.P. Re-organization Act 2014, NTPC has been mandated to set up 4000 MW Coal fired thermal power plant for Telangana State. NTPC informed Principal Secretary to Hon'ble Chief Minister, Govt. of Telangana vide letter dated 22.08.2014 confirming that NTPC is planning to set up 2 units of 800 MW under Stage-I within NTPC's existing Ramagundam Station.

## **ANNEXURE-I** **VISION DOCUMENT**



**ANNEXURE-I**  
**VISION DOCUMENT**

Telangana STPP, Stage-I (2x800 MW) is being planned as a base load coal based Super Thermal Power Plant near Ramagundam in Karimnagar district of Telangana. The project is being implemented as Mega power project for meeting the power demand of Telangana and is expected to start yielding benefits during early XIII<sup>th</sup> Plan Period.

Telangana STPP, Stage-I has been conceived as a base load coal fired power comprise of two (02) Nos. of coal fired supercritical technology based units of capacity 800 MW each. These are expected to be more efficient coal based super critical units, which shall also help reduce the CO<sub>2</sub> & SO<sub>2</sub> intensity of power generation. MOEF&CC has also accorded Environmental clearance for Telangana STPP, Stage-I (2x800 MW) vide its letter no. J-13012/112/2010-IA.II (T) dated 20.01.2016.

Apart from generating cheap, reliable, quality power, essential for the development of national economy, Telangana STPP, Stage-I is endeavoring growth of the region.

The vision statements of Telangana STPP, Stage-I, (2X800 MW) may be derived as:

<b>Sr. No.</b>	<b>NTPC's Vision Statement</b>	<b>Telangana STPP, Stage-I Vision Statement</b>
1.	Develop and provide reliable power, related products and services at competitive prices, integrating multiple energy sources	Sustainable power generation maintaining high standards of efficiency and financial strength, over the design life (25 years) and extended life of the project through suitable Renovation and Modernization Programmes from Time to Time.
2.	Implement innovative and eco-friendly technologies	Use of Super-critical technology for power generation, compliance with environmental norms and conservation of natural resources like land, water, fuel. Sustainable growth, Afforestation with local species in available spaces of the project.
3.	Contribute to society	Community Development & Corporate Social Responsibility

At NTPC, People before Plant Load Factor are the mantra that guides all policies. The same is reflected through the three parts of vision statements of NTPC (as a whole) as well as – Economy, Environment for Everyone. The concept of Corporate Social Responsibility is deeply ingrained in NTPC's culture. Through its expansive CSR initiatives, NTPC strives to develop mutual trust with the communities that surround its power stations.

Telangana STPP, Stage-I is committed to supply quality power keeping in view a cleaner and healthier environment around the project. The project will adopt the vision of conservation of pure drinking water sources, clean and calm surroundings, sustainable economic development and natural resource conservation. A continuous surveillance

**ANNEXURE-I**  
**VISION DOCUMENT**

programme on all important environmental parameters is being framed from the pre-feasibility stage with particular reference to the prevailing national standards.

In order to translate the visions of NTPC and Telangana STPP, Stage-I into reality, following specific Programmes are envisaged:

<b>Sr. No.</b>	<b>Telangana STPP, Stage-I Vision Statement</b>	<b>Telangana STPP, Stage-I Specific Programmes</b>
1.	Sustainable power generation maintaining high standards of efficiency and financial strength, over the design life (25 years) and extended life of the project through suitable Renovation and Modernization Programmes from Time to Time	<ol style="list-style-type: none"> <li>1. Timely commissioning of the project,</li> <li>2. Operation at high PLF,</li> <li>3. Continual improvement in efficiency and PLF through efficient operation and maintenance and Renovation and Modernization Programmes from Time to Time gaining extended life of the project,</li> <li>4. Certification of Project with ISO: 9001, OSHAS-18001, &amp; 5S.</li> </ol>
2.	Use of generation technology for power generation, compliance with environmental norms and conservation of natural resources like land, water, fuel	<ol style="list-style-type: none"> <li>1. Commissioning of all pollution control systems (for air pollution control, water pollution control and noise pollution control) along with the commissioning of plant,</li> <li>2. Implementation of Ash Utilization Plan.</li> <li>3. Compliance with Environmental Norms and Standards,</li> <li>4. Certification of Project with ISO: 14001,</li> <li>5. Surveillance of all important environmental parameters on a continuous basis and apply corrective measures,</li> <li>6. Afforestation in available spaces of the project as an effective mitigatory mechanism.</li> </ol>
3.	Community Development & Corporate Social Responsibility	<ol style="list-style-type: none"> <li>1. Implementation of Community Development Activities in surrounding areas i.e, <ul style="list-style-type: none"> <li>✓ Activities under Corporate Social Responsibility for Training, providing equipments, improving employability, education etc. with special focus on women empowerment, physically challenged &amp; economically weaker section of the Society.</li> <li>✓ Construction of ITI building, providing</li> </ul> </li> </ol>

**ANNEXURE-I**  
**VISION DOCUMENT**

		<p>machinery/ Aanganwadi building/ additional rooms/ renovation in Govt schools, playgrounds, scholarships, computers in Govt. schools, sports etc.</p> <ul style="list-style-type: none"> <li>✓ Construction/ renovation of internal roads, drains, Bus stops, etc.</li> <li>✓ Electrification through Solar street lights &amp; other solar equipments.</li> <li>✓ Provision of drinking water by construction of Water tanks, pipelines, bore wells, etc.</li> <li>✓ Provision of Health services through Medical camps, Up-gradation of medical facilities, mobile medical van, Veterinary, etc.</li> <li>✓ Assistance under '<b>Swachh Bharat Abhiyan</b>', etc for implementation of sanitation activity.</li> </ul> <p>2. Certification of Project with ISO-14001 &amp; OHSAS-18001.</p>
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### Test Report

Page No. 1/2

Sample Number : VELW/06

Name & Address of the Party : M/s NTPC Limited

Telangana Super Thermal Power Project, P.O. :  
Jyotinagar, District : Peddapalli, Telangana - 505215

Report No. : VELW/2311150006

Format No : 7.8 F 03

Party Reference No : 4000316836-037-1019

Reporting Date : 20/11/2023

Period of Analysis : 15/11/2023-20/11/2023

Receipt Date : 15/11/2023

Sampling Date : 08/11/2023

Sampling Quantity : 5.0 Ltrs + 250 ml

Sampling Type : Grab

Name of Sample

: Borewell Water

Sample Group

: Water/Residues and contaminants in Water

Location

: Elakalapally Village

Sample Collected by

: VEL Representative (Mr. Rajesh)

Environmental Condition

: 25±2°C

Sampling and Analysis

: APHA & IS

Protocol

S.No.	Test Parameter	Test Method	Results	Units	Requirement as per IS:10500-2012	
					Acceptable Limit	Permissible Limits
Discipline : Chemical						
1	pH (at 25 °C)	IS:3025 (Part-11)	7.62	--	6.5-8.5	No Relaxation
2	Electrical conductivity	IS:3025 (Part-14)	716.00	µS/cm	--	--
3	Residual Free Chlorine (RFC),Min	IS:3025 (Part-26)	BLQ(LOQ-0.1 5)	mg/L	0.2	1
4	Total Dissolved Solids (at 180°C),Max	IS:3025 (Part-16)	440.00	mg/L	500	2000
5	Iron (as Fe),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	0.12	mg/L	1.0	No Relaxation
6	Zinc (as Zn),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	0.09	mg/L	5	15
7	Total Chromium (as Cr),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.0 02)	mg/L	0.05	No Relaxation
8	Copper (as Cu),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.0 02)	mg/L	0.05	1.5
9	Cadmium (as Cd),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.0 02)	mg/L	0.003	No Relaxation
10	Total Suspended Solids	IS 3025 P-17	BLQ(LOQ-1.0)	mg/L	--	--
11	Lead (as Pb),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.0 02)	mg/L	0.01	No Relaxation
12	Total Arsenic (as As),Max	VEL/STP/ICP/W-01, Issue No. -01,	BLQ(LOQ-0.0	mg/L	0.01	No Relaxation



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## Test Report

Page No. 2/2

Sample Number : VELW/06

Report No. : VELW/2311150006

S.No.	Test Parameter	Test Method	Results	Units	Requirement as per IS:10500-2012	
					Acceptable Limit	Permissible Limits
12		Issue date 01/11/2021	05)			
13	Mercury (as Hg),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.0005)	mg/L	0.001	No Relaxation
14	Biochemical Oxygen Demand	IS:3025 (P-44)	BLQ(LOQ-2.0)	mg/L	--	--
15	Chemical Oxygen Demand	APHA 5220 B Open Reflux Method	BLQ(LOQ-4.0)	mg/L	--	--
16	Oil and Grease	IS:3025 (P-39)	BLQ(LOQ-0.4)	mg/L	--	--
17	Total Nitrogen	IS 3025 (P-34) Kjeldhal Method, R:2009	BLQ(LOQ-1.0)	mg/L	--	--
18	Phosphorus as P	IS 3025 (P-31)	BLQ(LOQ-0.2)	mg/L	--	--

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification.

\*\*\*End of Report\*\*\*



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## Test Report

Page No. 1/2

Sample Number : VEL/W/07

Name & Address of the Party : M/s NTPC Limited

Telangana Super Thermal Power Project, P.O. :  
Jyotinagar, District : Peddapalli, Telangana - 505215

Report No. : VELW/2311150007

Format No : 7.8 F 03

Party Reference No : 4000316836-037-1019

Reporting Date : 20/11/2023

Period of Analysis : 15/11/2023-20/11/2023

Receipt Date : 15/11/2023

Sampling Date : 08/11/2023

Sampling Quantity : 5.0 Ltrs + 250 ml

Sampling Type : Grab

Name of Sample

: Borewell Water

Sample Group

: Water/Residues and contaminants in Water

Location

: Shanthinagar

Sample Collected by

: VEL Representative (Mr. Rajesh)

Environmental Condition

: 25±2°C

Sampling and Analysis  
Protocol

: APHA & IS

S.No.	Test Parameter	Test Method	Results	Units	Requirement as per IS:10500-2012	
					Acceptable Limit	Permissible Limits
Discipline : Chemical						
1	pH (at 25 °C)	IS:3025 (Part-11)	7.58	--	6.5-8.5	No Relaxation
2	Electrical conductivity	IS:3025 (Part-14)	668.00	µS/cm	--	--
3	Residual Free Chlorine (RFC),Min	IS:3025 (Part-26)	BLQ(LOQ-0.1 5)	mg/L	0.2	1
4	Total Dissolved Solids (at 180°C),Max	IS:3025 (Part-16)	410.00	mg/L	500	2000
5	Iron (as Fe),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	0.12	mg/L	1.0	No Relaxation
6	Zinc (as Zn),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	0.15	mg/L	5	15
7	Total Chromium (as Cr),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.0 02)	mg/L	0.05	No Relaxation
8	Copper (as Cu),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.0 02)	mg/L	0.05	1.5
9	Cadmium (as Cd),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.0 02)	mg/L	0.003	No Relaxation
10	Total Suspended Solids	IS 3025 P-17	1.20	mg/L	--	--
11	Lead (as Pb),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.0 02)	mg/L	0.01	No Relaxation
12	Total Arsenic (as As),Max	VEL/STP/ICP/W-01, Issue No. -01,	BLQ(LOQ-0.0	mg/L	0.01	No Relaxation



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## Test Report

Page No. 2/2

Sample Number : VEL/W/07

Report No. : VEL/W/2311150007

S.No.	Test Parameter	Test Method	Results	Units	Requirement as per IS:10500-2012	
					Acceptable Limit	Permissible Limits
12		Issue date 01/11/2021	05)			
13	Mercury (as Hg),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.0005)	mg/L	0.001	No Relaxation
14	Biochemical Oxygen Demand	IS:3025 (P-44)	BLQ(LOQ-2.0)	mg/L	--	--
15	Chemical Oxygen Demand	APHA 5220 B Open Reflux Method	BLQ(LOQ-4.0)	mg/L	--	--
16	Oil and Grease	IS:3025 (P-39)	BLQ(LOQ-0.4)	mg/L	--	--
17	Total Nitrogen	IS 3025 (P-34) Kjeldhal Method, R:2009	BLQ(LOQ-1.0)	mg/L	--	--
18	Phosphorus as P	IS 3025 (P-31)	BLQ(LOQ-0.2)	mg/L	--	--

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification.

\*\*\*End of Report\*\*\*



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## Test Report

Page No. 1/2

Sample Number : VELW/08

Name & Address of the Party : M/s NTPC Limited  
Telangana Super Thermal Power Project, P.O. :  
Jyotinagar, District : Peddapalli, Telangana - 505215

Report No. : VELW/2311150008

Format No : 7.8 F 03

Party Reference No : 4000316836-037-1019

Reporting Date : 20/11/2023

Period of Analysis : 15/11/2023-20/11/2023

Receipt Date : 15/11/2023

Sampling Date : 08/11/2023

Sampling Quantity : 5.0 Ltrs + 250 ml

Sampling Type : Grab

Name of Sample : Borewell Water  
Sample Group : Water/Residues and contaminants in Water  
Location : FCI PTS Back Side Gate  
Sample Collected by : VEL Representative (Mr. Rajesh)  
Environmental Condition : 25±2°C  
Sampling and Analysis Protocol : APHA & IS

S.No.	Test Parameter	Test Method	Results	Units	Requirement as per IS:10500-2012	
					Acceptable Limit	Permissible Limits
Discipline : Chemical						
1	pH (at 25 °C)	IS:3025 (Part-11)	7.63	--	6.5-8.5	No Relaxation
2	Electrical conductivity	IS:3025 (Part-14)	688.00	µS/cm	--	--
3	Residual Free Chlorine (RFC),Min	IS:3025 (Part-26)	BLQ(LOQ-0.15)	mg/L	0.2	1
4	Total Dissolved Solids (at 180°C),Max	IS:3025 (Part-16)	426.00	mg/L	500	2000
5	Iron (as Fe),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	0.13	mg/L	1.0	No Relaxation
6	Zinc (as Zn),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	0.17	mg/L	5	15
7	Total Chromium (as Cr),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.002)	mg/L	0.05	No Relaxation
8	Copper (as Cu),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.002)	mg/L	0.05	1.5
9	Cadmium (as Cd),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.002)	mg/L	0.003	No Relaxation
10	Total Suspended Solids	IS 3025 P-17	1.10	mg/L	--	--
11	Lead (as Pb),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.002)	mg/L	0.01	No Relaxation
12	Total Arsenic (as As),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.002)	mg/L	0.01	No Relaxation



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## Test Report

Page No. 2/2

Sample Number : VEL/W/08

Report No. : VELW/2311150008

S.No.	Test Parameter	Test Method	Results	Units	Requirement as per IS:10500-2012	
					Acceptable Limit	Permissible Limits
12		Issue date 01/11/2021	05)			
13	Mercury (as Hg),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.005)	mg/L	0.001	No Relaxation
14	Biochemical Oxygen Demand	IS:3025 (P-44)	BLQ(LOQ-2.0)	mg/L	--	--
15	Chemical Oxygen Demand	APHA 5220 B Open Reflux Method	BLQ(LOQ-4.0)	mg/L	--	--
16	Oil and Grease	IS:3025 (P-39)	BLQ(LOQ-0.4)	mg/L	--	--
17	Total Nitrogen	IS 3025 (P-34) Kjeldhal Method, R:2009	BLQ(LOQ-1.0)	mg/L	--	--
18	Phosphorus as P	IS 3025 (P-31)	BLQ(LOQ-0.2)	mg/L	--	--

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification.

\*\*\*End of Report\*\*\*



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## Test Report

Page No. 1/2

Sample Number : VELW/09

Name & Address of the Party : M/s NTPC Limited

Telangana Super Thermal Power Project, P.O. :  
Jyotinagar, District : Peddapalli, Telangana - 505215

Report No. : VELW/2311150009

Format No : 7.8 F 03

Party Reference No : 4000316836-037-1019

Reporting Date : 20/11/2023

Period of Analysis : 15/11/2023-20/11/2023

Receipt Date : 15/11/2023

Sampling Date : 08/11/2023

Sampling Quantity : 5.0 Ltrs + 250 ml

Sampling Type : Grab

Name of Sample : Borewell Water  
Sample Group : Water/Residues and contaminants in Water  
Location : Ranapur Village  
Sample Collected by : VEL Representative (Mr. Rajesh)  
Environmental Condition : 25±2°C  
Sampling and Analysis Protocol : APHA & IS

S.No.	Test Parameter	Test Method	Results	Units	Requirement as per IS:10500-2012	
					Acceptable Limit	Permissible Limits
Discipline : Chemical						
1	pH (at 25 °C)	IS:3025 (Part-11)	7.80	--	6.5-8.5	No Relaxation
2	Electrical conductivity	IS:3025 (Part-14)	712.00	µS/cm	--	--
3	Residual Free Chlorine (RFC),Min	IS:3025 (Part-26)	BLQ(LOQ-0.15)	mg/L	0.2	1
4	Total Dissolved Solids (at 180°C),Max	IS:3025 (Part-16)	432.00	mg/L	500	2000
5	Iron (as Fe),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	0.22	mg/L	1.0	No Relaxation
6	Zinc (as Zn),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	0.19	mg/L	5	15
7	Total Chromium (as Cr),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.002)	mg/L	0.05	No Relaxation
8	Copper (as Cu),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.002)	mg/L	0.05	1.5
9	Cadmium (as Cd),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.002)	mg/L	0.003	No Relaxation
10	Total Suspended Solids	IS 3025 P-17	BLQ(LOQ-1.0)	mg/L	--	--
11	Lead (as Pb),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.002)	mg/L	0.01	No Relaxation
12	Total Arsenic (as As),Max	VEL/STP/ICP/W-01, Issue No. -01,	BLQ(LOQ-0.0	mg/L	0.01	No Relaxation



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## Test Report

Sample Number : VELW/09

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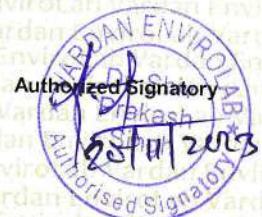
Report No.

: VELW/2311150009

S.No.	Test Parameter	Test Method	Results	Units	Requirement as per IS:10500-2012	
					Acceptable Limit	Permissible Limits
12		Issue date 01/11/2021	05)			
13	Mercury (as Hg),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.0005)	mg/L	0.001	No Relaxation
14	Biochemical Oxygen Demand	IS:3025 (P-44)	BLQ(LOQ-2.0)	mg/L	--	--
15	Chemical Oxygen Demand	APHA 5220 B Open Reflux Method	BLQ(LOQ-4.0)	mg/L	--	--
16	Oil and Grease	IS:3025 (P-39)	BLQ(LOQ-0.4)	mg/L	--	--
17	Total Nitrogen	IS 3025 (P-34) Kjeldhal Method, R:2009	BLQ(LOQ-1.0)	mg/L	--	--
18	Phosphorus as P	IS 3025 (P-31)	BLQ(LOQ-0.2)	mg/L	--	--

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification.

\*\*\*End of Report\*\*\*



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## Test Report

Sample Number: VEL/W/06  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana - 505215

Report No.: VEL/W/2312210013  
Format No.: 7.8 F-03  
Party Reference No.: 4000316836-037-1019  
Dated: 30/09/2023

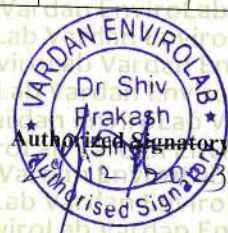
Name of Sample: Borewell Water Sample  
Sample Group: Water/Residues and contaminants in Water  
Location: Elakalapally Village  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Environmental Condition: 25±2°C  
Sampling and Analysis Protocol: IS: 3025, APHA 23rd Edition 2017 & STP

Reporting Date: 29/12/2023  
Period of Analysis: 21/12/2023 - 29/12/2023  
Receipt Date: 21/12/2023  
Sampling Date: 16/12/2023  
Sampling Quantity: 5.0 Ltrs. + 250 ml  
Sampling Type: Grab  
Preservation: Ice Box  
Parameter Required: As Per Work Order

S. No.	Test Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
Discipline : Chemical						
1.	pH (at 25°C)	IS: 3025 (P-11)	7.68	--	6.5 to 8.5	No Relaxation
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	467.00	mg/L	500	2000
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	753.22	uS/cm	--	--
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L	0.2	1
5.	Total Nitrogen	IS: 3025 (P-34)	*BLQ(**LOQ-1.0)	mg/L	--	--
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	*BLQ(**LOQ-0.2)	mg/L	--	--
7.	Total Suspended Solids	IS: 3025 (P-17)	*BLQ(**LOQ-1.0)	mg/L	--	--
8.	Oil & Grease	IS: 3025 (P-39)	*BLQ(**LOQ-0.4)	mg/L	--	--
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	*BLQ(**LOQ-2.0)	mg/L	--	--
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	*BLQ(**LOQ-4.0)	mg/L	--	--



Page No. 1 of 2



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## Test Report

Sample Number: VEL/W/06				Report No.: VEL/W/2312210013 <sup>1</sup>		
S. No.	Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.14	mg/L	1.0	No Relaxation
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.12	mg/L	5.0	15.0
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	No Relaxation
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	1.5
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.003	No Relaxation
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.01	No Relaxation
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L	0.001	No Relaxation
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L	0.01	No Relaxation

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

\*\*\*End of Report\*\*\*



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## Test Report

Sample Number: VEL/W/07  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

Report No.: VEL/W/2312210014  
Format No.: 7.8 F-03  
Party Reference No.: 4000316836-037-1019  
Dated: 30/09/2023

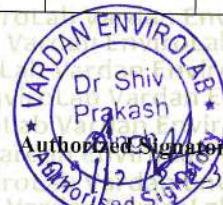
Name of Sample: Borewell Water Sample  
Sample Group: Water/Residues and contaminants in Water  
Location: Shanthinagar  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Environmental Condition: 25±2°C  
Sampling and Analysis Protocol: IS: 3025, APHA 23rd Edition 2017 & STP

Reporting Date: 29/12/2023  
Period of Analysis: 21/12/2023 - 29/12/2023  
Receipt Date: 21/12/2023  
Sampling Date: 16/12/2023  
Sampling Quantity: 5.0 Ltrs. + 250 ml  
Sampling Type: Grab  
Preservation: Ice Box  
Parameter Required: As Per Work Order

S. No.	Test Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
Discipline : Chemical						
1.	pH (at 25°C)	IS: 3025 (P-11)	7.60	--	6.5 to 8.5	No Relaxation
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	443.00	mg/L	500	2000
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	714.51	uS/cm	--	--
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L	0.2	1
5.	Total Nitrogen	IS: 3025 (P-34)	*BLQ(**LOQ-1.0)	mg/L	--	--
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	*BLQ(**LOQ-0.2)	mg/L	--	--
7.	Total Suspended Solids	IS: 3025 (P-17)	*BLQ(**LOQ-1.0)	mg/L	--	--
8.	Oil & Grease	IS: 3025 (P-39)	*BLQ(**LOQ-0.4)	mg/L	--	--
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	*BLQ(**LOQ-2.0)	mg/L	--	--
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	*BLQ(**LOQ-4.0)	mg/L	--	--



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## Test Report

Sample Number: VEL/W/07				Report No.: VEL/W/2312210014 <sup>1</sup>		
S. No.	Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.15	mg/L	1.0	No Relaxation
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.19	mg/L	5.0	15.0
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	No Relaxation
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	1.5
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.003	No Relaxation
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.01	No Relaxation
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L	0.001	No Relaxation
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L	0.01	No Relaxation

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

\*\*\*End of Report\*\*\*

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## Test Report

Sample Number: VEL/W/08				Report No.: VEL/W/2312210015*		
S. No.	Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.16	mg/L	1.0	No Relaxation
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.19	mg/L	5.0	15.0
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	No Relaxation
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	1.5
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.003	No Relaxation
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.01	No Relaxation
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L	0.001	No Relaxation
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L	0.01	No Relaxation

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

\*\*\*End of Report\*\*\*



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## Test Report

Sample Number: VEL/W/08  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

Report No.: VEL/W/2312210015  
Format No.: 7.8 F-03  
Party Reference No.: 4000316836-037-1019  
Dated: 30/09/2023

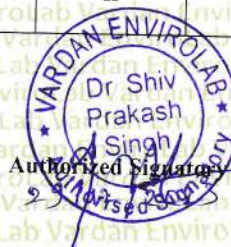
Name of Sample: Borewell Water Sample  
Sample Group: Water/Residues and contaminants in Water  
Location: FCI PTS Back Side Gate  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Environmental Condition: 25±2°C  
Sampling and Analysis Protocol: IS: 3025, APHA 23rd Edition 2017 & STP

Reporting Date: 29/12/2023  
Period of Analysis: 21/12/2023 - 29/12/2023  
Receipt Date: 21/12/2023  
Sampling Date: 16/12/2023  
Sampling Quantity: 5.0 Ltrs. + 250 ml  
Sampling Type: Grab  
Preservation: Ice Box  
Parameter Required: As Per Work Order

S. No.	Test Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
Discipline : Chemical						
1.	pH (at 25°C)	IS: 3025 (P-11)	7.71	--	6.5 to 8.5	No Relaxation
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	437.00	mg/L	500	2000
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	704.83	uS/cm	--	--
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L	0.2	1
5.	Total Nitrogen	IS: 3025 (P-34)	*BLQ(**LOQ-1.0)	mg/L	--	--
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	*BLQ(**LOQ-0.2)	mg/L	--	--
7.	Total Suspended Solids	IS: 3025 (P-17)	1.14	mg/L	--	--
8.	Oil & Grease	IS: 3025 (P-39)	*BLQ(**LOQ-0.4)	mg/L	--	--
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	*BLQ(**LOQ-2.0)	mg/L	--	--
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	*BLQ(**LOQ-4.0)	mg/L	--	--



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## Test Report

Sample Number: VEL/W/09  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

Report No.: VEL/W/2312210016  
Format No.: 7.8 F-03  
Party Reference No.: 4000316836-037-1019  
Dated: 30/09/2023

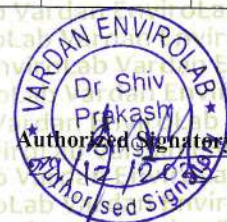
Name of Sample: Borewell Water Sample  
Sample Group: Water/Residues and contaminants in Water  
Location: Ranapur Village  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Environmental Condition: 25±2°C  
Sampling and Analysis Protocol: IS: 3025, APHA 23rd Edition 2017 & STP

Reporting Date: 29/12/2023  
Period of Analysis: 21/12/2023 - 29/12/2023  
Receipt Date: 21/12/2023  
Sampling Date: 16/12/2023  
Sampling Quantity: 5.0 Ltrs. + 250 ml  
Sampling Type: Grab  
Preservation: Ice Box  
Parameter Required: As Per Work Order

S. No.	Test Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
Discipline : Chemical						
1.	pH (at 25°C)	IS: 3025 (P-11)	7.90	--	6.5 to 8.5	No Relaxation
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	440.38	mg/L	500	2000
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	710.29	uS/cm	--	--
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L	0.2	1
5.	Total Nitrogen	IS: 3025 (P-34)	*BLQ(**LOQ-1.0)	mg/L	--	--
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	*BLQ(**LOQ-0.2)	mg/L	--	--
7.	Total Suspended Solids	IS: 3025 (P-17)	1.09	mg/L	--	--
8.	Oil & Grease	IS: 3025 (P-39)	*BLQ(**LOQ-0.4)	mg/L	--	--
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	*BLQ(**LOQ-2.0)	mg/L	--	--
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	*BLQ(**LOQ-4.0)	mg/L	--	--



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## Test Report

Sample Number: VEL/W/09				Report No.: VEL/W/2312210016		
S. No.	Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.26	mg/L	1.0	No Relaxation
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.32	mg/L	5.0	15.0
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	No Relaxation
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	1.5
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.003	No Relaxation
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.01	No Relaxation
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L	0.001	No Relaxation
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L	0.01	No Relaxation

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

\*\*\*End of Report\*\*\*



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# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Hr)  
ISO 9001 | ISO 14001 | ISO 45001



## Test Report

**Sample Number:** VEL/W/06  
**Name & Address of the Party:** M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

**Report No.:** VEL/W/2402030006  
**Format No.:** 7.8 F-03  
**Party Reference No.:** 4000316836-037-1019  
**Dated:** 30/09/2023

**Name of Sample:** Borewell Water Sample  
**Sample Group:** Water/Residues and contaminants in Water  
**Location:** Elakalapally Village  
**Sample Collected By:** VEL Representative  
**Environmental Condition:** 25±2°C  
**Sampling and Analysis Protocol:** IS: 3025, APHA 23<sup>rd</sup> Edition 2017 & STP

**Reporting Date:** 06/02/2024  
**Period of Analysis:** 03/02/2024 – 06/02/2024  
**Receipt Date:** 03/02/2024  
**Sampling Date:** 12/01/2024  
**Sampling Quantity:** 5.0 Ltrs. + 250 ml  
**Sampling Type:** Grab  
**Preservation:** Ice Box  
**Parameter Required:** As Per Work Order

S. No.	Test Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
Discipline : Chemical						
1.	pH (at 25°C)	IS: 3025 (P-11)	7.19	--	6.5 to 8.5	No Relaxation
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	466.00	mg/L	500	2000
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	751.61	uS/cm	--	--
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L	0.2	1
5.	Total Nitrogen	IS: 3025 (P-34)	*BLQ(**LOQ-1.0)	mg/L	--	--
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	*BLQ(**LOQ-0.2)	mg/L	--	--
7.	Total Suspended Solids	IS: 3025 (P-17)	1.41	mg/L	--	--
8.	Oil & Grease	IS: 3025 (P-39)	*BLQ(**LOQ-0.4)	mg/L	--	--
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	*BLQ(**LOQ-2.0)	mg/L	--	--
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	*BLQ(**LOQ-4.0)	mg/L	--	--



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# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Hr)  
ISO 9001 | ISO 14001 | ISO 45001



## Test Report

Sample Number: VEL/W/06				Report No.: VEL/W/2402030006		
S. No.	Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.41	mg/L	1.0	No Relaxation
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.37	mg/L	5.0	15.0
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	No Relaxation
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	1.5
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.003	No Relaxation
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.01	No Relaxation
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L	0.001	No Relaxation
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L	0.01	No Relaxation

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

\*\*\*End of Report\*\*\*



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VEL/E-0311/19/P060700





# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Hr)  
ISO 9001 | ISO 14001 | ISO 45001



## Test Report

Sample Number: VEL/W/07  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

Report No.: VEL/W/2402030007  
Format No.: 7.8 F-03  
Party Reference No.: 4000316836-037-1019  
Dated: 30/09/2023

Name of Sample: Borewell Water Sample  
Sample Group: Water/Residues and contaminants in Water  
Location: Shanthinagar  
Sample Collected By: VEL Representative  
Environmental Condition: 25±2°C  
Sampling and Analysis Protocol: IS: 3025, APHA 23<sup>rd</sup> Edition 2017 & STP

Reporting Date: 06/02/2024  
Period of Analysis: 03/02/2024 - 06/02/2024  
Receipt Date: 03/02/2024  
Sampling Date: 12/01/2024  
Sampling Quantity: 5.0 Ltrs. + 250 ml  
Sampling Type: Grab  
Preservation: Ice Box  
Parameter Required: As Per Work Order

S. No.	Test Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
Discipline : Chemical						
1.	pH (at 25°C)	IS: 3025 (P-11)	7.12	--	6.5 to 8.5	No Relaxation
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	451.33	mg/L	500	2000
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	727.95	uS/cm	--	--
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L	0.2	1
5.	Total Nitrogen	IS: 3025 (P-34)	*BLQ(**LOQ-1.0)	mg/L	--	--
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	*BLQ(**LOQ-0.2)	mg/L	--	--
7.	Total Suspended Solids	IS: 3025 (P-17)	1.19	mg/L	--	--
8.	Oil & Grease	IS: 3025 (P-39)	*BLQ(**LOQ-0.4)	mg/L	--	--
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	*BLQ(**LOQ-2.0)	mg/L	--	--
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	*BLQ(**LOQ-4.0)	mg/L	--	--



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# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Hr)  
ISO 9001 | ISO 14001 | ISO 45001



## Test Report

Sample Number: VEL/W/07			Report No.: VEL/W/2402030007			
S. No.	Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.46	mg/L	1.0	No Relaxation
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.34	mg/L	5.0	15.0
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	No Relaxation
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	1.5
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.003	No Relaxation
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.01	No Relaxation
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L	0.001	No Relaxation
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L	0.01	No Relaxation

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

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# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Hr)  
ISO 9001 | ISO 14001 | ISO 45001



## Test Report

**Sample Number:** VEL/W/08  
**Name & Address of the Party:** M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana - 505215

**Report No.:** VEL/W/2402030008  
**Format No.:** 7.8 F-03  
**Party Reference No.:** 4000316836-037-1019  
**Dated:** 30/09/2023

**Name of Sample:** Borewell Water Sample  
**Sample Group:** Water/Residues and contaminants in Water  
**Location:** FCI PTS Back Side Gate  
**Sample Collected By:** VEL Representative  
**Environmental Condition:** 25±2°C  
**Sampling and Analysis Protocol:** IS: 3025, APHA 23<sup>rd</sup> Edition 2017 & STP

**Reporting Date:** 06/02/2024  
**Period of Analysis:** 03/02/2024 - 06/02/2024  
**Receipt Date:** 03/02/2024  
**Sampling Date:** 12/01/2024  
**Sampling Quantity:** 5.0 Ltrs. + 250 ml  
**Sampling Type:** Grab  
**Preservation:** Ice Box  
**Parameter Required:** As Per Work Order

S. No.	Test Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
Discipline : Chemical						
1.	pH (at 25°C)	IS: 3025 (P-11)	7.21	--	6.5 to 8.5	No Relaxation
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	441.55	mg/L	500	2000
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	712.17	uS/cm	--	--
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L	0.2	1
5.	Total Nitrogen	IS: 3025 (P-34)	*BLQ(**LOQ-1.0)	mg/L	--	--
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	*BLQ(**LOQ-0.2)	mg/L	--	--
7.	Total Suspended Solids	IS: 3025 (P-17)	1.41	mg/L	--	--
8.	Oil & Grease	IS: 3025 (P-39)	*BLQ(**LOQ-0.4)	mg/L	--	--
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	*BLQ(**LOQ-2.0)	mg/L	--	--
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	*BLQ(**LOQ-4.0)	mg/L	--	--



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# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Hr)  
ISO 9001 | ISO 14001 | ISO 45001



## Test Report

Sample Number: VEL/W/08			Report No.: VEL/W/2402030008			
S. No.	Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.37	mg/L	1.0	No Relaxation
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.24	mg/L	5.0	15.0
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	No Relaxation
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	1.5
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.003	No Relaxation
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.01	No Relaxation
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L	0.001	No Relaxation
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L	0.01	No Relaxation

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

\*\*\*End of Report\*\*\*



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# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Hr)  
ISO 9001 | ISO 14001 | ISO 45001



## Test Report

**Sample Number:** VEL/W/09  
**Name & Address of the Party:** M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

**Report No.:** VEL/W/2402030009  
**Format No.:** 7.8 F-03  
**Party Reference No.:** 4000316836-037-1019  
**Dated:** 30/09/2023

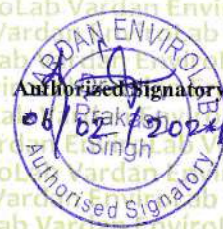
**Name of Sample:** Borewell Water Sample  
**Sample Group:** Water/Residues and contaminants in Water  
**Location:** Ranapur Village  
**Sample Collected By:** VEL Representative  
**Environmental Condition:** 25±2°C  
**Sampling and Analysis Protocol:** IS: 3025, APHA 23<sup>rd</sup> Edition 2017 & STP

**Reporting Date:** 06/02/2024  
**Period of Analysis:** 03/02/2024 - 06/02/2024  
**Receipt Date:** 03/02/2024  
**Sampling Date:** 12/01/2024  
**Sampling Quantity:** 5.0 Ltrs. + 250 ml  
**Sampling Type:** Grab  
**Preservation:** Ice Box  
**Parameter Required:** As Per Work Order

S. No.	Test Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
Discipline : Chemical						
1.	pH (at 25°C)	IS: 3025 (P-11)	7.29	--	6.5 to 8.5	No Relaxation
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	454.41	mg/L	500	2000
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	732.91	uS/cm	--	--
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L	0.2	1
5.	Total Nitrogen	IS: 3025 (P-34)	*BLQ(**LOQ-1.0)	mg/L	--	--
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	*BLQ(**LOQ-0.2)	mg/L	--	--
7.	Total Suspended Solids	IS: 3025 (P-17)	1.71	mg/L	--	--
8.	Oil & Grease	IS: 3025 (P-39)	*BLQ(**LOQ-0.4)	mg/L	--	--
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	*BLQ(**LOQ-2.0)	mg/L	--	--
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	*BLQ(**LOQ-4.0)	mg/L	--	--



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VEL/E-03/1/17/PH80788





# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Hr)  
ISO 9001 | ISO 14001 | ISO 45001



## Test Report

Sample Number: VEL/W/09			Report No.: VEL/W/2402030009			
S. No.	Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.71	mg/L	1.0	No Relaxation
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.45	mg/L	5.0	15.0
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	No Relaxation
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	1.5
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.003	No Relaxation
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.01	No Relaxation
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L	0.001	No Relaxation
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L	0.01	No Relaxation

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

\*\*\*End of Report\*\*\*



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VEL/E-03/1/19/14025750





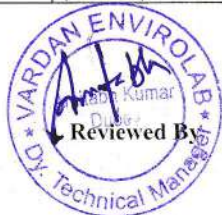
## Test Report

Sample Number: VEL/W/06  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

Report No.: VEL/W/2402190006  
Format No.: 7.8 F-03  
Party Reference No.: 4000316836-037-1019  
Dated: 30/09/2023  
Reporting Date: 23/02/2024  
Period of Analysis: 19/02/2024 - 23/01/2024  
Receipt Date: 19/02/2024  
Sampling Date: 15/02/2024  
Sampling Quantity: 2.0 Ltrs.  
Sampling Type: Grab  
Preservation: Ice Box  
Parameter Required: As Per Work Order

Name of Sample: Borewell Water Sample  
Sample Group: Water/Residues and contaminants in Water  
Location: Elakalapally Village  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Environmental Condition: 25±2°C  
Sampling and Analysis Protocol: IS: 3025, APHA 23rd Edition 2017 & STP

S. No.	Test Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
Discipline : Chemical						
1.	pH (at 25°C)	IS: 3025 (P-11)	7.48	--	6.5 to 8.5	No Relaxation
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	468.20	mg/L	500	2000
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	759.31	uS/cm	--	--
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L	0.2	1
5.	Total Nitrogen	IS: 3025 (P-34)	*BLQ(**LOQ-1.0)	mg/L	--	--
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	*BLQ(**LOQ-0.2)	mg/L	--	--
7.	Total Suspended Solids	IS: 3025 (P-17)	1.73	mg/L	--	--
8.	Oil & Grease	IS: 3025 (P-39)	*BLQ(**LOQ-0.4)	mg/L	--	--
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	*BLQ(**LOQ-2.0)	mg/L	--	--
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	*BLQ(**LOQ-4.0)	mg/L	--	--



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## Test Report

Sample Number: VEL/W/06			Report No.: VEL/W/2402190006			
S. No.	Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.28	mg/L	1.0	No Relaxation
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.24	mg/L	5.0	15.0
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	No Relaxation
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	1.5
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.003	No Relaxation
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.01	No Relaxation
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L	0.001	No Relaxation
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L	0.01	No Relaxation

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

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## Test Report

Sample Number: VEL/W/07  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

Report No.: VEL/W/2402190007  
Format No.: 7.8 F-03  
Party Reference No.: 4000316836-037-1019  
Dated: 30/09/2023

Name of Sample: Borewell Water Sample  
Sample Group: Water/Residues and contaminants in Water  
Location: Shanthi Nagar  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Environmental Condition: 25±2°C  
Sampling and Analysis Protocol: IS: 3025, APHA 23rd Edition 2017 & STP

Reporting Date: 23/02/2024  
Period of Analysis: 19/02/2024 - 23/01/2024  
Receipt Date: 19/02/2024  
Sampling Date: 15/02/2024  
Sampling Quantity: 2.0 Ltrs.  
Sampling Type: Grab  
Preservation: Ice Box  
Parameter Required: As Per Work Order

S. No.	Test Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
Discipline : Chemical						
1.	pH (at 25°C)	IS: 3025 (P-11)	7.40	--	6.5 to 8.5	No Relaxation
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	453.13	mg/L	500	2000
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	747.12	uS/cm	--	--
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L	0.2	1
5.	Total Nitrogen	IS: 3025 (P-34)	*BLQ(**LOQ-1.0)	mg/L	--	--
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	*BLQ(**LOQ-0.2)	mg/L	--	--
7.	Total Suspended Solids	IS: 3025 (P-17)	1.34	mg/L	--	--
8.	Oil & Grease	IS: 3025 (P-39)	*BLQ(**LOQ-0.4)	mg/L	--	--
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	*BLQ(**LOQ-2.0)	mg/L	--	--
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	*BLQ(**LOQ-4.0)	mg/L	--	--



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## Test Report

Sample Number: VEL/W/07			Report No.: VEL/W/2402190007			
S. No.	Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.23	mg/L	1.0	No Relaxation
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.29	mg/L	5.0	15.0
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	No Relaxation
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	1.5
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.003	No Relaxation
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.01	No Relaxation
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L	0.001	No Relaxation
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L	0.01	No Relaxation

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

\*\*\*End of Report\*\*\*



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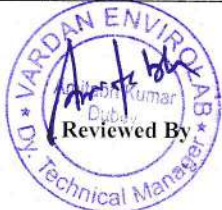
## Test Report

Sample Number: VEL/W/08  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

Report No.: VEL/W/2402190008  
Format No.: 7.8 F-03  
Party Reference No.: 4000316836-037-1019  
Dated: 30/09/2023  
Reporting Date: 23/02/2024  
Period of Analysis: 19/02/2024 - 23/01/2024  
Receipt Date: 19/02/2024  
Sampling Date: 15/02/2024  
Sampling Quantity: 2.0 Ltrs.  
Sampling Type: Grab  
Preservation: Ice Box  
Parameter Required: As Per Work Order

Name of Sample: Borewell Water Sample  
Sample Group: Water/Residues and contaminants in Water  
Location: FCI PTS Back Side Gate  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Environmental Condition: 25±2°C  
Sampling and Analysis Protocol: IS: 3025, APHA 23rd Edition 2017 & STP

S. No.	Test Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
Discipline : Chemical						
1.	pH (at 25°C)	IS: 3025 (P-11)	7.50	--	6.5 to 8.5	No Relaxation
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	452.62	mg/L	500	2000
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	717.38	uS/cm	--	--
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L	0.2	1
5.	Total Nitrogen	IS: 3025 (P-34)	*BLQ(**LOQ-1.0)	mg/L	--	--
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	*BLQ(**LOQ-0.2)	mg/L	--	--
7.	Total Suspended Solids	IS: 3025 (P-17)	1.54	mg/L	--	--
8.	Oil & Grease	IS: 3025 (P-39)	*BLQ(**LOQ-0.4)	mg/L	--	--
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	*BLQ(**LOQ-2.0)	mg/L	--	--
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	*BLQ(**LOQ-4.0)	mg/L	--	--



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## Test Report

Sample Number: VEL/W/08			Report No.: VEL/W/2402190008			
S. No.	Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.26	mg/L	1.0	No Relaxation
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.30	mg/L	5.0	15.0
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	No Relaxation
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	1.5
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.003	No Relaxation
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.01	No Relaxation
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L	0.001	No Relaxation
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L	0.01	No Relaxation

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.



\*\*\*End of Report\*\*\*

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## Test Report

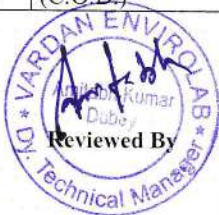
Sample Number: VEL/W/09  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

Report No.: VEL/W/2402190009  
Format No.: 7.8 F-03  
Party Reference No.: 4000316836-037-1019  
Dated: 30/09/2023

Name of Sample: Borewell Water Sample  
Sample Group: Water/Residues and contaminants in Water  
Location: Ranapur Village  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Environmental Condition: 25±2°C  
Sampling and Analysis Protocol: IS: 3025, APHA 23rd Edition 2017 & STP

Reporting Date: 23/02/2024  
Period of Analysis: 19/02/2024 - 23/01/2024  
Receipt Date: 19/02/2024  
Sampling Date: 15/02/2024  
Sampling Quantity: 2.0 Ltrs.  
Sampling Type: Grab  
Preservation: Ice Box  
Parameter Required: As Per Work Order

S. No.	Test Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
Discipline : Chemical						
1.	pH (at 25°C)	IS: 3025 (P-11)	7.45	--	6.5 to 8.5	No Relaxation
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	442.19	mg/L	500	2000
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	717.29	uS/cm	--	--
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L	0.2	1
5.	Total Nitrogen	IS: 3025 (P-34)	*BLQ(**LOQ-1.0)	mg/L	--	--
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	*BLQ(**LOQ-0.2)	mg/L	--	--
7.	Total Suspended Solids	IS: 3025 (P-17)	1.62	mg/L	--	--
8.	Oil & Grease	IS: 3025 (P-39)	*BLQ(**LOQ-0.4)	mg/L	--	--
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	*BLQ(**LOQ-2.0)	mg/L	--	--
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	*BLQ(**LOQ-4.0)	mg/L	--	--



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## Test Report

Sample Number: VEL/W/09			Report No.: VEL/W/2402190009			
S. No.	Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.24	mg/L	1.0	No Relaxation
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.27	mg/L	5.0	15.0
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	No Relaxation
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	1.5
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.003	No Relaxation
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.01	No Relaxation
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L	0.001	No Relaxation
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L	0.01	No Relaxation

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

\*\*\*End of Report\*\*\*



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## Test Report

Sample Number: VEL/W/06  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

Report No.: VEL/W/2403200006  
Format No.: 7.8 F-03  
Party Reference No.: 4000316836-037-1019  
Dated: 30/09/2023

Name of Sample: Borewell Water Sample  
Sample Group: Water/Residues and contaminants in Water  
Location: Elakalapally Village  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Environmental Condition: 25±2°C  
Sampling and Analysis Protocol: IS: 3025, APHA 23rd Edition 2017 & STP

Reporting Date: 27/03/2024  
Period of Analysis: 20/03/2024 - 27/03/2024  
Receipt Date: 20/03/2024  
Sampling Date: 14/03/2024  
Sampling Quantity: 2.0 Ltrs.  
Sampling Type: Grab  
Preservation: Ice Box  
Parameter Required: As Per Work Order

S. No.	Test Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
Discipline : Chemical						
1.	pH (at 25°C)	IS: 3025 (P-11)	7.83	--	6.5 to 8.5	No Relaxation
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	467.53	mg/L	500	2000
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	760.38	uS/cm	--	--
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L	0.2	1
5.	Total Nitrogen	IS: 3025 (P-34)	*BLQ(**LOQ-1.0)	mg/L	--	--
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	*BLQ(**LOQ-0.2)	mg/L	--	--
7.	Total Suspended Solids	IS: 3025 (P-17)	1.83	mg/L	--	--
8.	Oil & Grease	IS: 3025 (P-39)	*BLQ(**LOQ-0.4)	mg/L	--	--
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	*BLQ(**LOQ-2.0)	mg/L	--	--
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	*BLQ(**LOQ-4.0)	mg/L	--	--



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## Test Report

Sample Number: VEL/W/06			Report No.: VEL/W/2403200006			
S. No.	Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.38	mg/L	1.0	No Relaxation
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.29	mg/L	5.0	15.0
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	No Relaxation
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	1.5
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.003	No Relaxation
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.01	No Relaxation
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L	0.001	No Relaxation
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L	0.01	No Relaxation

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

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## Test Report

Sample Number: VEL/W/07  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215  
  
Name of Sample: Borewell Water Sample  
Sample Group: Water/Residues and contaminants in Water  
Location: Shanthi Nagar  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Environmental Condition: 25±2°C  
Sampling and Analysis Protocol: IS: 3025, APHA 23rd Edition 2017 & STP

Report No.: VEL/W/2403200007  
Format No.: 7.8 F-03  
Party Reference No.: 4000316836-037-1019  
Dated: 30/09/2023  
  
Reporting Date: 27/03/2024  
Period of Analysis: 20/03/2024 - 27/03/2024  
Receipt Date: 20/03/2024  
Sampling Date: 14/03/2024  
Sampling Quantity: 2.0 Ltrs.  
Sampling Type: Grab  
Preservation: Ice Box  
Parameter Required: As Per Work Order

S. No.	Test Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
Discipline : Chemical						
1.	pH (at 25°C)	IS: 3025 (P-11)	7.51	--	6.5 to 8.5	No Relaxation
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	454.62	mg/L	500	2000
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	748.50	uS/cm	--	--
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L	0.2	1
5.	Total Nitrogen	IS: 3025 (P-34)	*BLQ(**LOQ-1.0)	mg/L	--	--
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	*BLQ(**LOQ-0.2)	mg/L	--	--
7.	Total Suspended Solids	IS: 3025 (P-17)	1.37	mg/L	--	--
8.	Oil & Grease	IS: 3025 (P-39)	*BLQ(**LOQ-0.4)	mg/L	--	--
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	*BLQ(**LOQ-2.0)	mg/L	--	--
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	*BLQ(**LOQ-4.0)	mg/L	--	--



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## Test Report

Sample Number: VEL/W/07			Report No.: VEL/W/2403200007			
S. No.	Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.27	mg/L	1.0	No Relaxation
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.31	mg/L	5.0	15.0
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ (**LOQ-0.002)	mg/L	0.05	No Relaxation
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ (**LOQ-0.002)	mg/L	0.05	1.5
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ (**LOQ-0.002)	mg/L	0.003	No Relaxation
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ (**LOQ-0.002)	mg/L	0.01	No Relaxation
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ (**LOQ-0.0005)	mg/L	0.001	No Relaxation
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ (**LOQ-0.005)	mg/L	0.01	No Relaxation

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

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## Test Report

Sample Number: VEL/W/08  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

Report No.: VEL/W/2403200008  
Format No.: 7.8 F-03  
Party Reference No.: 4000316836-037-1019  
Dated: 30/09/2023

Name of Sample: Borewell Water Sample  
Sample Group: Water/Residues and contaminants in Water  
Location: FCI PTS Back Side Gate  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Environmental Condition: 25±2°C  
Sampling and Analysis Protocol: IS: 3025, APHA 23rd Edition 2017 & STP

Reporting Date: 27/03/2024  
Period of Analysis: 20/03/2024 - 27/03/2024  
Receipt Date: 20/03/2024  
Sampling Date: 14/03/2024  
Sampling Quantity: 2.0 Ltrs.  
Sampling Type: Grab  
Preservation: Ice Box  
Parameter Required: As Per Work Order

S. No.	Test Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
Discipline : Chemical						
1.	pH (at 25°C)	IS: 3025 (P-11)	7.61	--	6.5 to 8.5	No Relaxation
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	453.17	mg/L	500	2000
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	718.42	uS/cm	--	--
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L	0.2	1
5.	Total Nitrogen	IS: 3025 (P-34)	*BLQ(**LOQ-1.0)	mg/L	--	--
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	*BLQ(**LOQ-0.2)	mg/L	--	--
7.	Total Suspended Solids	IS: 3025 (P-17)	1.63	mg/L	--	--
8.	Oil & Grease	IS: 3025 (P-39)	*BLQ(**LOQ-0.4)	mg/L	--	--
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	*BLQ(**LOQ-2.0)	mg/L	--	--
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	*BLQ(**LOQ-4.0)	mg/L	--	--



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## Test Report

Sample Number: VEL/W/08			Report No.: VEL/W/2403200008			
S. No.	Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.32	mg/L	1.0	No Relaxation
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.34	mg/L	5.0	15.0
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	No Relaxation
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	1.5
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.003	No Relaxation
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.01	No Relaxation
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L	0.001	No Relaxation
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L	0.01	No Relaxation

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

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## Test Report

Sample Number: VEL/W/09  
Name & Address of the Party: M/s NTPC Limited  
Telangana Super Thermal Power Project,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

Report No.: VEL/W/2403200009  
Format No.: 7.8 F-03  
Party Reference No.: 4000316836-037-1019  
Dated: 30/09/2023

Name of Sample: Borewell Water Sample  
Sample Group: Water/Residues and contaminants in Water  
Location: Ranapur Village  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Environmental Condition: 25±2°C  
Sampling and Analysis Protocol: IS: 3025, APHA 23rd Edition 2017 & STP

Reporting Date: 27/03/2024  
Period of Analysis: 20/03/2024 - 27/03/2024  
Receipt Date: 20/03/2024  
Sampling Date: 14/03/2024  
Sampling Quantity: 2.0 Ltrs.  
Sampling Type: Grab  
Preservation: Ice Box  
Parameter Required: As Per Work Order

S. No.	Test Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
Discipline : Chemical						
1.	pH (at 25°C)	IS: 3025 (P-11)	7.51	--	6.5 to 8.5	No Relaxation
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	441.34	mg/L	500	2000
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	718.37	uS/cm	--	--
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L	0.2	1
5.	Total Nitrogen	IS: 3025 (P-34)	*BLQ(**LOQ-1.0)	mg/L	--	--
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	*BLQ(**LOQ-0.2)	mg/L	--	--
7.	Total Suspended Solids	IS: 3025 (P-17)	1.63	mg/L	--	--
8.	Oil & Grease	IS: 3025 (P-39)	*BLQ(**LOQ-0.4)	mg/L	--	--
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	*BLQ(**LOQ-2.0)	mg/L	--	--
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	*BLQ(**LOQ-4.0)	mg/L	--	--



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## Test Report

Sample Number: VEL/W/09			Report No.: VEL/W/2403200009			
S. No.	Parameters	Test Method	Results	Units	Limits of IS: 10500-2012	
					Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.51	mg/L	1.0	No Relaxation
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.27	mg/L	5.0	15.0
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	No Relaxation
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.05	1.5
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.003	No Relaxation
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L	0.01	No Relaxation
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L	0.001	No Relaxation
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L	0.01	No Relaxation

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

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## Test Report

Page No. 1/2

Sample Number : VELW/10

Name & Address of the Party : M/s NTPC Limited  
Ramagundam Super Thermal Power Station, P.O. :  
Jyotinagar, District : Peddapalli, Telangana - 505215

Report No. : VELW/2311150010

Format No : 7.8 F 03

Party Reference No : 4000316836-037-1019

Reporting Date : 20/11/2023

Period of Analysis : 15/11/2023-20/11/2023

Receipt Date : 15/11/2023

Sampling Date : 08/11/2023

Sampling Quantity : 5.0 Ltrs + 250 ml

Sampling Type : Grab

Name of Sample : Pond Water  
Sample Group : Water/Residues and contaminants in Water  
Location : Pond Near N1 Ash Pond of NTPC  
Ramagundam

Sample Collected by : VEL Representative (Mr. Rajesh)

Environmental Condition : 25±2°C

Sampling and Analysis : APHA & IS  
rotocol

S.No.	Test Parameter	Test Method	Results	Units
Discipline : Chemical				
1	pH (at 25 °C)	IS:3025 (Part-11)	8.45	--
2	Electrical conductivity	IS:3025 (Part-14)	464.52	µS/cm
3	Residual Free Chlorine (RFC),Min	IS:3025 (Part-26)	BLQ(LOQ-0.1 5)	mg/L
4	Total Dissolved Solids (at 180°C),Max	IS:3025 (Part-16)	288.36	mg/L
5	Iron (as Fe),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	0.02	mg/L
6	Zinc (as Zn),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	0.32	mg/L
7	Total Chromium (as Cr),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.0 02)	mg/L
8	Copper (as Cu),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.0 02)	mg/L
9	Cadmium (as Cd),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.0 02)	mg/L
10	Total Suspended Solids	IS 3025 P-17	BLQ(LOQ-1.0)	mg/L
11	Lead (as Pb),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.0 02)	mg/L
12	Total Arsenic (as As),Max	VEL/STP/ICP/W-01, Issue No. -01,	BLQ(LOQ-0.0	mg/L

Reviewed By  
Technical Manager

Authorized Signatory  
Dr. Shiv  
Authorized Signatory

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## Test Report

Page No. 2/2

Sample Number : VELW/10

Report No. : VELW/2311150010

S.No.	Test Parameter	Test Method	Results	Units
12		Issue date 01/11/2021	05)	
13	Mercury (as Hg),Max	VEL/STP/ICP/W-01, Issue No. -01, Issue date 01/11/2021	BLQ(LOQ-0.0 005)	mg/L
14	Biochemical Oxygen Demand	IS:3025 (P-44)	BLQ(LOQ-2.0)	mg/L
15	Chemical Oxygen Demand	APHA 5220 B Open Reflux Method	BLQ(LOQ-4.0)	mg/L
16	Oil and Grease	IS:3025 (P-39)	BLQ(LOQ-0.4)	mg/L
17	Total Nitrogen	IS 3025 (P-34) Kjeldhal Method, R:2009	BLQ(LOQ-1.0)	mg/L
18	Phosphorus as P	IS 3025 (P-31)	BLQ(LOQ-0.2)	mg/L

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification.

\*\*\*End of Report\*\*\*



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# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Hr)  
ISO 9001 | ISO 14001 | ISO 45001



## Test Report

Sample Number: VEL/W/10  
Name & Address of the Party: M/s NTPC Limited  
Ramagundam Super Thermal Power Station,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana - 505215  
Name of Sample: Ash Pond Water Sample  
Sample Group: Water/Residues and contaminants in Water  
Location: Pond Near N1 Ash Pond of NTPC Ramagundam  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Environmental Condition: 25±2°C  
Sampling and Analysis Protocol: IS: 3025, APHA 23rd Edition 2017 & STP

Report No.: VEL/W/2312210017  
Format No.: 7.8 F-03  
Party Reference No.: 4000316836-037-1019  
Dated: 30/09/2023  
Reporting Date: 29/12/2023  
Period of Analysis: 21/12/2023 - 29/12/2023  
Receipt Date: 21/12/2023  
Sampling Date: 15/12/2023  
Sampling Quantity: 5.0 Ltrs. + 250 ml  
Sampling Type: Grab  
Preservation: Ice Box  
Parameter Required: As Per Work Order

S. No.	Test Parameters	Test Method	Results	Units
Discipline : Chemical				
1.	pH (at 25°C)	IS: 3025 (P-11)	7.24	--
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	312.00	mg/L
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	503.22	uS/cm
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L
5.	Total Nitrogen	IS: 3025 (P-34)	1.16	mg/L
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	0.26	mg/L
7.	Total Suspended Solids	IS: 3025 (P-17)	1.26	mg/L
8.	Oil & Grease	IS: 3025 (P-39)	0.48	mg/L
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	2.18	mg/L
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	9.67	mg/L



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# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Hr)  
ISO 9001 | ISO 14001 | ISO 45001



## Test Report

Sample Number: VEL/W-10			Report No.: VEL/W/2312210017	
S. No.	Parameters	Test Method	Results	Units
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.30	mg/L
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.36	mg/L
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

\*\*\*End of Report\*\*\*



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# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Hr)  
ISO 9001 | ISO 14001 | ISO 45001



## Test Report

Sample Number: VEL/W/10  
Name & Address of the Party: M/s NTPC Limited  
Ramagundam Super Thermal Power Station,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana - 505215  
Report No.: VEL/W/2402030010  
Format No.: 7.8 F-03  
Party Reference No.: 4000316836-037-1019  
Dated: 30/09/2023  
Reporting Date: 06/02/2024  
Period of Analysis: 03/02/2024 - 06/02/2024  
Receipt Date: 03/02/2024  
Sampling Date: 11/01/2024  
Sampling Quantity: 5.0 Ltrs. + 250 ml  
Sampling Type: Grab  
Preservation: Ice Box  
Parameter Required: As Per Work Order  
Name of Sample: Ash Pond Water Sample  
Sample Group: Water/Residues and contaminants in Water  
Location: Pond Near N1 Ash Pond of NTPC Ramagundam  
Sample Collected By: VEL Representative  
Environmental Condition: 25±2°C  
Sampling and Analysis Protocol: IS: 3025, APHA 23<sup>rd</sup> Edition 2017 & STP

S. No.	Test Parameters	Test Method	Results	Units
Discipline : Chemical				
1.	pH (at 25°C)	IS: 3025 (P-11)	8.40	--
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	321.00	mg/L
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	517.74	uS/cm
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L
5.	Total Nitrogen	IS: 3025 (P-34)	1.68	mg/L
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	0.34	mg/L
7.	Total Suspended Solids	IS: 3025 (P-17)	1.47	mg/L
8.	Oil & Grease	IS: 3025 (P-39)	0.57	mg/L
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	2.49	mg/L
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	10.07	mg/L



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# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Hr)  
ISO 9001 | ISO 14001 | ISO 45001



## Test Report

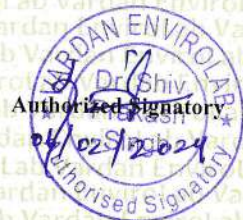
Sample Number: VEL/W/10			Report No.: VEL/W/2402030010	
S. No.	Parameters	Test Method	Results	Units
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.23	mg/L
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.49	mg/L
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

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VEL/E-03/11/19/085003





## Test Report

Sample Number:  
Name & Address of the Party:

VEL/W/10  
M/s NTPC Limited  
Ramagundam Super Thermal Power Station,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana - 505215

Report No.:  
Format No.:  
Party Reference No.:

VEL/W/2402030010  
7.8 F-03  
4000316836-037-1019  
Dated: 30/09/2023

Name of Sample:  
Sample Group:  
Location:  
Sample Collected By:  
Environmental Condition:  
Sampling and Analysis Protocol:

Ash Pond Water Sample  
Water/Residues and contaminants in Water  
Pond Near N1 Ash Pond of NTPC Ramagundam  
VEL Representative  
25±2°C  
IS: 3025, APHA 23<sup>rd</sup> Edition 2017 & STP

Reporting Date: 06/02/2024  
Period of Analysis: 03/02/2024 - 06/02/2024  
Receipt Date: 03/02/2024  
Sampling Date: 11/01/2024  
Sampling Quantity: 5.0 Ltrs. + 250 ml  
Sampling Type: Grab  
Preservation: Ice Box  
Parameter Required: As Per Work Order

S. No.	Test Parameters	Test Method	Results	Units
Discipline : Chemical				
1.	pH (at 25°C)	IS: 3025 (P-11)	8.40	--
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	321.00	mg/L
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	517.74	uS/cm
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L
5.	Total Nitrogen	IS: 3025 (P-34)	1.68	mg/L
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	0.34	mg/L
7.	Total Suspended Solids	IS: 3025 (P-17)	1.47	mg/L
8.	Oil & Grease	IS: 3025 (P-39)	0.57	mg/L
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	2.49	mg/L
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	10.07	mg/L



Page No. 1 of 2



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# Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Hr)  
ISO 9001 | ISO 14001 | ISO 45001



## Test Report

Sample Number: VEL/W/10			Report No.: VEL/W/2402030010	
S. No.	Parameters	Test Method	Results	Units
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.23	mg/L
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.49	mg/L
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

\*\*\*End of Report\*\*\*



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## Test Report

Sample Number: VEL/PE/01  
Name & Address of the Party: M/s NTPC Limited  
Ramagundam Super Thermal Power Station,  
P.O. : Jyotinagar, District : Peddapalli,  
Telangana – 505215

Report No.: VEL/PE/2403200001  
Format No.: 7.8 F-03  
Party Reference No.: 4000316836-037-1019  
Dated: 30/09/2023

Name of Sample: Ash Pond Water Sample  
Sample Group: Water/Residues and contaminants in Water  
Location: Pond Near N1 Ash Pond of NTPC Ramagundam  
Sample Collected By: VEL Representative (Mr. Rajesh)  
Environmental Condition: 25±2°C  
Sampling and Analysis Protocol: IS: 3025, APHA 23rd Edition 2017 & STP

Reporting Date: 27/03/2024  
Period of Analysis: 20/03/2024 - 27/03/2024  
Receipt Date: 20/03/2024  
Sampling Date: 16/03/2024  
Sampling Quantity: 5.0 Ltrs. + 250 ml  
Sampling Type: Grab  
Preservation: Ice Box  
Parameter Required: As Per Work Order

S. No.	Test Parameters	Test Method	Results	Units
Discipline : Chemical				
1.	pH (at 25°C)	IS: 3025 (P-11)	7.63	--
2.	Total Dissolved Solids (at 180°C)	IS: 3025 (P-16)	334.45	mg/L
3.	Electrical Conductivity (at 25°C)	IS: 3025 (P-14)	522.10	uS/cm
4.	Residual Free Chlorine (R.F.C.)	IS: 3025 (P-26)	*BLQ(**LOQ-0.15)	mg/L
5.	Total Nitrogen	IS: 3025 (P-34)	2.35	mg/L
6.	Total Phosphorous (as P)	IS: 3025 (P-31)	0.68	mg/L
7.	Total Suspended Solids	IS: 3025 (P-17)	2.10	mg/L
8.	Oil & Grease	IS: 3025 (P-39)	0.63	mg/L
9.	Biochemical Oxygen Demand (B.O.D.) (3 Days @27°C)	IS: 3025 (P-44)	1.85	mg/L
10.	Chemical Oxygen Demand (C.O.D.)	IS: 3025 (P-58)	11.25	mg/L



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## Test Report

Sample Number: VEL/PE/01			Report No.: VEL/PE/2403200001	
S. No.	Parameters	Test Method	Results	Units
11.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.32	mg/L
12.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	0.46	mg/L
13.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L
14.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L
15.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L
16.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.002)	mg/L
17.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.0005)	mg/L
18.	Total Arsenic (as As)	VEL/STP/ICP/W-01, Issue No.- 01, Issue Date : 01/11/2021	*BLQ(**LOQ-0.005)	mg/L

Note: STP- Standard Testing Procedure, \*BLQ- Below Limit of Quantification, \*\*LOQ- Limit of Quantification.

\*\*\*End of Report\*\*\*



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