



MAHAGENCO
Maharashtra State Power Generation Co. Ltd.
CIN: U40100MH2005SGC153648

(A GOVERNMENT OF MAHARASHTRA UNDERTAKING)

CHANDRAPUR SUPER THERMAL POWER STATION
MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED
(ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 & ISO 50001:2018)
Office of: Chief Engineer, C.S.T.P.S. Urjanagar, Chandrapur - 442404
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CHN/Env/MoEF&CC/

1001730

Date:

30 JUL 2026

To

Additional Principal Chief Conservator of Forests,
Ministry of Environment, Forest & Climate Change (WCZ)
Ground floor, East Wing, "New Secretary building",
Civil line Nagpur-440001.

By Email: eccompliance-mh@gov.in

Sub: - Submission of Six Monthly Compliance Reports of Environmental Clearances (EC) of CSTPS, Chandrapur.

Ref: - 1. MPCB CONSENT vide UAN No.0000274332/CR/2605000040 dated 03.05.2026.
2. TO letter CHN/Env/MoEF&CC/002362 dated 25.07.2022
3. EC letter No. J- 13011/ 53 / 2008- IA.II (T) dated 15.06.2018.
4. EC letter No. J- 13011/ 53 / 2008- IA.II (T) dated 31.03.2016.
5. EC letter No. J- 13011 / 53 /2008- IA.II (T) dated 30.01.2009.
6. CTE No. BO/RO (P&P)/CC-485 dated 30.12.2008
7. EC letter No. J- 13011 / 15 / 87- IA.II (T) dated 03.07.1990.

Dear Sir,

With reference to subject, please find enclosed herewith the Six Monthly Compliance Reports of Environmental Clearances for the period **January 2026 to June 2026** pertain to Chandrapur Super Thermal Power Station, Chandrapur. The report comprises-

1. Environment Clearance Conditions
2. Stack Emission Measurement for January 2026 to June 2026
3. Ambient Air Quality Monitoring for January 2026 to June 2026
4. Fugitive Dust Emission for January 2026 to June 2026
5. Effluent Quality for January 2026 to June 2026
6. Ash Generation & its Utilization for January 2026 to June 2026
7. Noise Monitoring for January 2026 to June 2026
8. Ground water and Soil Quality Report for January 2026 to June 2026
9. Surface water analysis Report for January 2026 to June 2026
10. Study of radioactivity & heavy metals in coal and ash
11. Environment Statement 2025-26 and Plantation report 2025-26
12. Coal ash & Sulphur analysis report
13. Ground level concentration study report for April 2026

Thanking you

Yours faithfully

[Signature]
30/07/26
Chief Engineer (O&M)
CSTPS, Chandrapur

Encl.: As above.

Copy s.w. r. to:

1. The Executive Director (O&M-II/E&S), MSPGCL, Mumbai.
2. The Divisional Head-IPC-II, CPCB, Delhi.
3. Regional Officer MPCB, Chandrapur
4. Sub-Regional Officer MPCB, Chandrapur

**SIX-MONTHLY ENVIRONMENTAL
MONITORING REPORT
FOR**

The Period from January 2026 to June 2026

of

Chandrapur Super Thermal Power Station

Chandrapur

Urjanagar, Chandrapur

Maharashtra - 442404

SIX MONTHLY COMPLIANCE REPORTS
OF
ENVIRONMENTAL CLEARANCES (EC)

2920 MW (2x210+5x500) THERMAL POWER PLANT
AT
MAUZA DEWAI, 1 TO 6, GOVINDPUR, RAYYATAWARI,
URJANAGAR, TALUKA & DISTRICT CHANDRAPUR
MAHARASHTRA

Submitted to:

Ministry of Environment, Forest & Climate Change
Central Pollution Control Board, New Delhi &
Maharashtra Pollution Control Board, Mumbai

Submitted By:

Chandrapur Super Thermal Power Station,
Chandrapur-442404, Maharashtra.
(January 2026 to June 2026)

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Introduction

Chandrapur Super Thermal Power Station in Chandrapur is a coal-fired thermal power plant with an installed capacity of 2,920 MW (2 x 210 MW + 5 x 500 MW).

The plant site is located at Mauza Dewai, 1 to 6, Govindpur, Rayyatawari, Urjanagar, Taluka & District Chandrapur, Maharashtra State, 4.75 km aeri ally away from Chandrapur city. The total factory area is 11267.10 hectares, and 1117 hectares of open space are available for plantation. The villages of Kachrala, Gunjala, Tadali, Kawathi, Tirvanja, Chhota Nagpur, Ambhora, Khairgaon, Chargaon, along with the western coal fields of Bhatadi, Durgapur, and Padmapur, surround the plant site.

CSTPS has been granted Environmental Clearances from the Ministry of Environment & Forest, as well as Consent to Establish and Consent to Operate from the Maharashtra Pollution Control Board. In compliance with statutory requirements, environmental quality monitoring is conducted regularly at locations designated by the Regional Officer, MPCB, Chandrapur. Four Continuous Ambient Air Quality Monitoring Stations have been installed at four different locations within the plant boundary, as per the wind rose and suggested by the RO, MPCB, Chandrapur. Additionally, environmental monitoring & analysis are being carried out by the NABL-accredited and MoEF&CC-recognized laboratory, M/S. Mahabal Enviro Engineers Pvt Ltd.

Table: Unit-wise Details of CSTPS

Particulars	Unit	Unit-3	Unit-4	Unit-5	Unit-6	Unit-7	Unit-8	Unit-9
Installed Capacity	MW	210	210	500	500	500	500	500
Date of Commercial Operation	--	01-Apr-86	04-Nov-86	01-Dec-92	01-Dec-93	01-Mar-98	04-Jun-16	24-Nov-16
Height of Stack	Mtr	150	150	200	200	275	275	275
Particulate Emission limit as per CCA	mg/Nm ³	100	100	100	100	100	50	50
System Installed for PM control	Electrostatic Precipitator (ESP) & Ammonia Flue gas conditioning system (AFGCS)						Electrostatic Precipitator (ESP)	
Efficiency of ESP	%	99.24	99.24	99.87	99.87	99.89	99.937	99.937
Units No. 1 & 2, having a capacity of 210 MW each, were decommissioned on 28-08-2014 and 12-01-2016, respectively.								

The pointwise compliance status of the Environmental clearance for the Chandrapur Super Thermal Power Station, Chandrapur, is furnished herewith.

Compliance Status of Environmental Clearance

Unit No – 7: 1x500 MW

Letter from Additional Director, MoEF Bhopal No. 4-9/92(ENV)/589 dated 24.03.2009.
MoEF New Delhi Environmental Clearance Letter No. J-13011/15/87-I/(II) dated 03-07-1990.

Sr No.	EC Conditions	Compliance Status
(i)	Electrostatic precipitators having an operational efficiency of not less than 99.6% should be installed so as to ensure that particular emission are not exceeding 150 mg per cubic meter.	Complied. CSTPS has installed Electrostatic precipitators (ESP) for Unit – 7 with an efficiency of 99.89%. Also, an Ammonia flue gas conditioning system (AFGCS) was used in conjunction with the ESP. These ESP's are regularly operated and maintained to achieve the prescribed norms.
(ii)	Multi flue stack of not less than 275 meters height should be provided.	Complied. CSTPS has provided a mono-flue stack with a height of 275 meters, as this EC condition is only for a single unit, i.e., 1 x 500 MW.
(iii)	The plant will put up flue gas de-sulphuration unit as part of unit – 7 since the ground level concentration of SO ₂ and NO _x will beyond standard prescribed.	Being Complied. CSTPS submitted an application on the PARIVESH Portal (Proposal No. IA/MH/THE/565044/2026) on 10 January 2026, pursuant to the MoEF&CC Notification dated 11 July 2025, seeking a review of SO ₂ emission standards for Category-B Thermal Power Stations. The EAC meeting for the same is conducted on dated 21.05.2026. The compliance on the observations & recommendations by EAC is under submission.
(iv)	The temperature of cooling water discharged to the reservoir should not exceed 5.0°C above ambient temperature.	Complied. CSTPS has provided an induced draft cooling tower (IDCT) for unit No. 7, where cooling water is recirculated in a closed loop, and there is no discharge of cooling water into natural water bodies. The cooling water temperature remains within range throughout the cycle. Further, cooling water blowdown is treated at ETP, and treated water is reused for ash slurry disposal to the ash bund.
(v)	The bleed off from the boiler house, from cooling towers, effluent from DM plant will be fully treated and reused so that	Complied. All the effluents from the power plant are treated

	there is no effluent discharge to the river.	at the Effluent Treatment Plant. There is no discharge in the river. The capacities of 4 ETPs are: ETP-I: 1600 M ³ /hr, ETP-II: 500 M ³ /hr ETP-III: 100 M ³ /hr, ETP-IV: 675 M ³ /hr
(vi)	Effluent from ash pond shall be totally recirculated within the plant.	Complied. Ash water recovery system is operational at the ash bund. Ash water recovery is reused and recirculated for ash slurry disposal to the ash pond.
(vii)	Adequate number of air and water quality, including ground water, monitoring stations will be set up at different locations in and around the plant. The location of these monitoring stations should be selected in consultation with state pollution control board, India meteorological department. The monitored data on air and water quality should be furnished to these ministries and state pollution control board once in three months.	Complied 1) Ambient Air Quality Monitoring & fugitive dust emission monitoring is carried out at different locations in and around the power station (Annexure-I). 2) Groundwater quality & Soil quality from 14 locations selected in consultation with the state pollution control board around the power station and ash bund area are monitored in all 3 seasons to assess the impact (Annexure - II). 3) The effluent analysis of all 4 ETPs, Boiler blowdown, Cooling Tower blowdown, DM plant waste, and Ash bund Effluent is regularly analyzed from a MoEF&CC-recognized agency (Annexure - III). All the industrial effluents are treated in effluent treatment plants (ETPs), and treated water is reused for Ash slurry disposal to the ash bund.
(viii)	The stack will be provided with automatic monitoring instrument for measuring and recording SO ₂ and NO _x .	Complied CSTPS has installed online PM, SO ₂ , and NO _x monitoring analyzers (OCEMS), which are connected to the CPCB and MPCB servers.
(ix)	Adequate measures for control of noise due to various operations within different plant units should be taken. The noise levels should confirm to standards prescribed by ministry under the Environment (Protection) Act.	Complied. CSTPS has taken Adequate measures to control the noise levels of various plant auxiliary units, and all necessary precautions have also been taken to maintain them. The noise level measurement for ambient noise and workplace noise is regularly monitored (by M/s Mahabal Enviro Engineers Pvt. Ltd.) (Annexure - IV).
(x)	Precautionary measures for control of fire and explosion hazards arising due to transportation, use of storage of coal and	Complied. CSTPS has a dedicated fire services Section.

	oil should be taken.	Separately, CSTPS has installed Fire alarms, fire hydrants & spray systems. All adequate measures are available for the control of fire & explosion hazards arising from the transportation, use & storage of coal and oil.
(xi)	A green belt development plan covering the entire area of the west bank thermal power station should be prepared and submitted to this ministry within 6 months time. The plant species selected should be native to the area and they should given maximum green cover. The species so selected should be sensitive as well as resistant varieties to emission SO ₂ .	Complied. CSTPS has carried out tree plantation in and around the power station. The area covered under the green belt is 49.67% of the open area. The present status is enclosed (Annexure- V). Further 3000 no. of trees planted during Jan to June 2026 the details are as below: Total Plant area: 11267.10 Hectare. Open Space available for Plantation:-1117 Hectare. Total area under tree plantation:-554.78 Hectare. Total Tree Plantation: 1330113 Nos. (including bamboo plants) upto June 2026. Plant species such as; Acacia nilotica (babul), Lencana lencoephala (subabul), Shivan, Sisam, Ponogamiapinnata (karanj), Casia, Gulmohar, Petraform, Banyan, Encalyptus (Nilgiri), Neem, Albirralebbback (Sirus), Neriumindicum, Jambolana, Ocimumbasiticum (Tulsi), bamboo species which are resistance to dust & gases are planted. Further, MRSAC identified and mapped 10,522 countable trees and delineated Tree Clad Area covering 1,251.16 hectares out of the total geographical area of 4,147.28 hectares using Very High Resolution (VHR) satellite imagery during 2022. . The tree-clad area mapped in CSTPS has been categorized as Open Forest, with a crown density between 10% and 40%.
(xii)	They should carry out regular monitoring of flora and fauna, fisheries and bottom sediments of the reservoir to monitor the impact of any discharges from the thermal power station.	Complied Power station effluents are not discharged to any natural source. CSTPS has ETPs for treating plant effluents. Treated effluents are utilized for ash disposal to the ash bund. CSTPS has initiated an environmental assessment to evaluate the impact of the Chandrapur thermal power plant and WCL's mining activities on the Tadoba Andhari Tiger Project. A joint study has been conducted by NEERI and WII since 2020. The study is in process, and CSTPS is anticipating the final report. (Annexure-VI).

(xiii)	Protective and control measures in coal transportation areas and the conveyor belts system should be taken to minimize the coal dust pollution in these zones.	Complied Coal transported through trucks/wagons is covered with tarpaulin. Necessary protective and control measures for the reduction and control of dust in the Coal Handling Plant area are carried out. Dust Extraction, Dust Suppression system, water spraying system at conveyor belts and crushing houses, fogger system at wagon tippler, water spraying at coal stack yard, cladding to all conveyor belts, etc., are provided (Annexure-VII). Further, a closed pipe conveyor belt system has been in operation at CSTPS since 2021 for coal transportation. Consequently, transportation of coal by trucks has been completely discontinued, thereby eliminating fugitive emissions associated with truck movement and significantly improving ambient air quality.

Compliance Status of Environmental Clearance

Unit No – 8&9: 2x500 MW

EC letter No. J- 13011/ 53 / 2008- IA.II (T) dated 15.06.2018.

EC letter No. J- 13011/ 53 / 2008- IA.II (T) dated 31.03.2016.

EC letter No. J- 13011 / 53 /2008- IA.II (T) dated 30.01.2009.

EC Cond No.	EC Conditions	Compliance Status
(i)	No additional land shall be acquired for any activity/facility of this project	Complied CSTPS has not acquired any additional land for any activity/facility of the current project.
(ii)	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.4% and 34% respectively at any given time.	Complied CSTPS is not using high-sulfur, high-ash coal.
(iii)	A bi-flue stack of 275 m height shall be provided with continuous online monitoring equipments for SO _x , NO _x and Particulate. Exit velocity of flue gases shall not be less than 22 m/sec.	Complied CSTPS has provided a 275 m-high bi-flue stack for units 8 & 9, with continuous online monitoring equipment for SO ₂ , NO _x , and particulate matter, and it is connected to the MPCB/CPCB server. The exit velocity of the flue gas is as per EC conditions.
(iv)	High efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm ³	Complied CSTPS has installed 72 ESP fields for units 8 & unit 9, achieving an efficiency of 99.937%, and the installation work was completed in 2016.
(v)	Space provision shall be kept for retrofitting of FGD, if required at a later date.	Complied CSTPS has space available for retrofitting/installation of FGD.
(vi)	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.	Complied CSTPS has provided dry ash silos, dry dust extraction/suppression systems to unit 8 & unit 9. All 02 dry ash silo with Bag filters are in operation. All 02 HSCD ash silo construction, bag filter & vent blower erection were completed in 2016, and the system is in operation. The Dust Extraction system at the Crusher House and the bunker area has been completed and has been in operation since 2016.

		The dust suppression system is provided in the wagon tippler area and transfer points.
(vii)	Fly ash shall be collected in dry form and storage facility (silos) shall be provided, 100% fly ash utilization shall be ensured from day one. Unutilized fly ash, in emergency and bottom ash shall be disposed of in the ash pond in the form of slurry.	Being Complied Dry ash silo (02) established to collect dry ash for further utilization; unutilized fly ash and bottom ash are disposed of in the ash pond in the form of slurry with recirculation of ash water. The monthly ash generation & utilization report is enclosed. Further, concrete action plan for 100% ash utilization is prepared and enclosed herewith(Annexure-VIII).
(viii)	Existing ash pond shall be for disposal of bottom ash. No ash pond shall be created for this expansion project.	Complied CSTPS has not created any additional/separate ash pond for units 8 & 9. The existing ash pond is sufficient for the disposal of bottom ash.
(ix)	Closed cycle cooling system with cooling towers shall be provided. COC of at least 6 shall be adopted and the effluent shall be treated as per the prescribed norms.	Complied CSTPS has provided Natural draft cooling towers (NDCT) with a closed-water circulation system. The Cycle of Concentration (COC) is maintained in accordance with prescribed norms. Generated blowdown effluents from the NDCT pond are treated in ETP IV and reused to prepare ash slurry. Further, Unit Nos. 8 & 9 have been using tertiary treated sewage water from the STP for cooling purposes since December 2023, replacing the use of raw water. This has resulted in a substantial reduction in raw water intake and supports the conservation and efficient utilization of freshwater resources.
(x)	The treated effluents conforming to the prescribed standards shall be re-circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not get mixed.	Complied CSTPS has installed a single ETP IV with a capacity of 675 m ³ /hr, catering to both Units 8 & 9. All effluent is adequately treated in the ETP, and the treated water is reused within the plant for ash slurry disposal to the ash bund. Hence, there is no mixing of plant effluents with stormwater. CSTPS has adopted a “ Zero Liquid Discharge Policy ”.
(xi)	A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation.	Complied CSTPS has provided 2 STPs with capacities of

		240 M ³ /hr for the residential colony (installed and in operation from 1986) and 1 M ³ /hr for units 8 & unit 9 (installed and in operation from 2016), where sewage effluents are treated & recovered, and utilized for ash slurry disposal, gardening, and plantation.
(xii)	Rainwater harvesting should be adopted. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology within a period of three months from the date of clearance and details shall be furnished.	Complied A total of three Trapezoidal sections of open-bottom settling tanks/open recharge basin, namely 1) RB-1- 35m x 35m x 3.5m 2) RB-2- 35m x 35m x 3.5m 3) RB-3- 25m x 25m x 3.5m
(xiii)	Adequate safety measures 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 at Bhopal.	Complied Ventilation system, Dust suppression system, water sprinkler system, Dry fog system, and rain gun are being provided wherever required. A fire hydrant system is provided in the coal stack yard, and a water spray system is provided in the conveyers and crusher house.
(xiv)	Storage facilities for auxiliary liquid fuel such as LDO and HFO/LSHS shall be made in the plant area where risk is minimum to the storage facilities. Disaster Management Plan shall be prepared to meet any eventually in case of an accident taking place, Mock drills shall be conducted regularly and based on the same, modifications required, if any shall be incorporated in the DMP, Sulphur content in the liquid fuel will not exceed 0.5%.	Complied CSTPS has provided storage facilities for LDO/HFO located considering minimum risk. Mock Drills are conducted regularly, and any necessary modifications shall be made based on the feedback. HFO/LDO storage tank work is completed. The disaster management plan is prepared (Annexure-IX).
(xv)	Regular monitoring of ground water including heavy metals (Hg, Cr, As and Pb) in and around the ash pond area shall be carried out, records maintained and six monthly reports shall be furnished to the Regional Office of this Ministry.	Complied CSTPS has given work to M/s. Mahabal Enviro Engineers Pvt. Ltd. for regular monitoring of groundwater, including heavy metals, from within and around the ash pond area. (Annexure-II) Monitoring results are regularly submitted in six-monthly reports to the Regional Officer, MPCB, and MoEF&CC. Reports are available on the company's website.
(xvi)	A green belt of adequate width and density shall be developed around the plant periphery covering 34 acres of area	Complied CSTPS has carried out massive tree plantations

	preferably with local species.	in and around the power station. The area covered under the green belt is 49.67% of the open area. (Annexure – V). MRSAC, Nagpur carried out detailed mapping of MAHAGENCO's estate/property situated at CSTPS, Chandrapur using Very High Resolution (VHR) satellite imagery during 2022. In addition, Land Use/Land Cover (LULC) mapping of the CSTPS area was undertaken in accordance with the classification system prescribed by the National Remote Sensing Centre (NRSC), Department of Space, Government of India. MRSAC identified and mapped 10,522 countable trees and delineated Tree Clad Area covering 1,251.16 hectares out of the total geographical area of 4,147.28 hectares. The tree-clad area mapped in CSTPS has been categorized as Open Forest, with a crown density between 10% and 40%.
(xvii)	Adequate funds shall be allocated for undertaking CSR activities.	Being Complied CSR activities undertaken by CSTPS Chandrapur is enclosed (Annexure-X).
(xviii)	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Complied During the construction phase, CSTPS provided first aid and sanitation arrangements for the drivers and other contract workers. The construction phase is completed.
(xix)	Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 75 dB (A). 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.	Complied CSTPS has provided acoustic enclosures in the high-noise areas, including the D.G. Set, compressed air system, and turbine. Protective equipment, such as earplugs, has been provided. CSTPS regularly carries out periodic health check-ups, including audiometry tests for all employees. Recently, audiometry tests were conducted. Factory noise examination is carried out regularly.
(xx)	Regular monitoring of the ambient air quality in the impact zone shall be carried out and records maintained. In case the air quality levels exceed the prescribed standards, necessary corrective measures, shall be taken	Complied CSTPS is carrying out regular monitoring of Ambient Air Quality by a third-party NABL-accredited consultant/MOEFCC-recognized agency (M/S. Mahabal Enviro Engineers Pvt. Ltd.). Please see (Annexure-I)
(xxi)	Regular monitoring of ground level	Complied

	concentration of SO ₂ , NO _x , SPM and RSPM 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 date shall also be put on the website of the company.	CSTPS is carrying out regular monitoring of ground-level concentration of SO ₂ , NO _x , SPM, and RSPM in the Impact zone decided in consultation with SPCB, and records are available with CSTPS (Annexure-XI). Periodic reports are submitted to the Regional Office of this Ministry & MPCB.
(xxii)	A detailed plan for health monitoring in the area within the impact zone shall be prepared and implemented along with local administration. The plan should, besides others, also provide for monitoring of respiratory disorders. The plan should be submitted within 3 months to this Ministry and its Regional Office at Bhopal.	Complied Health Monitoring camps were held on 13.01.2026 and 18.02.2026 for residents of Urjangar colony & nearby villages such as Durgapur, Khairgaon, and Ambhora at Snehbandh Sabhagruh, Urja Nagar, Chadrapur. Details of the health camp & photographs are attached (Annexure-XII).
(xxiii)	Provision shall be made for the housing of construction labour 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 be removed after the completion of the project.	Complied CSTPS has met the required conditions during the project's construction phase. Construction phase is completed & project is under operation from 04.06.2016 & 24.11.2016 respectively.
(xxiv)	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 http://envfor.nic.in	Complied
(xxv)	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated Environmental safeguards.	Complied A separate environment management cell with qualified staff has already been formed at CSTPS to implement the stipulated Environmental safeguards.

(xxvi)	Half yearly report on the status implementation of the stipulated conditions and environmental safeguards shall be submitted to his Ministry/ Regional Office/CPCB/SPCB.	Complied The report is submitted to the Ministry/Regional Office/CPCB/ SPCB.
(xxvii)	Regional Office of the Ministry of Environment & Forests located at Bhopal 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 upload the compliance status in their website and update the same from time to time. Criteria pollutant levels (stack and ambient levels) will be displayed at the main gate of the power plant.	Complied The compliance status is submitted to the MoEF Regional Office, Nagpur. Criteria pollutant levels (stack and ambient levels) are displayed at the main gate of the power plant. (Annexure-XIII). The compliance status is uploaded on website of MSPGCL and updated the same from time to time.
(xxviii)	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 protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.	Complied Separate funds are allocated for the implementation of environmental protection measures. The year-wise expenditure is regularly reported to SPCB. (Annexure-XIV).
(xxix)	The project authority 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.	Complied
(xxx)	Full cooperation shall be extended to the Scientists/Officers from the Ministry/ Regional Office of the Ministry at Bhopal / the CPCB/the SPCB who would be monitoring the compliance of environmental status.	Complied CSTPS, Chandrapur, provides full cooperation to the Scientists/Officers from the statutory bodies for monitoring the compliance with environmental status.
Conditions as per EC letter No. J- 13011/53/2008-IA.II(T) dated 31.03.2016		
(xxxi)	The action plan formulated by CPCB and SPCB for the Critically Polluted Area (CPA) of Chandrapur shall be strictly	Complied The CEPI (Comprehensive Environment Pollution Index) score is the combined score of

	compiled.	air, surface water and ground water pollution index. CSTPS is regularly carried out Manual AAQ monitoring including PM ₁₀ and PM _{2.5} in and around the CSTPS by the Third Party MoEF&CC Accredited and NABL accredited Lab, the results are well within the prescribed NAAQS Standards. It is pertinent to note that there is decreasing trends in Chandrapur's CEPI score, which shows that the pollution in Chandrapur industrial clusters has reduced in the last seven years. Approximately 20.54 % decrease in CEPI score is observed from 76.41 (CPCB CEPI score) in 2018 to 60.72 in June 2025, reflecting overall environmental improvement through the collective efforts of regulatory authorities and industries in the region. (Source: MPCB CEPI Report April -June 2025)
(xxxii)	The standards stipulated by the Ministry vide Notification dated 07.12.2015 for Thermal Power Plants shall be duly compiled.	Being Complied CSTPS, Chandrapur compiles all the standards stipulated by the Ministry vide Notification dated 07.12.2015 & amended notification dated 11.07.2025. The review of the applicability of SO ₂ standards for Category B Thermal Power Plants is in progress.
(xxxiii)	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.	Complied CSTPS operates a 5 MW solar plant and has additional ground-mounted projects. The status of the proposed project is as follows: • 65 MW Lakhmapur solar project: Civil work at 95%, electrical & mechanical at 80%. • 145 MW Kachrala & Gunjala projects: Fencing done, tendering ongoing. • 105 MW floating solar at Erai Dam: EPC mode, power under the Ministry of Power's bundling scheme, tendering ongoing.
(xxxiv)	A long term study of radioactivity and heavy metals contents on 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 radioactivity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.	Complied CSTPS is regularly carrying out the radioactivity analysis & heavy metals analysis of Coal, fly ash & bottom ash from the Radioanalytical Laboratory BARC, Mumbai, & M/s. Mahabal Enviro Engineers Pvt. Ltd., respectively. Please see (Annexure-XV).
(xxxv)	Fugitive emission shall be controlled to	Complied

	prevent impact on agricultural or non-agricultural land. In case of any proven damage to agricultural land/ crop, necessary compensation shall be paid by the PP.	CSTPS has provided rain guns in the coal stack yard, a water sprinkler at the wagon tippler, and a transfer point at the coal conveyor belt to control the fugitive dust emission. (Photograph attached) Please see (Annexure-XVI).
(xxxvi)	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.	Complied Surface water samples are collected daily from the plant premises and the plant periphery, & sample is analyzed by a recognized laboratory. The report is attached. (Annexure-XVII).
(xxxvii)	No water bodies including natural drainage system in the area shall be disturbed due to activities associated with setting up / operation of the plant.	Complied CSTPS has adopted a “Zero Liquid Discharge Policy”; all effluent generated is treated in ETP. Treated effluent is reused for ash disposal to the ash bund.
(xxxviii)	No mine void filling will be undertaken as an option for ash utilization without adequate lining of mine with suitable media such that no leachate shall take place at any point of time. In case, the option of mine void filling is to be adopted, prior detailed study of soil characteristics of the mine area shall be undertaken from an institute of repute and adequate clay lining shall be ascertained by the State Pollution Control board and implementation done in close co-ordination with the state Pollution control Board.	Complied No mine void filling is undertaken as an option for ash utilization; However, Ash is utilized for cement/brick manufacturing & road construction purposes.
(xxxix)	Green belt shall also be developed around the ash pond over and above the Green Belt around the plant boundary.	Complied Green belt around ash pond: CSTPS planted 82500 plants in the year 2018-2020 around the ash bund area. CSTPS has carried out tree plantations in and around the power station. The area covered under the green belt is 49.67% of the open area.

(xl)	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.	Being Complied CSTPS, Chandrapur has appointed Project Affected People as a PAPs.
(xli)	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.	Complied CSTPS has formed a CSR committee for proper and periodic monitoring of CSR activities, which comprises the following members at the corporate level: • Chairman and Managing Director • Executive Directors • Directors • Chief Industry Relations Officer
(xlii)	An Environment Cell comprising of at least one expert in environmental science/ engineering, ecology, occupational 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.	Complied A separate environment management cell with qualified staff has already been formed at CSTPS to implement the stipulated Environmental regulations and social impact improvement/mitigation measures.
(xliii)	The project proponent shall formulate a well laid Corporate Environment Policy and identify and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with the conditions stipulated in this clearance letter and other applicable environmental laws and regulations.	Complied CSTPS has established a separate ISO cell to ensure adherence to the environmental management system policy ISO 14001:2015, along with ISO 9001:2015, ISO 45001:2018 & ISO 15001:2018, under the Integrated Management System. Please see (Annexure-XVIII).

Conditions as per EC letter No. J- 13011/53/2008-IA.II (T) dated 15.06.2018

i	Construction of pillars in the water bodies (Rivers & Nallahs) shall be carried out in the dry seasons only.	Complied Construction of pillars in the Erai River water bodies was carried out during the dry seasons & completed in 2020.
ii	Dust suppression system such as mist/dry fog jet sprinklers to be set up at the transfer points to arrest the fugitive dust emissions.	Complied The CSTPS has provided the following dust suppression/dust extraction systems at both ends of the closed pipe conveyor belt system, and they have been found to be operational (Annexure-XIX). Medium velocity spray system (MVSS) 1 . Equipment Belt Conveyor-1 (BC-1) Location- Tail end & Head end side 2. Equipment BC-2 Location- Tail end & Head end side 3. Equipment- Pipe conveyor Location- Tail end & Head end side 4. Equipment- BC-3 Location- Tail end & Head end side 5. Equipment- APron feeder Location- Discharge chute High-velocity spray system (HVSS) Area - wagon loading system 1 . Wagon loading station-(WLS-1) 2. WLS-2 3. WLS-3
iii	For every tree cut along the proposed route in the non-forest area, guidelines of Forest (Conservation) Act, 1980 shall be followed in consultation with the local State Forest department.	Complied
iv	Noise level shall be in accordance with the Noise Pollution Rule.	Complied

ANNEXURE-I**CHANDRAPUR SUPER THERMAL POWER STATION, CHANDRAPUR.**For the period from **January 2026 to June 2026****MONTHLY AVERAGE AMBIENT AIR QUALITY MONITORING REPORT**

Location	Parameters	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26
Location No.1 (Major Store Adm. Bldg.)	PM _{2.5} (µg/M ³) (60)	32.4	31.75	34.75	34.75	29.63	32.25
	PM ₁₀ (µg/M ³)(100)	58.8	60.13	65.75	65.25	62.13	62.88
	SO ₂ (µg/M ³)(80)	32.4	30.93	28.04	27.25	31.18	30.64
	NO _x (µg/M ³)(80)	37.9	34.90	33.89	33.93	35.15	36.41
	Ozone (µg/ M ³)(180)	BDL	BDL	BDL	BDL	BDL	BDL
	Lead (µg/M ³)(1.0)	BDL	BDL	BDL	BDL	BDL	BDL
	CO (mg/ M ³)(4.0)	0.80	0.79	0.78	0.78	0.71	0.73
	NH ₃ (µg/ M ³)(400)	29.5	29.63	29.63	30.13	27.75	30.50
	Benzene (µg/ M ³) (5.0)	BDL	BDL	BDL	BDL	BDL	BDL
	BaP (ng/ M ³)(1.0)	BDL	BDL	BDL	BDL	BDL	BDL
	Arsenic (ng/ M ³)(6.0)	BDL	BDL	BDL	BDL	BDL	BDL
	Nickel (ng/ M ³)(20.0)	BDL	BDL	BDL	BDL	BDL	BDL
Location No.2 (Colony E/M Office)	PM _{2.5} (µg/M ³) (60)	19.3	20.25	20.50	19.63	21.50	19.88
	PM ₁₀ (µg/M ³)(100)	44.3	44.38	47.25	42.50	48.63	44.75
	SO ₂ (µg/M ³)(80)	24.4	25.03	23.41	21.70	23.39	24.20
	NO _x (µg/M ³)(80)	29.6	32.44	29.86	23.85	26.99	29.25
	Ozone (µg/ M ³)(180)	BDL	BDL	BDL	BDL	BDL	BDL
	Lead (µg/M ³)(1.0)	BDL	BDL	BDL	BDL	BDL	BDL
	CO (mg/ M ³)(4.0)	0.60	0.62	0.61	0.61	0.59	0.58
	NH ₃ (µg/ M ³)(400)	23.5	24.00	23.50	22.13	22.50	22.50
	Benzene (µg/ M ³) (5.0)	BDL	BDL	BDL	BDL	BDL	BDL
	BaP (ng/ M ³)(1.0)	BDL	BDL	BDL	BDL	BDL	BDL
	Arsenic (ng/ M ³)(6.0)	BDL	BDL	BDL	BDL	BDL	BDL
	Nickel (ng/ M ³)(20.0)	BDL	BDL	BDL	BDL	BDL	BDL
Location No.3 (Chummery)	PM _{2.5} (µg/M ³) (60)	22.0	22.75	21.50	21.75	22.63	23.13
	PM ₁₀ (µg/M ³)(100)	50.0	46.13	50.63	54.75	51.75	48.50
	SO ₂ (µg/M ³)(80)	25.5	25.24	24.40	24.68	24.25	25.00
	NO _x (µg/M ³)(80)	32.2	30.30	29.65	28.81	28.39	28.63
	Ozone (µg/ M ³)(180)	BDL	BDL	BDL	BDL	BDL	BDL
	Lead (µg/M ³)(1.0)	BDL	BDL	BDL	BDL	BDL	BDL
	CO (mg/ M ³)(4.0)	0.80	0.75	0.73	0.79	0.75	0.74
	NH ₃ (µg/ M ³)(400)	26.5	26.63	24.63	24.50	24.63	26.63
	Benzene (µg/ M ³) (5.0)	BDL	BDL	BDL	BDL	BDL	BDL
	BaP (ng/ M ³)(1.0)	BDL	BDL	BDL	BDL	BDL	BDL
	Arsenic (ng/ M ³)(6.0)	BDL	BDL	BDL	BDL	BDL	BDL
	Nickel (ng/ M ³)(20.0)	BDL	BDL	BDL	BDL	BDL	BDL

Note: - ND = Not Detectable, BDL=Below Detection Limit.**Analysis carried out by the MOEF&CC recognized laboratory i.e., M/s. Mahabal Enviro Engineers Pvt Ltd.**

CHANDRAPUR SUPER THERMAL POWER STATION, CHANDRAPUR.

For the period of January 2026 to June 2026

MONTHLY AVERAGE AMBIENT AIR QUALITY MONITORING REPORT

Location	Parameters	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26
Location No.4 (Railway Cabin U # 8 & 9.)	PM _{2.5} (µg/M ³) (60)	27.00	26.63	25.88	22.88	24.88	25.63
	PM ₁₀ (µg/M ³)(100)	54.63	53.75	56.00	57.63	54.38	57.50
	SO ₂ (µg/M ³)(80)	32.68	29.18	26.94	24.79	28.73	28.53
	NO _x (µg/M ³)(80)	34.89	32.24	29.89	29.80	32.04	34.44
	Ozone (µg/ M ³)(180)	BDL	BDL	BDL	BDL	BDL	BDL
	Lead (µg/M ³)(1.0)	BDL	BDL	BDL	BDL	BDL	BDL
	CO (mg/ M ³)(4.0)	0.63	0.65	0.62	0.67	0.62	0.63
	NH ₃ (µg/ M ³)(400)	25.50	23.50	23.50	24.25	23.50	24.13
	Benzene (µg/ M ³) (5.0)	BDL	BDL	BDL	BDL	BDL	BDL
	BaP (ng/ M ³)(1.0)	BDL	BDL	BDL	BDL	BDL	BDL
	Arsenic (ng/ M ³)(6.0)	BDL	BDL	BDL	BDL	BDL	BDL
	Nickel (ng/ M ³)(20.0)	BDL	BDL	BDL	BDL	BDL	BDL
Location No.5 (ETP U # 8 & 9)	PM _{2.5} (µg/M ³) (60)	34.25	35.38	29.13	26.38	30.63	32.75
	PM ₁₀ (µg/M ³)(100)	63.50	69.00	63.50	61.00	64.38	59.38
	SO ₂ (µg/M ³)(80)	32.14	30.98	26.61	25.64	32.33	30.91
	NO _x (µg/M ³)(80)	38.91	34.81	33.11	31.14	35.7	34.69
	Ozone (µg/ M ³)(180)	BDL	BDL	BDL	BDL	BDL	BDL
	Lead (µg/M ³)(1.0)	BDL	BDL	BDL	BDL	BDL	BDL
	CO (mg/ M ³)(4.0)	0.66	0.69	0.65	0.66	0.59	0.64
	NH ₃ (µg/ M ³)(400)	25.50	25.63	25.38	23.50	23.50	23.50
	Benzene (µg/ M ³) (5.0)	BDL	BDL	BDL	BDL	BDL	BDL
	BaP (ng/ M ³)(1.0)	BDL	BDL	BDL	BDL	BDL	BDL
	Arsenic (ng/ M ³)(6.0)	BDL	BDL	BDL	BDL	BDL	BDL
	Nickel (ng/ M ³)(20.0)	BDL	BDL	BDL	BDL	BDL	BDL

Note: - ND = Not Detectable, BDL=Below Detection Limit.

Analysis carried out by the MOEF&CC recognized laboratory i.e., M/s. Mahabal Enviro Engineers Pvt Ltd.

ANNEXURE-I**CHANDRAPUR SUPER THERMAL POWER STATION, CHANDRAPUR.**For the period of **January 2026 to June 2026****MONTHLY AVERAGE FUGITIVE DUST EMISSION MONITORING REPORT**

Location		Parameters	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26
CHP- A	Crusher House	RSPM ($\mu\text{g}/\text{M}^3$)	116.00	186.50	372.00	786.00	730.50	419.50
		SPM ($\mu\text{g}/\text{M}^3$)	226.00	321.00	713.50	1182.00	1498.50	739.00
		SO ₂ ($\mu\text{g}/\text{M}^3$)	20.00	19.65	22.15	21.45	20.40	20.95
		Nox ($\mu\text{g}/\text{M}^3$)	24.65	24.85	24.80	26.40	24.75	24.45
	L. T. Bunker	RSPM ($\mu\text{g}/\text{M}^3$)	156.00	156.00	149.50	172.50	184.50	189.00
		SPM ($\mu\text{g}/\text{M}^3$)	271.50	400.00	538.00	353.50	434.00	345.00
		SO ₂ ($\mu\text{g}/\text{M}^3$)	21.00	21.35	19.30	18.40	19.35	19.35
		Nox ($\mu\text{g}/\text{M}^3$)	26.90	28.65	24.00	21.90	22.50	22.70
	Wagon Tippler	RSPM ($\mu\text{g}/\text{M}^3$)	222.00	343.00	253.50	351.00	255.00	517.00
		SPM ($\mu\text{g}/\text{M}^3$)	494.00	589.50	472.00	800.50	372.50	1216.00
		SO ₂ ($\mu\text{g}/\text{M}^3$)	22.00	21.95	18.85	18.90	17.80	19.60
		Nox ($\mu\text{g}/\text{M}^3$)	28.20	28.50	23.00	23.05	20.80	22.95
	Coal Stack Yard	RSPM ($\mu\text{g}/\text{M}^3$)	308.50	436.50	97.00	341.00	218.50	235.00
		SPM ($\mu\text{g}/\text{M}^3$)	808.00	660.00	179.00	597.50	352.50	789.50
		SO ₂ ($\mu\text{g}/\text{M}^3$)	22.10	23.05	18.10	21.05	18.40	20.80
		Nox ($\mu\text{g}/\text{M}^3$)	30.35	29.20	21.60	25.00	21.60	23.95
CHP-B	Crusher House	RSPM ($\mu\text{g}/\text{M}^3$)	687.50	666.00	721.00	300.00	700.00	375.00
		SPM ($\mu\text{g}/\text{M}^3$)	1198.50	1245.00	1246.50	592.50	1577.50	579.50
		SO ₂ ($\mu\text{g}/\text{M}^3$)	26.65	22.35	20.30	20.05	22.15	19.70
		Nox ($\mu\text{g}/\text{M}^3$)	33.70	30.30	26.45	23.10	26.45	22.05
	Coal Stack Yard	RSPM ($\mu\text{g}/\text{M}^3$)	1025.00	1231.50	522.50	632.00	719.50	233.50
		SPM ($\mu\text{g}/\text{M}^3$)	1398.50	1700.00	1103.50	1431.00	1346.00	533.50
		SO ₂ ($\mu\text{g}/\text{M}^3$)	31.15	22.55	22.35	22.00	23.10	18.55
		Nox ($\mu\text{g}/\text{M}^3$)	36.30	30.95	26.25	26.90	26.95	22.30
	Wagon Tippler	RSPM ($\mu\text{g}/\text{M}^3$)	673.00	635.50	262.50	1204.00	650.50	379.00
		SPM ($\mu\text{g}/\text{M}^3$)	1378.50	1145.50	628.50	1586.50	1390.00	648.00
		SO ₂ ($\mu\text{g}/\text{M}^3$)	25.00	23.00	18.80	21.40	20.60	19.55
		Nox ($\mu\text{g}/\text{M}^3$)	35.40	27.70	23.30	25.60	24.55	23.90
	T. P. - 103	RSPM ($\mu\text{g}/\text{M}^3$)	554.50	888.00	788.50	241.50	808.50	492.00
		SPM ($\mu\text{g}/\text{M}^3$)	1138.50	1354.50	1538.50	679.00	1498.50	822.50
		SO ₂ ($\mu\text{g}/\text{M}^3$)	26.45	24.30	24.10	18.35	23.40	22.50
		Nox ($\mu\text{g}/\text{M}^3$)	38.20	32.45	28.00	21.90	26.45	24.85

ANNEXURE-I**CHANDRAPUR SUPER THERMAL POWER STATION, CHANDRAPUR.**For the period of **January 2026 to June 2026****MONTHLY AVERAGE FUGITIVE DUST EMISSION MONITORING REPORT**

Location		Parameters	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26
CHP- D (U#8&9)	Wagon Tippler	RSPM ($\mu\text{g}/\text{M}^3$)	344.00	291.00	662.00	825.00	767.00	863.00
		SPM ($\mu\text{g}/\text{M}^3$)	751.00	630.00	1189.00	997.00	963.00	1878.00
		SO ₂ ($\mu\text{g}/\text{M}^3$)	25.50	21.20	23.50	22.40	21.50	22.20
		Nox ($\mu\text{g}/\text{M}^3$)	37.40	31.50	27.60	26.20	23.30	25.60
	T. P. - 105	RSPM ($\mu\text{g}/\text{M}^3$)	190.00	760.00	86.00	199.00	642.00	192.00
		SPM ($\mu\text{g}/\text{M}^3$)	481.00	1154.00	288.00	559.00	929.00	561.00
		SO ₂ ($\mu\text{g}/\text{M}^3$)	22.30	27.40	18.70	20.20	19.50	16.90
		Nox ($\mu\text{g}/\text{M}^3$)	28.50	35.80	24.30	23.40	22.40	20.50
	Crusher House	RSPM ($\mu\text{g}/\text{M}^3$)	425.00	573.00	606.00	120.00	467.00	393.00
		SPM ($\mu\text{g}/\text{M}^3$)	1012.00	934.00	770.00	443.00	921.00	812.00
		SO ₂ ($\mu\text{g}/\text{M}^3$)	27.90	22.20	20.40	15.30	18.50	19.20
		Nox ($\mu\text{g}/\text{M}^3$)	35.40	30.10	25.20	20.70	22.30	23.40
	T. P. - 107	RSPM ($\mu\text{g}/\text{M}^3$)	185.00	522.00	168.00	783.00	626.00	530.00
		SPM ($\mu\text{g}/\text{M}^3$)	304.00	971.00	276.00	1384.00	1160.00	1192.00
		SO ₂ ($\mu\text{g}/\text{M}^3$)	25.60	21.60	17.90	20.20	19.40	17.60
		Nox ($\mu\text{g}/\text{M}^3$)	31.50	28.40	22.50	25.40	24.30	22.10
Closed pipe conveyor belt	Bhatadi	RSPM ($\mu\text{g}/\text{M}^3$)	570.00	1273.00	215.00	363.00	279.00	222.00
		SPM ($\mu\text{g}/\text{M}^3$)	601.00	1403.00	1913.00	772.00	489.00	1057.00
		SO ₂ ($\mu\text{g}/\text{M}^3$)	23.30	24.10	22.30	19.80	20.20	19.50
		Nox ($\mu\text{g}/\text{M}^3$)	32.80	30.50	26.40	23.30	24.40	23.40
	Padmapur	RSPM ($\mu\text{g}/\text{M}^3$)	128.00	98.00	159.00	188.00	350.00	126.00
		SPM ($\mu\text{g}/\text{M}^3$)	154.00	374.00	302.00	450.00	472.00	597.00
		SO ₂ ($\mu\text{g}/\text{M}^3$)	20.70	19.20	16.80	17.20	19.70	18.20
		Nox ($\mu\text{g}/\text{M}^3$)	24.1	25.7	20.2	21.4	22.5	20.7

Note: Analysis carried out by the MOEF&CC recognized laboratory i.e., M/s. Mahabal Enviro Engineers Pvt Ltd.

ANNEXURE II

CHANDRAPUR SUPER THERMAL POWER STATION, CHANDRAPUR GROUND WATER SAMPLE ANALYSIS REPORT

Samples collected on dated:- 05.01.2026 to 07.01.2026

Sample numbers ->	1	2	3	4	5	6	7	UNIT
PHYSICAL PARAMETERS								
Colour	BQL	BQL	BQL	BQL	BQL	BQL	BQL	Hazen
Turbidity	0.4	0.4	0.9	0.2	3.2	0.3	0.4	NTU
CHEMICAL PARAMETERS								
pH	7.6	7.6	7.6	8.0	7.6	7.9	7.5	
Total Dissolved Solids	495	720	1074	1414	585	780	696	mg/L
Total Suspended Solids	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Total Alkalinity	310	324	372	484	348	384	376	mg/L
Phenolphthalein Alkalinity	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as CaCO3
Total Hardness	344	406	616	500	360	372	404	mg/L as CaCO3
Carbonate Hardness	310	324	372	484	348	372	376	mg/L as CaCO3
Calcium	65.7	81.8	152	96.2	81.8	81.0	89.8	mg/L as Ca
Magnesium	43.7	49.1	57.3	63.2	37.9	41.3	43.7	mg/L as Mg
Sodium	46.8	107	143	310	72.7	146	87.6	mg/L as Na
Chlorides	44.0	142	256	400	72.0	68	101	mg/L as Cl
Sulphate	83.2	103	165	155	67.6	164	70.2	mg/L as SO4
Phosphate	0.343	0.046	0.438	0.247	0.279	0.536	0.324	mg/L as PO4
Ammoniacal Nitrogen	0.12	0.13	0.13	0.13	0.13	0.13	0.13	mg/L
Cyanide	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as CN
Fluorides	0.38	0.44	0.45	0.51	0.43	0.53	0.48	mg/L as F
Silica as SiO2	10.2	10.8	26.4	26.9	13.4	18.9	12.3	mg/L as SiO2
Phenolic Compound	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as C6H6OH
Free Ammonia	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
PROBABLE SALT CONCENTRATIONS								
Calcium Carbonate	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Calcium Sulphate	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Calcium Chloride	BQL	BQL	9	BQL	BQL	BQL	BQL	mg/L
Magnesium Carbonate	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Magnesium Sulphate	104	129	206	194	84	204	88	mg/L
Magnesium Chloride	BQL	BQL	35	BQL	BQL	BQL	BQL	mg/L
Sodium Carbonate	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Sodium Sulphate	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Sodium Chloride	68	227	363	655	114	103	162	mg/L
METALS / HEAVY METALS								

ANNEXURE II

Lead	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Pb
Nickel	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Ni
Iron	0.191	0.267	0.135	0.708	0.142	0.337	0.247	mg/L as Fe
Zinc	0.038	0.082	0.057	0.051	0.043	0.048	0.080	mg/L as Zn
Copper	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Cu
Chromium	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Cr
Cadmium	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Cd
Manganese	0.020	0.012	BQL	0.024	BQL	0.013	0.011	mg/L as Mn
Arsenic	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as As
Mercury	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Hg
MICROBIOLOGICAL PARAMETERS								
Total Coliforms	5.1	3.6	5.1	3.6	3.6	6.9	2.2	MPN Index/ 100 ml
Escherichia coli	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	MPN Index/ 100 ml
Total Plate Count	28	34	30	34	36	56	40	CFU/ml

Note: - BQL=Below Quantification Limit.

Analysis carried out by MOEF&CC recognized laboratory i.e. M/s. Mahabal Enviro Engineers Pvt Ltd.

Locations: - (1) Tadali (Borewell)

(5) Morva (Borewell)

(2) Kachrala (BoreWell)

(6) Gunjala (Well)

(3) New Cargaon No. 1 (Borewell)

(7) Saiwan Ghodpeth (Borewell)

(4) New Chargaon No. 2 (Borewell Water)

CHANDRAPUR SUPER THERMAL POWER STATION, CHANDRAPUR

GROUND WATER SAMPLE ANALYSIS REPORT BY

Samples collected on dated:- 05.01.2026 to 07.01.2026

Sample numbers ->	8	9	10	11	12	13	14	UNIT
PHYSICAL PARAMETERS								
Colour	BQL	BQL	BQL	BQL	BQL	BQL	BQL	Hazen
Turbidity	0.4	0.4	0.4	0.6	0.4	0.6	0.5	NTU
PHYSICAL PARAMETER								
pH	7.6	7.7	7.8	7.8	7.7	7.5	7.6	
Total Dissolved Solids	814	1076	1098	738	1201	1144	120	mg/L
Total Suspended Solids	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Total Alkalinity	440	476	468	348	396	384	56	mg/L
Phenolphthalein Alkalinity	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as CaCO ₃
Total Hardness	550	660	690	456	540	564	84	mg/L as CaCO ₃
Carbonate Hardness	440	476	468	348	396	384	56	mg/L as CaCO ₃
Calcium	124	152	156	93	124	146	19.2	mg/L as Ca
Magnesium	58.3	68	72.9	54.4	55.9	48.6	8.8	mg/L as Mg
Sodium	63.6	113	105	78.1	220	188	8.7	mg/L as Na
Chlorides	125	203	209	121	236	285	15	mg/L as Cl
Sulphate	98.4	176	199	135	286	191	26	mg/L as SO ₄
Phosphate	0.373	0.410	0.624	0.286	0.343	0.373	0.743	mg/L as PO ₄
Ammonical Nitrogen	0.12	0.11	0.13	0.14	0.14	0.12	0.15	mg/L
Cyanide	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as CN
Fluorides	0.44	0.48	0.48	0.41	0.51	0.48	0.20	mg/L as F
Silica as SiO ₂	14.2	20.4	21.3	17.5	14.2	25.7	7.4	mg/L as SiO ₂

ANNEXURE II

Phenolic Compound	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as C ₆ H ₆ OH
Free Ammonia	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
PROBABLE SALT CONCENTRATIONS								
Calcium Carbonate	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Calcium Sulphate	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Calcium Chloride	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Magnesium Carbonate	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Magnesium Sulphate	123	220	249	169	276	239	32	mg/L
Magnesium Chloride	4	BQL	39	BQL	BQL	BQL	BQL	mg/L
Sodium Carbonate	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Sodium Sulphate	BQL	BQL	BQL	BQL	96	BQL	BQL	mg/L
Sodium Chloride	162	287	267	181	370	466	22	mg/L
METALS / HEAVY METALS								
Lead	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Pb
Nickel	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Ni
Iron	0.732	0.133	0.154	0.801	0.725	0.230	0.160	mg/L as Fe
Zinc	0.061	0.022	0.046	0.061	0.055	0.081	BQL	mg/L as Zn
Copper	BQL	BQL	BQL	BQL	BQL	BQL	0.011	mg/L as Cu
Chromium	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Cr
Cadmium	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Cd
Manganese	0.024	BQL	BQL	0.026	0.024	BQL	0.028	mg/L as Mn
Arsenic	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as As
Mercury	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Hg
MICROBIOLOGICAL PARAMETERS								
Total Coliforms	2.2	3.6	5.1	3.6	2.2	5.1	17	MPN Index/ 100 ml
Escherichia coli	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	4.5	MPN Index/ 100 ml
Total Plate Count	40	42	38	34	36	42	62	CFU/ml

Note: - BQL=Below Quantification Limit.

Analysis carried out by MOEF&CC recognized laboratory i.e. M/s. Mahabal Enviro Engineers Pvt Ltd.

Locations: - (8) Chhota Nagpur (BoreWell) (12) Kawathi (Bore Well)
 (9) Wichoda (BoreWell) (13) Near Ash Bund Pump House (Borewell) (Gohane Farm)
 (10) Padoli (Borewell) (14) CSTPS One day Reservoir
 (11) Tirwanja (Borewell)

CHANDRAPUR SUPER THERMAL POWER STATION, CHANDRAPUR

GROUND WATER SAMPLE ANALYSIS REPORT

Samples collected on dated:- 13.04.2026 to 14.04.2026

Sample numbers ->	1	2	3	4	5	6	7	UNIT
PHYSICAL PARAMETERS								
Colour	BQL	BQL	BQL	BQL	BQL	BQL	BQL	Hazen
Turbidity	0.2	0.3	0.3	0.2	0.2	0.2	0.2	NTU
CHEMICAL PARAMETERS								
pH	7.6	7.6	7.3	7.4	7.3	7.6	7.2	
Total Dissolved Solids	609	820	1205	1550	545	708	764	mg/L
Total Suspended Solids	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Total Alkalinity	304	368	360	468	370	340	344	mg/L
Phenolphthalein Alkalinity	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as CaCO ₃
Total Hardness	368	472	636	520	390	394	400	mg/L as CaCO ₃
Carbonate Hardness	304	368	360	468	370	340	344	mg/L as CaCO ₃
Calcium	91.4	93	151	109	100	104	89.8	mg/L as Ca
Magnesium	34	58.3	63.2	60.3	34	32.6	42.8	mg/L as Mg
Sodium	64.4	116	170	364	54	104	105	mg/L as Na
Chlorides	56	156	300	450	52	120	110	mg/L as Cl
Sulphate	84	96	149	160	54.1	129	94	mg/L as SO ₄
Phosphate	0.132	0.227	0.323	0.303	0.210	0.227	0.260	mg/L as PO ₄
Ammoniacal Nitrogen	0.13	0.12	0.12	0.13	0.13	0.14	0.15	mg/L
Cyanide	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as CN
Fluorides	0.28	0.36	0.34	0.34	0.22	0.25	0.29	mg/L as F
Silica as SiO ₂	13.2	37.4	21.6	30.8	12.3	13.8	15.2	mg/L as SiO ₂
Phenolic Compound	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as C ₆ H ₆ OH
Free Ammonia	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
PROBABLE SALT CONCENTRATIONS								
Calcium Carbonate	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Calcium Sulphate	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Calcium Chloride	BQL	BQL	18	BQL	BQL	BQL	BQL	mg/L
Magnesium Carbonate	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Magnesium Sulphate	105	120	186	200	68	161	117	mg/L

ANNEXURE II

Magnesium Chloride	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Sodium Carbonate	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Sodium Sulphate	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Sodium Chloride	92	257	432	742	86	125	181	mg/L
METALS / HEAVY METALS								
Lead	BQL	BQL	BQL	BQL	BQL	0.034	BQL	mg/L as Pb
Nickel	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Ni
Iron	0.142	0.286	0.302	0.305	0.123	0.142	0.093	mg/L as Fe
Zinc	0.035	0.029	BQL	0.090	BQL	BQL	BQL	mg/L as Zn
Copper	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Cu
Chromium	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Cr
Cadmium	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Cd
Manganese	BQL	0.030	0.027	0.027	0.020	BQL	BQL	mg/L as Mn
Arsenic	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as As
Mercury	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Hg
MICROBIOLOGICAL PARAMETERS								
Total Coliforms	5.1	3.6	3.6	5.1	2.2	9.2	5.1	MPN Index/ 100 ml
Escherichia coli	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	MPN Index/ 100 ml
Total Plate Count	48	44	40	41	37	54	36	CFU/ml

Note: - BQL=Below Quantification Limit.

Analysis carried out by MOEF&CC recognized laboratory i.e. M/s. Mahabal Enviro Engineers Pvt Ltd.

- | | |
|---|--------------------------------|
| Locations: - (1) Tadali (Borewell) | (5) Morva (Borewell) |
| (2) Kachrala (BoreWell) | (6) Gunjala (Well) |
| (3) New Cargaon No. 1 (Borewell) | (7) Saiwan Ghodpeth (Borewell) |
| (4) New Chargaon No. 2 (Borewell Water) | |

CHANDRAPUR SUPER THERMAL POWER STATION, CHANDRAPUR GROUND WATER SAMPLE ANALYSIS REPORT

Samples collected on dated:- 13.04.2026 to 14.04.2026

Sample numbers ->	8	9	10	11	12	13	14	UNIT
PHYSICAL PARAMETERS								
Colour	BQL	BQL	BQL	BQL	BQL	BQL	BQL	Hazen
Turbidity	0.3	0.3	0.3	0.2	0.3	0.3	2.9	NTU
PHYSICAL PARAMETER								
pH	7.1	7.1	7.6	7.9	7.5	7.4	8.0	
Total Dissolved Solids	922	1050	1028	620	1418	908	138	mg/L
Total Suspended Solids	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Total Alkalinity	368	428	404	260	412	336	78	mg/L
Phenophthalein Alkalinity	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as CaCO ₃
Total Hardness	600	564	612	410	540	436	104	mg/L as CaCO ₃
Carbonate Hardness	368	428	404	260	300	336	78	mg/L as CaCO ₃
Calcium	160	149	133	100	149	120	24.1	mg/L as Ca

ANNEXURE II

Magnesium	48.6	46.7	68	38.9	40.8	33	10.7	mg/L as Mg
Sodium	68	128	96	61.6	300	144	7.1	mg/L as Na
Chlorides	182	234	240	128	290	170	17	mg/L as Cl
Sulphate	117	91.6	109	90	330	180	12.3	mg/L as SO ₄
Phosphate	0.187	0.227	0.136	0.237	0.323	0.216	0.481	mg/L as PO ₄
Ammonical Nitrogen	0.12	0.11	0.14	0.13	0.14	0.15	0.24	mg/L
Cyanide	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as CN
Fluorides	0.36	0.35	0.39	0.22	0.37	0.28	0.30	mg/L as F
Silica as SiO ₂	18.2	22.3	22.8	13.2	32.2	18.8	4.28	mg/L as SiO ₂
Phenolic Compound	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as C ₆ H ₆ OH
Free Ammonia	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
PROBABLE SALT CONCENTRATIONS								
Calcium Carbonate	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Calcium Sulphate	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Calcium Chloride	36	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Magnesium Carbonate	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Magnesium Sulphate	146	114	136	112	201	163	15	mg/L
Magnesium Chloride	73	37	90	44	BQL	BQL	8	mg/L
Sodium Carbonate	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L
Sodium Sulphate	BQL	BQL	BQL	BQL	250	73	BQL	mg/L
Sodium Chloride	173	324	244	157	478	280	18	mg/L
METALS / HEAVY METALS								
Lead as Pb	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Pb
Nickel as Ni	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Ni
Iron	0.582	0.100	0.205	0.088	0.125	0.482	0.325	mg/L as Fe
Zinc	0.028	BQL	BQL	BQL	0.022	0.023	0.056	mg/L as Zn
Copper	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Cu
Chromium	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Cr
Cadmium	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Cd
Manganese	0.043	BQL	BQL	BQL	BQL	0.017	0.014	mg/L as Mn
Arsenic	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as As
Mercury	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/L as Hg
MICROBIOLOGICAL PARAMETERS								
Total Coliforms	3.6	2.2	5.1	3.6	3.6	6.9	14	MPN Index/ 100 ml
Escherichia coli	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	4.5	MPN Index/ 100 ml
Total Plate Count	45	40	48	4.4	42	49	26	CFU/ml

Note: - BQL=Below Quantification Limit.

Analysis carried out by MOEF&CC recognized laboratory i.e. M/s. Mahabal Enviro Engineers Pvt Ltd.

Locations: - (8) Chhota Nagpur (BoreWell)

(12) Kawathi (Bore Well)

(9) Wichoda (BoreWell)

(13) Near Ash Bund Pump House (Borewell) (Gohane Farm)

(10) Padoli (Borewell)

(14) CSTPS One day Reservoir

(11) Tirwanja (Borewell)

CHANDRAPUR SUPER THERMAL POWER STATION, CHANDRAPUR SOIL SAMPLE ANALYSIS REPORT

Samples collected on dated:- 05.01.2026 to 06.01.2026

Sample numbers ->	1	2	3	4	5	6	7	UNIT
PARAMETERS								
pH of 10% Suspension	8.3	8.3	7.8	7.8	8.0	8.2	8.3	
Physical Parameters								
Organic Content	0.83	0.53	1.72	0.396	1.39	BQL	1.25	%
Moisture content	3.95	4.85	4.81	4.94	5.34	5.68	3.24	%
Fixed Residue	95.22	94.62	93.47	94.66	93.27	94.03	94.81	%
Chemical Parameters								
Water Leachate								
Chlorides as Cl	88.6	70.8	53.1	53.2	106	70.8	70.8	mg/kg
Fluorides	5.21	9.50	7.81	7.0	6.20	7.60	7.40	mg/kg
Sulphate as SO ₄	39.7	31.1	52.0	58.0	465	39.5	64.4	mg/kg
Chemical Parameters (Acid Leachate)								
Lead as Pb	15.0	8.80	12.7	12.0	13.5	8.70	13.6	mg/kg
Copper as Cu	39.6	27.8	23.4	30.2	25.6	27.9	49.0	mg/kg
Nickel as Ni	34.9	29.3	21.1	26.0	21.2	30.2	35.5	mg/kg
Chromium as Cr	52.2	40.9	27.6	37.1	28.8	40.5	52.9	mg/kg
Zinc as Zn	65.7	30.8	40.3	30.3	46.6	30.8	60.7	mg/kg
Cadmium as Cd	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/kg
Iron as Fe	23994	21344	26312	33098	27057	21623	40273	mg/kg
Specific Parameters								
Water retaining capacity	65.82	62.58	65.5	66.7	61.89	62.56	64.23	%
Kjeldahl Nitrogen as N	768	628	812	676	974	850	811	%
Total Phosphate as PO ₄	385	391	509	393	465	325	402	%
Ion Exchange Capacity								
Calcium as Ca	40.4	39.5	31.2	38.4	28.8	28.8	25.2	m eq/100gm
Magnesium as Mg	12.0	10.0	6.40	10.4	12.0	5.60	7.60	m eq/100gm
Sodium as Na	0.335	1.61	0.250	0.335	0.250	2.92	0.899	m eq/100gm
Potassium as K	0.405	0.255	0.794	0.325	0.835	0.195	0.460	m eq/100gm

Note: - BQL=Below Quantification Limit.

Analysis carried out by MOEF&CC recognized laboratory i.e. M/s. Mahabal Enviro Engineers Pvt Ltd.

Soil samples collected from: -

- | | |
|------------------------------|--------------------|
| 1.Tadali (near Railway line) | 5.Morwa |
| 2.Kachrala | 6. Gunjala |
| 3 Chargaon No.1 | 7. Ghodpeth Saivan |
| 4.Datala Pump House | |

CHANDRAPUR SUPER THERMAL POWER STATION, CHANDRAPUR SOIL SAMPLE ANALYSIS REPORT

Samples collected on dated:- 05.01.2026 to 06.01.2026

Sample numbers ->	8	9	10	11	12	13	14	UNIT
PARAMETERS								
pH of 10% Suspension	7.8	8.1	7.7	8.1	8.2	8.0	7.2	
Physical Parameters								
Organic Content	0.92	1.05	1.02	0.496	1.16	0.396	1.16	%
Moisture content	6.99	2.24	4.18	5.14	1.79	8.31	20.78	%
Fixed Residue	92.09	96.71	94.80	94.36	97.05	91.29	78.06	%
Chemical Parameters								
Water Leachate								
Chlorides as Cl	70.8	88.6	53.2	70.8	106	88.6	70.9	mg/kg
Fluorides	4.30	6.10	7.93	7.80	9.20	5.40	6.10	mg/kg
Sulphate as SO ₄	33.5	38.8	69.3	30.4	62.4	37.9	47.8	mg/kg
Chemical Parameters (Acid Leachate)								
Lead as Pb	9.39	10.2	10.3	11.9	9.70	11.0	9.06	mg/kg
Copper as Cu	19.8	23.0	27.8	29.7	23.2	31.2	24.9	mg/kg
Nickel as Ni	15.8	19.0	26.4	32.6	18.3	30.7	25.1	mg/kg
Chromium as Cr	28.2	28.0	34.5	44.8	26.6	41.63	37.7	mg/kg
Zinc as Zn	31.1	38.1	30.4	33.7	35.7	44.0	26.2	mg/kg
Cadmium as Cd	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/kg
Iron as Fe	26535	26524	32389	36893	33904	37102	32218	mg/kg
Specific Parameters								
Water retaining capacity	64.26	61.40	63.53	68.3	64.17	64.35	64.61	%
Kjeldahl Nitrogen as N	934	698	583	867	948	696	893	%
Total Phosphate as PO ₄	590	403	353	466	491	416	426	%
Ion Exchange Capacity								
Calcium as Ca	26.8	30.8	33.6	32.4	43.2	33.6	31.6	m eq/100gm
Magnesium as Mg	12.8	9.60	6.80	11.6	8.38	7.58	13.6	m eq/100gm
Sodium as Na	0.385	0.350	0.305	0.405	1.57	0.375	0.585	m eq/100gm
Potassium as K	0.335	0.810	0.285	0.335	0.655	0.255	0.305	m eq/100gm

Note: - BQL=Below Quantification Limit.

Analysis carried out by MOEF&CC recognized laboratory i.e. M/s. Mahabal Enviro Engineers Pvt Ltd.

Soil samples collected from: -

8. Chotta Nagpur

9. Wichoda

10. Padoli

11. Tirwanja

12. Kawathi

13. Ash bund area (Outside of Recycling Pump House)

14. CSTPS (Tulas Bagh)

CHANDRAPUR SUPER THERMAL POWER STATION, CHANDRAPUR

SOIL SAMPLE ANALYSIS REPORT

Samples collected on dated:- 13.04.2026 to 14.04.2026

Sample numbers ->	1	2	3	4	5	6	7	UNIT
PARAMETERS								
pH of 10% Suspension	8.3	8.3	7.7	6.9	8.0	7.1	7.3	
Physical Parameters								
Organic Content	0.798	0.886	BQL	1.35	1.62	0.950	BQL	%
Moisture content	4.43	1.40	1.84	2.21	2.16	2.31	3.46	%
Fixed Residue	94.7	97.69	98.06	96.44	96.2	96.74	96.29	%
Chemical Parameters								
Water Leachate								
Chlorides as Cl	70.8	35.4	70.8	70.8	124	70.9	213	mg/kg
Fluoride	3.17	6.16	8.78	8.06	8.91	8.53	8.90	mg/kg
Sulphate as SO4	60.4	40.4	42.6	34.4	94.4	36.2	46.8	mg/kg
Chemical Parameters (Acid Leachate)								
Lead as Pb	13.8	11.8	16.0	16.1	18.2	11.7	18.2	mg/kg
Copper as Cu	112	115	122	99.5	97.4	104	95.8	mg/kg
Nickel as Ni	42.0	31.4	41.6	35.8	24.1	26.5	35.0	mg/kg
Chromium as Cr	44.0	42.5	40.6	34.7	47.1	39.5	41.2	mg/kg
Zinc as Zn	36.3	33.9	21.9	37.7	38.8	36.2	41.4	mg/kg
Cadmium as Cd	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/kg
Iron as Fe	38274	28808	22662	42512	24317	34695	38672	mg/kg
Specific Parameters								
Water retaining capacity	63.2	67.98	66.52	65.2	64.35	66.44	65.51	%
Kjeldahl Nitrogen as N	473	336	472	279	348	994	403	%
Total Phosphate as PO4	337	196	367	194	244	534	281	%
Ion Exchange Capacity								
Calcium as Ca	35.98	35.2	27.95	41.54	19.99	29.96	27.98	m eq/100gm
Magnesium as Mg	16.02	10.0	6.35	11.18	14.8	8.78	7.62	m eq/100gm
Sodium as Na	0.287	0.647	0.271	0.304	0.298	0.417	0.387	m eq/100gm
Potassium as K	0.329	0.322	0.275	0.289	0.272	0.301	0.424	m eq/100gm

Note: - BQL=Below Quantification Limit.

Analysis carried out by MOEF&CC recognized laboratory i.e. M/s. Mahabal Enviro Engineers Pvt Ltd.

Soil samples collected from: -

1.Tadali (near Railway line)

2.Kachrala

3 Chargaon No.1

4.Dataala Pump House

5.Morwa

6. Gunjala

7. Ghodpeth Saivan

CHANDRAPUR SUPER THERMAL POWER STATION, CHANDRAPUR SOIL SAMPLE ANALYSIS REPORT

Samples collected on dated:- 13.04.2026 to 14.04.2026

Sample numbers ->	8	9	10	11	12	13	14	UNIT
PARAMETERS								
pH of 10% Suspension	7.5	7.3	7.7	7.1	7.0	7.8	7.3	
Physical Parameters								
Organic Content	1.50	0.920	0.582	0.700	1.25	1.40	3.00	%
Moisture content	22.3	3.37	8.70	4.60	3.28	2.61	10.34	%
Fixed Residue	95.45	95.71	90.72	64.21	95.47	95.99	86.66	%
Chemical Parameters								
Water Leachate								
Chlorides as Cl	53.2	70.8	70.9	53.1	88.5	53.5	53.2	mg/kg
Fluorides	5.12	8.61	9.32	8.53	8.51	5.82	9.33	mg/kg
Sulphate as SO ₄	53.9	50.2	28.7	29.9	94.9	26.2	29.8	mg/kg
Chemical Parameters (Acid Leachate)								
Lead as Pb	16.00	13.8	11.8	18.2	16.0	13.8	16.20	mg/kg
Copper as Cu	123	112	122	104	99.4	108	101	mg/kg
Nickel as Ni	32.3	40.1	35.3	32.8	32.7	35.5	28.5	mg/kg
Chromium as Cr	45.4	38.7	43.1	43.7	33.0	37.9	34.5	mg/kg
Zinc as Zn	33.7	38.8	33.8	31.1	46.8	41.5	41.2	mg/kg
Cadmium as Cd	BQL	BQL	BQL	BQL	BQL	BQL	BQL	mg/kg
Iron as Fe	34602	25084	32573	46602	33915	40032	24469	mg/kg
Specific Parameters								
Water retaining capacity	66.23	67.91	68.01	64.21	64.10	68.12	64.27	%
Kjeldahl Nitrogen as N	348	558	391	501	625	431	946	%
Total Phosphate as PO ₄	240	187	133	243	429	215	1116	%
Ion Exchange Capacity								
Calcium as Ca	23.17	31.16	35.95	29.56	40.78	23.20	25.96	m eq/100gm
Magnesium as Mg	10.73	13.59	8.78	9.98	10.00	12.80	6.80	m eq/100gm
Sodium as Na	0.371	0.306	0.538	0.297	0.289	0.341	0.253	m eq/100gm
Potassium as K	0.488	0.434	0.422	0.306	0.489	0.270	0.576	m eq/100gm

Note: - BQL=Below Quantification Limit.

Analysis carried out by MOEF&CC recognized laboratory i.e. M/s. Mahabal Enviro Engineers Pvt Ltd.

8. Chotta Nagpur

9. Wichoda

10. Padoli

11. Tirwanja

12. Kawathi

13. Ash bund area (Outside of Recycling Pump House)

14. CSTPS (Tulas Bagh)

CHANDRAPUR SUPER THERMAL POWER STATION, CHANDRAPUR.For the period of **January 2026 to June 2026****MONTHLY AVERAGE EFFLUENT WATER ANALYSIS REPORT**

Month	Location of Samples	Except pH, all parameters are in mg/liters											
		pH	S. S.	O&G	DO	BOD	COD	Phosphate	Free Cl ₂	Copper	Iron	Zinc	Chromium
Jan-26	Boiler B/D	8.1	BQL	BQL	6.2	5.4	20	0.490	BQL	0.012	0.217	0.034	BQL
	C. T. Pond B/D	7.8	BQL	BQL	—	5	18	0.365	BQL	BQL	0.115	BQL	BQL
	Ash bund weir well discharge	8.2	10	BQL	6.1	11	36	0.159	BQL	BQL	0.356	BQL	0.021
	STP Effluent	7.4	BQL	BQL	5.4	10	36	0.432	BQL	BQL	0.028	BQL	7.4
Feb-26	Boiler B/D	8.6	BQL	BQL	6.0	5.4	20	0.492	BQL	BQL	0.135	BQL	BQL
	C. T. Pond B/D	7.3	BQL	BQL	—	2.9	10	0.114	BQL	BQL	0.130	BQL	BQL
	Ash bund weir well discharge	7.6	7	BQL	5.4	11	38	0.056	BQL	0.010	0.409	0.101	BQL
	STP Effluent	7.7	BQL	BQL	6.2	7.2	27	0.339	BQL	BQL	BQL	BQL	7.7
Mar-26	Boiler B/D	7.2	BQL	BQL	6.0	8.3	30	0.326	BQL	BQL	0.194	0.037	BQL
	C. T. Pond B/D	8.2	BQL	BQL	—	5.2	20	0.221	BQL	BQL	0.470	0.022	BQL
	Ash bund weir well discharge	7.9	BQL	BQL	5.5	10	38	0.141	BQL	BQL	0.505	0.038	BQL
	STP Effluent	7.2	BQL	BQL	5.6	6.5	22	0.604	BQL	BQL	BQL	BQL	7.2
Apr-26	Boiler B/D	7.5	BQL	BQL	--	4.3	16	0.817	BQL	BQL	0.056	BQL	BQL
	C. T. Pond B/D	7.6	BQL	BQL	6.3	4.9	19	1.66	BQL	BQL	0.171	0.071	BQL
	Ash bund weir well discharge	7.9	5	BQL	5.8	10	37	0.922	BQL	BQL	0.538	0.031	BQL
	STP Effluent	6.6	BQL	BQL	6.2	9.4	34	0.249	BQL	BQL	0.023	BQL	6.6
May-26	Boiler B/D	8.6	BQL	BQL	--	2.9	12	BQL	BQL	BQL	0.159	0.028	BQL
	C. T. Pond B/D	8.5	BQL	BQL	5.9	4.9	19	0.327	BQL	BQL	0.16	0.023	BQL
	Ash bund weir well discharge	7.8	12	BQL	6.2	6.9	25	0.247	BQL	BQL	0.475	0.035	BQL
	STP Effluent	6.9	BQL	BQL	6.2	6.8	26	0.328	BQL	BQL	BQL	BQL	6.9
Jun-26	Boiler B/D	7.3	BQL	BQL	6.3	4.2	20	0.272	BQL	BQL	0.201	0.020	0.018
	C. T. Pond B/D	7.5	BQL	BQL	—	1.8	13	0.053	BQL	BQL	0.349	0.033	0.012
	Ash bund weir well discharge	7.7	12	BQL	5.7	11	39	0.237	BQL	BQL	0.418	0.029	0.013
	STP Effluent	7.1	6	BQL	6.3	7.5	29	0.278	BQL	BQL	BQL	BQL	7.1

Note: - BQL=Below Quantification Limit.**Analysis carried out by the MOEF&CC recognized laboratory i.e., M/s. Mahabal Enviro Engineers Pvt Ltd.**

ANNEXURE-IV**CHANDRAPUR SUPER THERMAL POWER STATION, CHANDRAPUR.**For the period of **January 2026 to June 2026****NOISE LEVEL MONITORING OF CSTPS, CHANDRAPUR**

Month	Location													
	Time office-I		Time office-II		Power station gate		Major store		E/M colony office		Padmapur conveyor pipe		Bhatadi conveyor pipe	
	Day (dBA)	Night (dBA)	Day (dBA)	Night (dBA)	Day (dBA)	Night (dBA)	Day (dBA)	Night (dBA)	Day (dBA)	Night (dBA)	Day (dBA)	Night (dBA)	Day (dBA)	Night (dBA)
Jan-26	69.2	65.3	68.4	65.9	67.5	64.5	68.7	66.3	51.3	44.7	71.6	68.2	71.2	67.5
Feb-26	68.6	65.5	68.3	65.3	67.1	64.2	68.9	66.6	52.4	44.2	71.3	68.5	71.4	67.8
Mar-26	68.5	65.2	68.7	65.5	67.6	65.2	68.3	66.2	52.5	44.4	71.5	68.7	71.6	68.4
Apr-26	67.3	65.5	67.6	65.1	67.2	64.8	68.9	65.4	52.2	43.5	70.9	68.3	70.4	68.6
May-26	68.3	65.7	67.9	65.5	68.5	64.1	68.2	65.3	52.6	43.3	69.3	66.8	69.9	68.2
Jun-26	68.6	65.2	68.4	65.1	67.9	64.7	68.3	65.8	51.7	44.2	70.2	68.4	69.8	67.5

Analysis carried out by the MOEF&CC recognized laboratory, i.e., M/s. Mahabal Enviro Engineers Pvt Ltd.

- Ambient Air Quality Standards in Respect of Noise, as per the Noise Pollution (Regulation and Control) Rules, 2000**

Area Code	Category of Area	Day Time (dB)	Night Time (dB)
A	Industrial Area	75	70
C	Residential Area	55	45

MAHARASHTRA STATE POWER GENERATION CO. LTD.

Chandrapur Super Thermal Power Station, Chandrapur

Noise Levels at various places at C.S.T.P.S.

Noise Level Measured in decible dB(A)

Sr. No.	Date	Location	Min./Max. Noise Level			Remarks
			Near Machine/ Auxiliary	Near/Outside of Operator's Cabin	In the Operator's Cabin	
1		Turbine Floor				Operators are sitting in Process Control Room (PCR)
	11.02.26	Unit-III	91.7/92.4	88.2/89.6	62.8/63.2	
		Unit-IV	90.8/91.2	86.5/87.1	61.9/62.3	
	11.03.26	Unit-V	91.7/92.3	84.6/85.2	63.3/64.0	
	28.02.26	Unit-VI	92.2/93.4	87.2/88.4	64.5/66.4	
	26.02.26	Unit-VII	90.5/91.7	87.4/88.9	63.9/64.4	
	19.03.26	Unit-VIII	91.4/92.6	85.2/86.7	62.2/63.4	
		Unit-IX	90.2/91.4			
2		Deaerator Floor				
	11.03.26	Unit-III	67.9/68.3	Cabin N/A	Cabin N/A	
		Unit-IV	68.5/69.1	Cabin N/A	Cabin N/A	
	11.03.26	Unit-V	67.4/68.2	Cabin N/A	Cabin N/A	
	28.02.26	Unit-VI	69.3/70.4	Cabin N/A	Cabin N/A	
	28.02.26	Unit-VII	68.7/69.2	Cabin N/A	Cabin N/A	
	19.03.26	Unit-VIII	69.2/70.6	Cabin N/A	Cabin N/A	
		Unit-IX	68.4/69.4	Cabin N/A	Cabin N/A	
3		H. T. Switchgear				H.T. Switchgear Operator sitting in Switchgear Room
	11.02.26	Unit-III 6.6 K.V.	78.2/79.6	73.7/74.0	68.8/69.2	
		Unit-IV 6.6 K.V.	76.5/77.1	71.9/72.5	66.8/67.2	
	11.03.26	Unit-V 11 K.V.	79.8/80.2	70.4/71.1	63.6/68.5	
	28.02.26	Unit-VI 11 K.V.	83.5/86.1	80.7/81.2	70.6/71.4	
	27.02.26	Unit-VII 11 K.V.	67.9/68.2	64.4/65.8	62.8/63.2	
	19.03.26	Unit-VIII 11 K.V.	69.2/70.4	66.4/67.7	63.2/64.5	
		Unit-IX 11 K.V.	73.2/74.5	69.2/70.2	64.2/65.4	
4		Turbine Basement				CPU persons are sitting in SWAS room. sitting in T/B cabin.
	11.02.26	Unit-III	94.8/95.2	90.3/91.7	78.8/79.2	
		Unit-IV	92.0/93.6	89.8/90.2	76.6/77.1	
	11.03.26	Unit-V Near CPU	91.3/92.5	88.6/89.1	72.5/73.5	
		Near MDBFP	90.5/91.2	84.6/85.0	71.6/72.5	
	28.02.26	Unit-VI Near CPU	91.2/92.5	88.4/89.5	78.2/79.5	
		Near MDBFP	88.9/89.5	79.5/80.2	71.4/72.2	
	21.03.26	Unit-VII Near CPU	90.3/91.7	84.3/85.7	70.5/71.8	
		Near MDBFP	91.8/92.4	83.7/84.2	63.3/64.7	
	19.03.26	Unit-VIII Near CPU	90.2/91.4	87.2/86.4	77.2/78.6	
		Near MDBFP	89.4/90.4	86.4/87.6	76.4/77.5	
		Unit-IX Near CPU	91.4/92.6	88.4/89.5	76.4/77.7	
		Near MDBFP	88.5/89.6	85.4/86.4	77.2/78.5	
5		G. T. R. Area				GTR operators are sitting in T/B cabin.
	11.02.26	Unit-III	82.8/83.2	Cabin N/A	Cabin N/A	
		Unit-IV	81.9/82.6	Cabin N/A	Cabin N/A	
	11.03.26	Unit-V	78.4/79.1	Cabin N/A	Cabin N/A	
	28.02.26	Unit-VI	72.5/73.9	Cabin N/A	Cabin N/A	
	27.02.26	Unit-VII	74.3/75.7	Cabin N/A	Cabin N/A	
	19.03.26	Unit-VIII	79.2/80.5	Cabin N/A	Cabin N/A	
		Unit-IX	81.4/82.6	Cabin N/A	Cabin N/A	
6		C. W. Recirculation Pump Area				Unit III to IV operators D. G. set room., Unit V to VII Operators are sitting in Turbine Basement
	11.02.26	Unit-III / IV	97.8/98.2	Cabin N/A	Cabin N/A	
	21.03.26	Unit-V / VI	88.9/90.5	85.3/86.7	75.3/76.5	
	21.03.26	Unit-VII	89.4/90.1	84.7/85.2	76.9/77.2	
	19.03.26	Unit-VIII/IX	90.2/91.6	Cabin N/A	Cabin N/A	

✦ Door of Cabin is not getting properly closed.

MAHARASHTRA STATE POWER GENERATION CO. LTD.

Chandrapur Super Thermal Power Station, Chandrapur

Noise Levels at various places at C.S.T.P.S.

Noise Level Measured in decible dB(A)

Sr. No.	Date	Location	Min./Max. Noise Level			Remarks
			Near Machine/ Auxiliary	Near/Outside of Operator's Cabin	In the Operator's Cabin	
7		Compressor Room				} Common cabin for Stage-II
	04.03.26	Unit-III	98.4/99.6	89.2/90.5	72.2/73.5	
		Unit-IV				
	11.03.26	Unit-V	96.7/97.3	86.4/87.1	71.5/72.2	
	06.03.26	Unit-VI	91.4/92.2	84.7/85.3	69.1/70.4	
	02.03.26	Unit-VII	97.8/98.4	88.6/89.2	70.4/71.3	
	20.03.26	Unit-VIII	92.8/93.2	82.9/83.4	73.9/74.6	
Unit-IX		94.5/95.1	81.7/82.0	72.8/73.2		
8		Drum Level				} Operators sitting in Firing Floor Cabin
	04.03.26	Unit-III	74.2/75.4	70.1/71.9	68.2/69.1	
		Unit-IV	76.4/77.2	71.4/72.6	69.4/70.5	
	11.03.26	Unit-V	77.5/78.1	72.3/73.5	67.5/68.4	
	06.03.26	Unit-VI	74.7/75.3	70.5/71.2	64.7/65.0	
	02.03.26	Unit-VII	78.3/79.1	74.2/75.1	67.3/68.2	
	20.03.26	Unit-VIII	73.8/74.2	Cabin N/A	Cabin N/A	
Unit-IX		75.3/76.1	Cabin N/A	Cabin N/A		
9		Bunker Level				} Common cabin for Stage-II
	04.03.26	Unit-III	84.6/85.1	80.2/81.1	71.4/72.3	
		Unit-IV	88.4/89.0			
	11.03.26	Unit-V	84.3/85.4	78.3/79.6	69.5/70.1	
	06.03.26	Unit-VI	83.6/84.5	78.3/79.1	68.3/69.5	
	02.03.26	Unit-VII	82.4/83.1	80.2/81.1	67.3/68.5	
	20.03.26	Unit-VIII	83.8/84.2	70.5/71.7	63.9/64.4	
Unit-IX		81.9/82.4				
10		Coal Feeder				} Common cabin for Stage-II Unit V to VII Operators sitting in Firing Floor Cabin
	04.03.26	Unit-III	87.4/88.2	81.6/82.4	72.2/73.1	
		Unit-IV	86.7/88.0			
	11.03.26	Unit-V	82.8/83.7	79.7/80.3	71.6/72.3	
	06.03.26	Unit-VI	85.6/86.5	80.4/81.3	66.3/67.5	
	02.03.26	Unit-VII	84.3/85.2	81.2/82.3	68.4/69.3	
	20.03.26	Unit-VIII	82.8/83.2	Cabin N/A	Cabin N/A	
Unit-IX		83.7/84.0	Cabin N/A	Cabin N/A		
11		Firing Floor				
	04.03.26	Unit-III	87.5/89.3	80.4/81.2	72.6/73.5	
		Unit-IV	86.3/84.7	81.5/82.6	70.5/71.4	
	11.03.26	Unit-V	83.7/84.1	80.2/81.5	69.8/70.0	
	06.03.26	Unit-VI	84.7/85.2	82.7/83.1	68.8/69.7	
	02.03.26	Unit-VII	86.3/87.1	81.4/82.3	69.1/70.3	
	20.03.26	Unit-VIII	85.9/86.4	79.3/80.7	72.8/73.2	
Unit-IX		88.2/84.5	80.1/81.6	70.9/71.4		
12		PRDS Area				} Operators sitting in Firing Floor Cabin
	04.03.26	Unit-III	80.4/81.2	78.4/79.5	69.2/70.4	
		Unit-IV	81.7/82.8	79.7/80.2	70.5/71.5	
	11.03.26	Unit-V	84.8/85.6	80.8/81.5	71.7/72.8	
		Unit-VI	83.7/84.0	79.6/80.7	70.8/71.6	
	02.03.26	Unit-VII	82.4/83.6	80.2/81.5	71.4/72.3	
	20.03.26	Unit-VIII	83.8/84.2	Cabin N/A	Cabin N/A	
Unit-IX		82.3/83.1	Cabin N/A	Cabin N/A		

✦ Door of Cabin is not getting properly closed.

MAHARASHTRA STATE POWER GENERATION CO. LTD.

Chandrapur Super Thermal Power Station, Chandrapur

Noise Levels at various places at C.S.T.P.S.

Noise Level Measured in decible dB(A)

Sr. No.	Date	Location	Min./Max. Noise Level			Remarks
			Near Machine/ Auxiliary	Near/Outside of Operator's Cabin	In the Operator's Cabin	
13		PA FAN				PA Fan operators sitting in Boiler Basement Cabin
	25.02.26	Unit-III Near PA Fan	85.4/86.5	79.2/80.2	69.2/70.5	
	25.02.26	Unit-IV Near PA Fan	86.5/87.4	78.4/79.5	70.1/71.4	
	12.03.26	Unit-V Near PA Fan	85.6/86.2	79.2/80.5	71.2/72.6	
	18.02.26	Unit-VI Near PA Fan	84.2/85.1	78.6/79.5	68.5/69.1	
	28.02.26	Unit-VII Near PA Fan	85.4/86.2	79.5/80.3	69.2/70.5	
	21.03.26	Unit-VIII Near PA Fan	85.3/86.6	Cabin N/A	Cabin N/A	
Unit-IX Near PA Fan		86.7/87.2	Cabin N/A	Cabin N/A		
14		FD FAN				F.D. fan operators are sitting in Boiler Basement Cabin
	25.02.26	Unit-III Near FD Fan	84.2/85.4	77.4/78.6	69.2/70.7	
	25.02.26	Unit-IV Near FD Fan	83.5/84.2	76.2/77.5	67.4/68.2	
	12.03.26	Unit-V Near FD Fan	84.2/85.6	75.5/76.6	68.2/69.5	
	18.02.26	Unit-VI Near FD Fan	82.4/83.2	78.6/79.5	68.3/69.1	
	28.02.26	Unit-VII Near FD Fan	85.2/86.5	77.6/78.2	69.4/70.2	
	21.03.26	Unit-VIII Near FD Fan	86.6/87.2	Cabin N/A	Cabin N/A	
Unit-IX Near FD Fan		87.3/88.6	Cabin N/A	Cabin N/A		
15		Coal Mill Area				Coal Mill Operators are sitting in Boiler Basement Cabin
	25.02.26	Unit-III	88.4/89.5	80.2/81.4	70.1/71.5	
	25.02.26	Unit-IV	87.2/88.4	79.4/80.5	68.2/69.4	
	12.03.26	Unit-V	88.5/89.6	80.1/81.2	70.1/71.5	
	18.02.26	Unit-VI	85.3/86.4	79.3/80.5	69.3/70.2	
	28.02.26	Unit-VII	86.4/87.5	78.2/79.3	68.5/69.4	
	21.03.26	Unit-VIII	88.2/89.4	81.3/82.5	70.3/71.5	
Unit-IX		90.2/91.5	80.4/81.7	68.7/69.4		
16		E. S. P.				ESP Operator sitting in Boiler Basement Cabin
	25.02.26	Unit-III (Near ESP Hopper)	81.2/82.4	78.2/79.4	66.7/68.2	
	25.02.26	Unit-IV (Near ESP Hopper)	83.4/84.6	79.2/80.4	67.2/68.6	
	12.03.26	Unit-V (Near ESP Hopper)	85.4/86.6	78.2/79.5	68.2/69.5	
	18.02.26	Unit-VI (Near ESP Hopper)	82.7/83.1	77.6/78.5	65.3/66.4	
	28.02.26	Unit-VII(Near ESP Hopper)	84.5/85.6	78.2/79.4	66.3/67.5	
	21.03.26	Unit-VIII (Near ESP Hopper)	83.2/84.5	81.4/82.6	69.5/70.7	
Unit-IX(Near ESP Hopper)		84.5/85.6				
17		ID Fan				ID Fan Operator(U III - IV) are sitting in Boiler Basement Cabin ID Fan Operator (Unit V to VII) are sitting in ESP control room.
	25.02.26	Unit-III Near ID Fan	87.2/88.5	79.2/80.1	67.2/68.5	
	25.02.26	Unit-IV Near ID Fan	85.4/86.6	78.3/79.4	68.5/69.4	
	12.03.26	Unit-V Near ID Fan	87.2/86.2	79.2/80.1	69.5/70.2	
	18.02.26	Unit-VI Near ID Fan	86.5/87.3	80.5/81.3	66.7/67.2	
	28.02.26	Unit-VII Near ID Fan	85.4/86.5	79.4/80.2	67.5/68.4	
	21.03.26	Unit-VIII Near ID Fan	84.7/85.2	Cabin N/A	Cabin N/A	
Unit-IX Near ID Fan		82.6/83.4	Cabin N/A	Cabin N/A		
18		A. H. P. Area				Operators sitting in AHP Control Room.
	25.02.26	Unit-III	89.5/90.2	80.2/81.6	69.2/70.5	
		Unit-IV				
	12.03.26	Unit-V	87.6/88.2	81.2/82.6	70.4/71.6	
	18.02.26	Unit-VI	88.7/89.0	81.3/82.4	68.3/69.1	
	28.02.26	Unit-VII	89.7/90.5	80.4/81.5	69.4/70.2	
21.03.26	Unit-VIII	88.5/89.2	82.3/83.5	70.4/71.7		
	Unit-IX					

✦ Door of Cabin is not getting properly closed.

MAHARASHTRA STATE POWER GENERATION CO. LTD.

Chandrapur Super Thermal Power Station, Chandrapur

Noise Levels at various places at C.S.T.P.S.

Noise Level Measured in decible dB(A)

Sr. No.	Date	Location	Min./Max. Noise Level			Remarks
			Near Machine/ Auxiliary	Near/Outside of Operator's Cabin	In the Operator's Cabin	
19		Work Shop				
	05.03.26	Stage I & II	81.3/82.8	80.5/81.3	73.2/74.7	
	21.03.26	Stage III	79.2/80.4	73.5/74.2	63.3/64.6	
20		Time Office				
	05.03.26	Stage - I & II	Not Applicable	72.3/73.8	69.4/70.9	
	21.03.26	Stage - III	Not Applicable	69.2/70.5	64.4/65.7	
		Stage - 8 & 9	Not Applicable	Not Applicable	Not Applicable	
21		Oil Handlig Plant				
	14.03.26	1:Stage-II	81.7/82.2	80.3/81.7	72.9/73.3	
	14.03.26	2:Unit No. - 5	82.2/83.5	69.7/70.3	66.5/67.8	
		3:Unit No. - 6	80.3/81.6	67.9/68.4	64.5/65.9	
		4:Unit No. - 7	81.7/82.1	66.9/67.5	63.3/64.7	
	21.03.26	5:DTFA U # 8 & 9	86.3/87.6	74.2/75.4	64.4/65.7	
22		Cooling Tower				
	05.03.26	Unit-III On Tower	82.5/84.7	Not Applicable	Not Applicable	Common Cabin for Stage-I Operators
		Control Room	77.6/78.9	66.4/67.7	66.4/67.9	
		Unit-IV On Tower	79.1/80.5	69.5/70.8	64.7/65.2	
		Control Room	73.3/74.6	70.5/71.9	67.3/68.8	
	12.03.26	Unit-V On Tower	81.4/82.6	71.2/72.6	65.4/66.2	Common Cabin for Stage-II Operators
		Control Room	78.6/79.5	71.3/72.5	65.4/66.2	
	18.03.26	Unit-VI On Tower	77.4/78.7	68.5/69.8	60.3/61.9	Common Cabin for Stage-III Operators
		Control Room	75.2/76.5	66.1/67.6	63.5/64.9	
	27.03.26	Unit-VII On Tower	80.5/81.2	68.5/69.7	64.3/65.6	Common Cabin for (Unit V & VI) Stage-III Operators
		Control Room	71.7/72.3	67.1/68.4	63.9/64.7	
		Unit-VIII On Tower	81.1/82.5	68.9/69.7	64.9/65.6	
		Control Room	77.3/78.5	66.4/67.8	62.7/63.3	
	27.03.26	Unit-IX On Tower	82.7/83.4	70.3/71.5	66.9/67.5	Operators sitting in Cabin.
		Control Room	80.5/81.6	72.2/73.7	62.3/63.7	
23		Raw Water Pump House				
	18.03.26	1:Stage-I / II	80.3/81.7	73.9/74.4	66.3/67.8	
		2:Stage-III	81.3/82.6	74.4/75.8	67.3/68.6	
24		W. T. Plant - I				
	18.03.26	1:Site Lab.-I	82.3/83.7	65.3/66.7	60.3/61.4	
		2:Site Lab.-II	86.5/87.9	79.4/80.6	66.2/67.5	
	14.03.26	3:General Lab.	80.3/81.6	60.3/61.1	60.7/61.2	
		4:DMP Comp. Room	98.7/99.2	88.1/89.3	72.3/73.1	
		5:DMP Near FWP	61.4/62.7	76.5/77.3	69.8/70.4	
		6:Soft Plant FWP	77.3/78.8	75.1/76.4	67.3/68.5	
		7:DMP C/R	79.1/80.5	77.3/78.2	69.1/70.2	
	14.03.26	8:Gravity F.B. Area	76.9/77.2	73.5/74.3	61.1/62.6	Operators are sitting near gravity sand filter bed.
		9:Near Clarifier	78.4/79.9	70.4/71.1	64.4/65.2	
		10:Hydrogen Plant	75.7/76.1	72.4/73.1	63.2/64.7	
		11:F.W.P. House	78.5/79.1	70.4/71.9	60.1/61.4	
		12:Near Deg. Pump	80.3/81.6	74.5/75.2	64.5/62.2	

✦ Door of Cabin is not getting properly closed.

MAHARASHTRA STATE POWER GENERATION CO. LTD.

Chandrapur Super Thermal Power Station, Chandrapur

Noise Levels at various places at C.S.T.P.S.

Noise Level Measured in decible dB(A)

Noise Level Measured in decible dB(A)							
Sr. No.	Date	Location	Min./Max. Noise Level			Remarks	
			Near Machine/ Auxiliary	Near/Outside of Operator's Cabin	In the Operator's Cabin		
25		W. T. Plant - II					
	05.03.26	1:General Lab.	Not Applicable	69.6/70.3	62.2/63.8		
	05.03.26	2: Precision Lab.	Not Applicable	87.8/88.2	71.5/72.7		
		3:SWAS Room-5&6	Not Applicable	81.8/82.3	72.6/73.9		
	05.03.26	4:SWAS Room-7	98.5/99.8	93.8/99.3	71.1/72.3		
		5:CPU Regn. Area	96.2/97.7	Not Applicable	Not Applicable		
		6:DMP Near FWP	83.6/84.9	Not Applicable	Not Applicable	➔ Door Kept Open	
	16.03.26	7:DMP Compressor	93.8/94.2	87.8/88.2	76.3/77.4		
		8:Near Deg. Pump	85.8/86.2	Cabin N/A	Cabin N/A		
		9:Soft Plant FWP	82.3/83.6	Cabin N/A	Cabin N/A	➔ Door Kept Open	
		10:DMP C/R	67.8/68.2	64.5/65.1	59.8/60.2		
		11:F.W.Pump House	87.8/88.2	Cabin N/A	Cabin N/A		
		12:Gravity F.B. Area	82.9/83.4	67.8/68.2	62.7/63.2		
		13:Near Clarifier	65.6/66.3	Cabin N/A	Cabin N/A		
14:S.D.Pump House		92.1/93.5	68.4/69.8	63.9/64.3	➔ Operators are sitting near gravity sand filter bed.		
26		W. T. Plant - III					
	21.03.26	1:Site Lab.	Not Applicable	71.2/71.4	65.7/66.2		
		2:SWAS Room-8 & 9	81.7/82.3	79.5/80.3	71.2/72.4		
27		Effluent Treatment Plant					
		E.T.P. - I					
	05.03.26	1:Near R W Pump	88.5/89.7	79.8/80.5	60.7/61.3	} Operators are sitting in Control Room.	
		2:Near C W Pump	81.6/82.2				
		E.T.P. - II					
	30.03.26	1:Near R W Pump	84.4/85.6	77.3/78.7	61.9/62.6		
		2:Near C W Pump	82.7/83.5				
		E.T.P. - III					
	30.03.26	1:Near R W Pump	88.2/89.5	79.2/80.5	66.7/67.3		
		2:NearC W Pump	83.3/84.6				
		E.T.P. - IV					
09.04.26	1:Near R W Pump	85.3/86.6	80.1/81.5	63.7/64.2			
	2:NearC W Pump	88.9/89.5					
28		STP					
	09.04.26	Plant - I	64.4/65.5	62.2/63.6	64.7/65.9	} Operators are sitting in Labortory (Plant - I & II)	
		Plant - II	66.3/67.6				
29	14.04.26	C.H.P. Area (Stg. I & II)					
		D.T. Area (Impact Nois	88.4/89.7	81.4/82.6	79.4/80.6		
	14.04.26	D.T. I	85.4/86.6	80.2/81.6	69.4/70.6	} Common cabin for DT - 1 & 2 operators.	
		D.T. II	86.58/87.4				
30		L. T. Bunker	71.4/72.3	68.3/69.1	56.3/57.5		
31		Wagon Tippler					
	09.04.26	W. T. I (Stage I & II)	87.3/88.7	72.4/73.7	65.3/66.8	} Shunting impact noise, while Wagon unloading	
		W. T. II (Stage III)	86.8/87.5	76.5/77.8	68.3/69.2		
	09.04.26	W. T. (U # 8 & 9)	88.7/89.2	78.2/79.5	65.7/66.8		
32		C.H.P. Area (Stg. I & II)					
	30.03.26	1:CHP C/R (SS-1)	79.7/80.5	75.7/76.5	69.6/70.3		
		2:Crusher house	88.8/89.6	82.3/83.6	77.7/78.2		
		3:Middle Floor	90.3/91.7	81.4/82.7	78.6/79.7		
		4:Top Floor	89.7/90.2	88.4/89.8	79.4/80.3		

✦ Door of Cabin is not getting properly closed.

MAHARASHTRA STATE POWER GENERATION CO. LTD.

Chandrapur Super Thermal Power Station, Chandrapur

Noise Levels at various places at C.S.T.P.S.

Noise Level Measured in decible dB(A)

Sr. No.	Date	Location	Min./Max. Noise Level			Remarks
			Near Machine/ Auxiliary	Near/Outside of Operator's Cabin	In the Operator's Cabin	
33		C.H.P. Area (U # 8 & 9)				
	27.03.26	1:CHP C/R	81.3/82.5	78.7/79.5	70.6/71.5	
		2:Crusher house	80.4/81.7	77.3/78.5	72.2/73.6	
		3:Middle Floor	83.7/84.2	79.2/80.4	73.4/74.5	
		4:Top Floor	80.5/81.7	80.6/81.3	69.7/70.4	
34		C.H.P. Area (Stg. I & II)				
	28.03.26	1:J.T. I (Driving End)	88.4/89.1	81.5/82.3	72.7/73.0	
		2:J.T. II	84.3/85.6	80.7/81.5	70.5/71.3	
		3:J.T. III	82.6/83.1	79.4/80.6	73.7/74.1	
		4:J.T. IV	86.3/87.6	80.7/81.5	70.5/71.2	
		5:J.T. I (Tail End)	83.7/84.8	81.3/82.5	71.3/72.7	
		6:J.T. II	87.3/88.0	80.5/81.2	71.3/72.5	
		7:J.T. III	84.4/85.1	81.3/82.6	70.5/71.3	
		8:J.T. IV	88.7/89.2	82.4/83.3	72.3/73.4	
35		C.H.P. Area (Stg. III)				
	30.03.26	1:Track Hopper	87.9/88.7	80.3/81.6	73.4/74.7	
		2:Pedal Feeder1A/2A	86.3/87.5	81.2/82.5	71.8/72.5	
		3:Pedal Feeder1B/2B	84.6/85.8	80.7/81.4	72.1/73.6	
		4:CHP C/R (SS-2)	86.3/87.5	82.6/83.8	70.3/71.8	
		5:CHP Pump House	89.7/90.4	81.7/82.9	70.2/71.5	
		6:Crusher Ist Floor	90.3/91.5	84.2/85.6	73.7/74.4	
		7: 2nd Floor	91.4/92.7	81.7/82.5	72.8/73.5	
		8:Top Floor	88.9/90.2	80.3/81.6	71.9/72.7	
36		Transfer Points				
	31.06.26	1:T.P.-101 (D. E.)	81.6/82.2	79.7/80.3	72.3/73.5	➔ Window Glasses are broken
		2:T.P.-102 (D. E.)	80.3/81.6	78.9/79.2	70.9/71.7	
		3:T.P.-103 (D. E.)	82.7/83.5	78.3/79.5	74.7/75.3	
		4:T.P.-104 (D. E.)	84.5/85.2	78.7/79.4	71.4/72.7	
		5:T.P.-105 (D. E.)	81.7/82.8	79.9/80.6	72.9/73.5	
		6:T.P.-106 (D. E.)	84.5/85.2	80.3/81.7	73.9/74.7	
	04.04.26	7:T.P.-101 (T. E.)	83.7/84.2	80.6/81.4	71.3/72.5	
		8:T.P.-102 (T. E.)	81.9/82.7	79.5/80.3	72.9/73.8	
		9:T.P.-103 (T. E.)	84.3/85.5	82.7/83.9	68.9/69.7	
		10:T.P.-104 (T. E.)	80.6/81.5	79.8/80.5	70.9/71.4	
		11:T.P.-105 (T. E.)	84.2/85.6	82.3/83.6	71.4/72.7	
		12:T.P.-106 (T. E.)	82.1/83.4	81.9/82.4	70.5/71.4	
37		C.H.P. Area (Stg.IV) Unit # 7				
	06.04.26	1) CHP C/R (U # 7)	72.8/73.2	64.2/65.7	60.1/61.4	
		2) Crusher (G. F.)	90.7/91.0	98.8/99.2	95.9/96.5	
		3) Top Floor	95.9/96.3	Cabin N/A	Cabin N/A	
		4) Middle Floor	98.8/99.2	92.8/93.2	75.9/76.5	
		5) Track hopper	85.8/86.2	67.9/68.9	62.8/63.2	
		6) T. P. -111 (D. E.)	75.2/76.6	69.8/70.2	65.4/66.1	
		7) T. P. -112 (D. E.)	74.8/75.2	68.1/69.7	62.8/63.2	
		8) T. P. -111 (T. E.)	80.2/81.6	67.9/68.4	63.7/64.4	
		9) T. P. -112 (T. E.)	78.7/79.5	69.8/70.0	61.9/62.8	

✦ Door of Cabin is not getting properly closed.

MAHARASHTRA STATE POWER GENERATION CO. LTD.

Chandrapur Super Thermal Power Station, Chandrapur

Noise Levels at various places at C.S.T.P.S.

Noise Level Measured in decible dB(A)

38	07.04.26	Transfer Points (U # 8 & 9)				
		1:T.P.-101	82.6/83.4	78.2/79.4	71.1/72.4	
		2:T.P.-102	83.5/84.4	79.2/80.6	72.2/73.5	
		3:T.P.-103	85.2/86.2	78.6/79.5	73.4/74.6	
		4:T.P.-104	81.5/82.5	77.2/78.3	70.1/71.5	
		5:T.P.-105	83.4/84.1	80.1/81.5	72.2/73.5	
		6:T.P.-106	82.5/83.1	78.2/79.4	70.1/71.4	
		7:T.P.-107	86.5/87.6	80.4/81.5	72.2/73.5	
		8:T.P.-108	84.4/85.3	77.2/78.4	71.5/72.6	
		9:T.P.-109	83.5/84.6	79.2/80.4	70.4/71.5	
		10:T.P.-110	85.6/86.4	80.3/81.5	72.2/73.4	
		11:T.P.-111	86.7/87.5	81.2/82.4	71.2/72.4	
		12:T.P.-112	84.2/85.6	79.2/80.4	70.5/71.6	
39		Chlorination Plant				
	21.04.26	Unit-VIII/X	82.1/83.6	78.4/79.2	67.3/68.4	

for Mahabal Enviro Engineers Pvt. Ltd.
KISHOR
CHANDRABHAN
YEOLE

Digitally signed by KISHOR CHANDRABHAN
 YEOLE
 DN: cn=KISHOR CHANDRABHAN YEOLE,
 c=IN, st=Maharashtra, o=PERSONAL,
 title=5650,
 serialNumber=4235f125b14083474202a3a85e5
 be509c4e771f350e8df46dc808bd4335800bb
 Date: 2026.07.08 13:40:52 +05'30'

AUTHORISED SIGNATORY

Sound Pressure Level dB(A)	Exposure Time Hrs./Day
90	8
92	6
95	4
97	3
100	2
102	1 ^{1/2}
105	1
107	3/4
110	1/2
115	1/4

CAUTION: The location at which Noise level is more than 90 dB(A)
 All are requested to use EAR plug or Ear muffs to
 avoid the Hearing Impairment



(A GOVERNMENT OF MAHARASHTRA UNDERTAKING)

CHANDRAPUR SUPER THERMAL POWER STATION

MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED

(ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 & ISO 50001:2018)

Office of: Chief Engineer, C.S.T.P.S. Urjanagar, Chandrapur – 442404

Phone: 07172 - 220155 to 220159 Fax: 07172 - 220203

Email: cegenchandrapur@mahagenco.in

CHN/ENV/Plantation Details

Tree plantation details of CSTPS, Chandrapur Up to June 2026

S. N	Particulars	Details
1	Total factory area	11267.10 Hectare
2	Open Space Available	1117 Hectare
3	Total trees planted up 30 th September 2025.	1330113 Nos.
4	No. of Trees surviving	Above 95%
5	Cumulative area of plantation	554.78 Hectare
6	Land area covered under plantation	49.67 % (Statutory required 33%)

[EXTERNAL] - Re: Regarding Assessment of Impacts of CSTPS & WCL mines located adjacent to Tadoba-Andhari Tiger Reserve (TATR) on wild life & preparation of Management Plan-thereof

From Rajesh Biniwale <rb_biniwale@neeri.res.in>

Date Wed 03-Jun-26 2:07 PM

To envcellcstps <envcellcstps@mahagenco.in>

Cc DIRECTOR NEERI <director@neeri.res.in>; pccfwlngp@mahaforest.gov.in <pccfwlngp@mahaforest.gov.in>; Director (Operations), MSPGCL <directorop@mahagenco.in>; Executive Director (E&S,GP-II) <edens@mahagenco.in>; Executive Director (O&M-2) <edom2@mahagenco.in>; Chief Engineer - Chandrapur TPS <cegenchandrapur@mahagenco.in>; gmenvironment.wcl@coalindia.in <gmenvironment.wcl@coalindia.in>; supchemist <supchemist@mahagenco.in>; BDPM CSIR NEERI <bdpm.neeri@csir.res.in>; Yogesh Pakade <yb_pakade@neeri.res.in>

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Dear Sir,

With reference to your email and scanned letter regarding, "Report on Impact Assessment of Coal mines and Thermal power plant on Wildlife of Tadoba Andhari Tiger Reserve, Chandrapur, Maharashtra". Please note that we have completed all monitoring activities and prepared draft final report. Mean while we have received second installment from CSTPS, however, we have not received second installment from WCL. The submission of the final report was linked to receipt of the second installment from CSTPS and WCL both. However, given the importance of the report we have submitted the draft final report to Principal Chief Conservator of Forest, Wild Life, Nagpur by email today for their comments/suggestion on the report.

Once we receive comments from the PCCF office we will finalize and submit the Final Report on the study.

With best regards,
Rajesh Biniwale

From: envcellcstps <envcellcstps@mahagenco.in>

To: "Director, CSIR-NEERI" <director@neeri.res.in>

Cc: "pccfwlngp@mahaforest.gov.in" <pccfwlngp@mahaforest.gov.in>, "Director (Operations), MSPGCL" <directorop@mahagenco.in>, "Dr. V. M. Motghare" <jdair@mpcb.gov.in>, "Executive Director (E&S, GP-II)" <edens@mahagenco.in>, "Executive Director (O&M-2)" <edom2@mahagenco.in>, "RO Chandrapur" <rochandrapur@mpcb.gov.in>, "Chief Engineer - Chandrapur TPS" <cegenchandrapur@mahagenco.in>, "rb_biniwale@neeri.res.in" <rb_biniwale@neeri.res.in>, "bh@wii.gov.in" <bh@wii.gov.in>, "gmenvironment.wcl@coalindia.in" <gmenvironment.wcl@coalindia.in>, "supchemist" <supchemist@mahagenco.in>

Date: Wed, 27 May 2026 09:17:08 +0530

Subject: Re: Regarding Assessment of Impacts of CSTPS & WCL mines located adjacent to Tadoba-Andhari Tiger Reserve (TATR) on wild life & preparation of Management Plan-thereof

Dear Sir,

Please find attached herewith a letter regarding "Study Report on Impact Assessment of coal mines and thermal power plant on Tadoba Andhari Tiger Reserve, Chandrapur".



MAHAGENCO
Maharashtra State Power Generation Company Limited
CIN: U40104MH2003SGC153648
(A GOVERNMENT OF MAHARASHTRA UNDERTAKING)

CHANDRAPUR SUPER THERMAL POWER STATION
MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED
(ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 & ISO 50001:2018)
Office of: Chief Engineer, C.S.T.P.S. Urjanagar, Chandrapur - 442404
Phone: 07172 - 220155 to 220159 Fax: 07172 - 220203
Email: cegenchandrapur@mahagenco.in

CHN/Env Cell/PO

001127

Date: 23 MAY 2026

To
The Director,
CSIR-NEERI,
Nagpur - 440020.

By Email: director@neeri.res.in

Sub: Study Report on Impact Assessment of coal mines and thermal power plant on Tadoba Andhari Tiger Reserve Chandrapur - Reg.

Ref: 1. This office Letter No. 000906 dated 15.04.2024

2. SAP Purchase Order issued to CSIR-NEERI No. 4500112028 dated 05.11.2020

Dear Sir,

With reference to the subject cited above and directives issued by the MoEF&CC, Government of India, it is submitted that Chandrapur Super Thermal Power Station (CSTPS), Chandrapur, had issued a SAP Purchase Order dated 05.11.2020 to CSIR-NEERI (vide reference at Sr. No. 2) for carrying out the "Study Report on Impact Assessment of coal mines And thermal power plant on Tadoba Andhari Tiger Reserve Chandrapur."

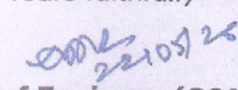
However, it is observed that the progress of the study requires expeditious action to meet the milestones stipulated in the work order.

Further, it is to inform that, as per the invoices submitted by CSIR-NEERI from time to time, the payments have been released by this office accordingly.

In view of the above, you are requested to kindly look into the matter and ensure the early completion of the study, along with the submission of the final report to the concerned authorities on a priority basis.

Thanking You.

Yours faithfully


Chief Engineer (O&M)
CSTPS, Chandrapur

Copy s.w.rs. to:

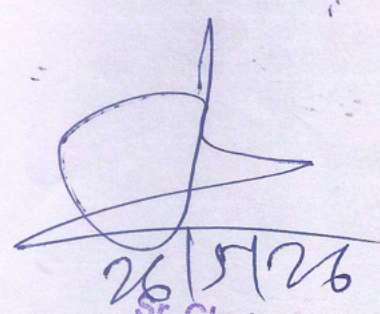
1. The Principal Chief Conservator of Forest (Wildlife), Nagpur
2. The Director (Operations), MSPGCL, Mumbai
3. The Joint Director (APC), MPCB, Mumbai
4. The Executive Director (O&M-II/E&S), MSPGCL, Mumbai.

Copy f.w.cs.to:

1. The Regional Officer, MPCB, Chandrapur
2. Dr. Rajesh Biniwale, CSIR-NEERI, Nagpur
3. Dr. Billal Habib, Wildlife Institute of India (WII), Dehradun.

Copy to:

1. General Manager (Environment), WCL HQ, Nagpur
2. Superintendent Chemist-I, MSPGCL, Mumbai.


Sr. Clerk
Regional Officer
M.P.C. Board,
Chandrapur



MAHAGENCO
Maharashtra State Power Generation Company Limited
CIN: U40100MH12008SGC153648

(A GOVERNMENT OF MAHARASHTRA UNDERTAKING)

CHANDRAPUR SUPER THERMAL POWER STATION
MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED
(ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 & ISO 50001:2018)
Office of: Chief Engineer, C.S.T.P.S. Urjanagar, Chandrapur - 442404
Phone: 07172 - 220155 to 220159 Fax: 07172 - 220203
Email: cegenchandrapur@mahagenco.in

CHN/Env Cell/PO

001128

Date: 23 MAY 2026

To
The Director,
Wildlife Institute of India (WII)
Post Box No. 18, Chandrabani
Dehradun - 248 001

By Email: dwii@wii.gov.in

Sub: Study Report on Impact Assessment of coal mines and thermal power plant on Tadoba Andhari Tiger Reserve Chandrapur- Reg.

Ref: 1. This office Letter No. 000905 dated 15.04.2024
2. SAP Purchase Order issued to CSIR-NEERI No. 4500112028 dated 05.11.2020

Dear Sir,

With reference to the subject cited above and directives issued by MoEF&CC, Government of India, it is submitted that Chandrapur Super Thermal Power Station (CSTPS), Chandrapur had issued a SAP Purchase Order dated 05.11.2020 to the Wildlife Institute of India (WII) (vide reference at Sr. No. 2) for carrying out the "Study Report on Impact Assessment of coal mines And thermal power plant on Tadoba Andhari Tiger Reserve Chandrapur."

However, it is observed that the progress of the study requires expeditious action to meet the milestones stipulated in the work order.

Further, it is to inform that, based on the invoices submitted by WII from time to time, the payments have been released by this office accordingly.

In view of the above, you are requested to kindly look into the matter and ensure the early completion of the study, along with the submission of the final report to the concerned authorities on a priority basis.

Thanking You.

Yours faithfully

Chief Engineer (O&M)
CSTPS, Chandrapur

Copy s.w.rs. to:

1. The Principal Chief Conservator of Forest (Wildlife), Nagpur
2. The Director (Operations), MSPGCL, Mumbai
3. The Joint Director (APC), MPCB, Mumbai
4. The Executive Director (O&M-II/E&S), MSPGCL, Mumbai.

Copy f.w.cs.to:

1. The Regional Officer, MPCB, Chandrapur
2. Dr. Rajesh Biniwale, CSIR-NEERI, Nagpur
3. Dr. Billal Habib, Wildlife Institute of India (WII), Dehradun.

Copy to:

1. General Manager (Environment), WCL HQ, Nagpur
2. Superintendent Chemist-I, MSPGCL, Mumbai.

o/L

26/5/26
Sr. Clerk
Regional Officer
M.P.C. Board,
Chandrapur



MAHAGENCO
Maharashtra State Power Generation Co. Ltd.
CIN: U40100MH2005SGC153648

(A GOVERNMENT OF MAHARASHTRA UNDERTAKING)

CHANDRAPUR SUPER THERMAL POWER STATION
MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED
(ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 & ISO 50001:2018)
Office of: Chief Engineer, C.S.T.P.S. Urjanagar, Chandrapur - 442404
Phone: 07172 - 220155 to 220159 Fax: 07172 - 220203
Email: cegenchandrapur@mahagenco.in

CHN/Env & Coal

000905

Date: 15 APR 2024

To,
The Director,
Wildlife Institute of India
Post Box # 18, Chandrabani
Dehradun 248 001

Email:- dwii@wii.gov.in

Subject: - Regarding Assessment of Impacts of CSTPS & WCL mines located adjacent to Tadoba-Andhari Tiger Reserve (TATR) on Wildlife and preparation of Management Plan-**thereof**

Ref.:- 1) This office letter No.002709 dated 25.10.2023
2) Letter from PCCF (WL), Nagpur No.1700/2020-21 dated 06.11.2020
3) This office SAP Purchase Order on WII No. 4500112033 dated 05.11.2020
4) Letter from PCCF (WL), Nagpur No.2917/2019-20 dated 05.11.2019
5) Visit of CSIR-NEERI, CSTPS & WCL officials at TATR area on dated 24.10.2019
6) Meeting held at CSIR-NEERI, Nagpur on dated 19.10.2019
7) Letter from CGM (E&S), MSPGCL No.10857 dated 11.10.2019

Dear Sir,

With reference to the subject matter & directives from MoEF&CC, Govt. of India, CSTPS Chandrapur has issued SAP Purchase Order dated 05.11.2020 to Wildlife Institute of India vide letter cited at reference 3 above regarding the study of Assessment of Impacts of CSTPS & WCL mines located adjacent to Tadoba-Andhari Tiger Reserve (TATR) on Wildlife.

However, it is observed that the work needs to expedite to achieve the milestones decided in the modalities/work order.

Further, it is to inform that as per invoices submitted by CSIR-NEERI & WII time to time, this office has made the payments accordingly.

In view of above, it is requested to arrange to look into the matter for the successful completion of the study & submission of final report thereof to the appropriate authorities on top priority please.

Thanking you

Yours faithfully

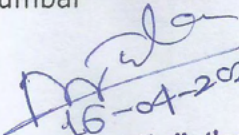

Chief Engineer
CSTPS, Chandrapur

Copy s.w.rs.to:-

- 1) The District Collector, Chandrapur
- 2) The Principal Chief Conservator of Forest (Wild Life), Nagpur
- 3) The Director (Op), MSPGCL, Mumbai
- 4) The Joint Director(APC), MPCB Mumbai
- 5) The Executive Director (O&M-II/E&S) MSPGCL Mumbai

Copy f w.cs.to:-

- 1) The Regional Officer, MPCB Chandrapur
- 2) Dr. Rajesh Biniwale, CSIR-NEERI, Nagpur
- 3) Dr. Billal Habib, WII Dehradun
- 4) The Gen. Manager (Env), WCL HQ Nagpur
- 5) The Supdt. Chemist-I, MSPGCL, Mumbai


16-04-2024
Maharashtra Pollution Control Board
Regional office
Udyog Bhavan 1st Floor Station Road
Chandrapur-442401



भारतीय वन्यजीव संस्थान
Wildlife Institute of India

(An Autonomous Institute under Ministry of Environment, Forest & Climate Change, Govt. of India)
पत्रावेदी सं०/Post Box No. 18, चंदबनी, देहरादून/Chandrabani, Dehradun - 248001, उत्तराखण्ड, भारत/Uttarakhand, INDIA

75
Azadi Ka
Amrit Mahotsav

File No. WII/AE&CB/BH/WL/Minning/Fno.136/2019-01

Dehradun, 20th September, 2024

To

Chief Engineer
Chandrapur Super Thermal Power Station
Chandrapur – 442 404
Email- cegenchandrapur@mahagenco.in

Sub: Clarification and Resubmission of the progress reports for the project titled "Impact assessment of coal mines & thermal power plant on Tadoba Andhari Tiger Reserve Chandrapur" and invoice for the release of 3rd installment- reg.

Ref.

1. CHN/Coal & Env Cell/ 003046 dt. 10.09.2024
2. No. 102/630/2024 dt. 05.06.2024

This is in response to the letter reference above regarding the progress report submission for the project titled " Impact Assessment of Coal Mines & Thermal Power Plant on Tadoba Andhari Tiger Reserve Chandrapur."

We would like to clarify that the earlier communication was specific to the report prepared under the project title, "Understanding the impacts of mining areas of Western Coal Field Limited (WCL) and Chandrapur thermal power plant, Chandrapur on native wildlife." Moving forward, we will ensure that all future correspondence and reports adhere to the project title as per your records to avoid any discrepancies.

Regarding the documents requested, the invoice for the 3rd installment is attached. The Principal Chief Conservator of Forests (Wildlife), Maharashtra, has sent a letter (ref no. 2) to your office regarding the extension of the project until August 2025 and the release of the 3rd installment of the amount of Rs. 33.0975 Lakhs.

For your convenience, we are resubmitting the progress report along with the invoice for the 3rd installment. Please let us know if any further clarification is required.

Thanking You.

Virendra Tiwari
(Virendra Tiwari)
Director
20/9/24

Encls.

1. Assessment of Forest Fragmentation and the Extent of Linear Infrastructure In and around Mining Areas of Western Coalfields Limited and Chandrapur Super Thermal Power Station between 1999 and 2020.
2. Wildlife Across Mining Sites of Western Coalfield Limited and Chandrapur Super Thermal Power Plant.
3. Original Invoice.

Copy to:

1. The Principal Chief Conservator of Forests (Wildlife), Chief Wildlife Warden Maharashtra State, Nagpur, Van Bhawan, Ramgiri Road, Civil Lines, NAGPUR- 440 001 (Maharashtra), E-mail: pccfwingp@mahaforest.gov.in
2. The chief Conservator of Forest (Territorial) Chandrapur. Email: ccfchandrapur@gmail.com
3. The Conservator of Forest and Field Director Tadoba Andhari Tiger Reserve. Email: ccftadoba@mahaforest.gov.in

Coal transportation by railway wagon with tarpaulin covering



Coal transportation by truck wagon with tarpaulin covering



Coal transportation by truck wagon with tarpaulin covering



Water sprinkling on coal transporting belt



ESP:



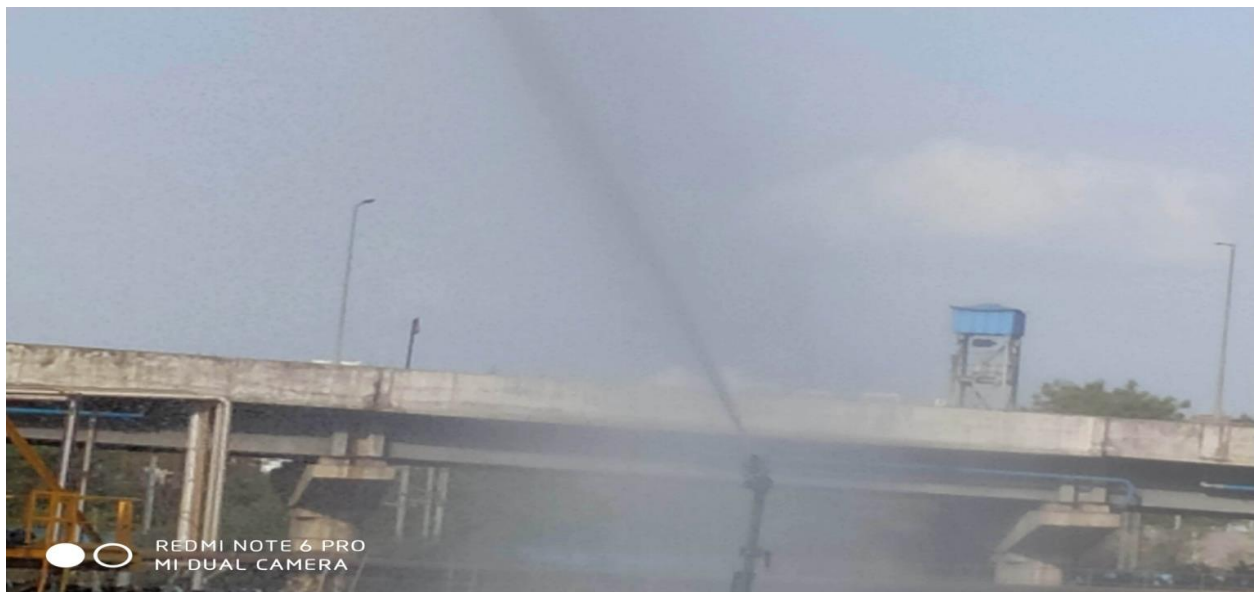
Ammonia Flue Gas Conditioning System (AFGCS)



Water Sprinkler at Coal Conveyor belt:



Rain guns at Coal Stack yard:



Mobile Fogger:



Dust Extraction System at CHP:





ANNEXURE-VIII

CHANDRAPUR SUPER THERMAL POWER STATION, CHANDRAPUR.

For the period of **January 2026 to June 2026**

ASH UTILIZATION OF CSTPS, CHANDRAPUR

Ash Utilization Purpose	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	TOTAL (MT)
Ash Generated (MT)	463044	398447	486427	449672	441199	392200	2630989
For Blending with Cement (ACC, Ambuja, Manikgarh & Ultratech)	152737	137574	163949	111151	111217	123917	800545
Bricks	3917	4420	4605	5409	2613	6089	27053
Agriculture	0	0	0	0	0	0	0
Road / Bridge Construction	0	0	0	0	0	0	0
Land filling	1080	9875	9839	3494	7724	10035	42047
Other	13270	13663	12507	12383	10332.00	9252.00	71407
Ash Utilization (MT)	171004	165532	190900	132437	131886	149292	941051
% Ash Utilisation	36.93%	41.54%	39.25%	29.45%	29.89%	38.07%	35.86%

NOTE: ACC Cement Chandrapur, Ultratech Cement Chandrapur, Ambuja Cement Chandrapur, and Manikgarh Cement Chandrapur have lifted Ash from the ESP Hoppers with arrangements made by them.

ANNEXURE-VIII

Concrete plan for 100% Ash Utilization at CSTPS, Chandrapur.

Action taken are as follows:

1. E-auction:

At CSTPS, Chandrapur approximate 30-32 LMT/year dry fly ash is generated every year. As per MoEF guidelines, for the utilization of dry fly ash e-auction is arranged through MSTC on Dtd 15.03.2023. Various cement companies participated in e-auction and sale order for 9 LMT/year was awarded accordingly to cement companies and agreement signed with following cement companies on mutual agreed terms & conditions.

Short Term Agreement (Through E-auction)- Unit# 8&9			
Name Of Agency	E-auction Agency	Unit allotted to agency	Date Of Agreement
M/s Ambuja Cement Ltd.	Metal Scrap Trade Corporation Ltd. (MSTC Ltd.)	Unit# 8&9	15.03.2023
M/s ACC Ltd.			
M/s UltraTech Cement Ltd. (Manikgarh Unit)			
M/s Dalmia Cement Ltd.			
M/s RCCPL Private Ltd.			

CSTPS will conduct new e-auction through MSTC for 3000MT (9 LMT/year) DFA of Unit- 8&9 with due respect of time.

Fly Ash Lifting (MT/Day):-					
UNIT# 3 TO 7			UNIT# 8 & 9		
Name Of Agency	Date Of Agreement	Allotted Qty. (MT/Day)	Cement Companies	Date Of Agreement	Allotted Qty. (MT/Day)
M/s Adani Cement Group (M/s ACC+ Ambuja)	14.02.2025	4037	M/s Ambuja Cement Ltd.	15.03.2023	666.66
			M/s ACC Ltd.	15.03.2023	300
			M/s UltraTech Cement Ltd. (Manikgarh Unit)	15.03.2023	1283.33
M/s UltraTech Cement Ltd.	01.04.2024	1000	M/s Dalmia Cement Ltd.	15.03.2023	416.66
			M/s RCCPL Private Ltd.	15.03.2023	333.33

2. Long term agreements with cement companies:

Long Term Agreement:- Unit# 3 to 7					
Name of Agency	Unit & Hoppers allotted to Agency		New Commitment in LMT/ Year	Revised Contract period (Years)	Date Of New Agreement
	Phase-I	Phase-II			
M/s ACC Ltd. (Adani)	U6 - 12	U7 - 12	20 LMT/Yr	10 Years	14.02.2025
M/s Ambuja Cement Ltd. (Adani)	U6 - 24	U6 - 18			
	U7 - 20	U7 - 32			
	U3&4 -32	U3&4-48			
M/s UltraTech Cement Ltd. (Awarpur)	U5-18	U5-54	3.65 LMT/Yr	5 Years	01.04.2024
	U6-06	U6-12			

ANNEXURE-VIII

Ash Lifting/Utilization data for last three financial years:-

Fly Ash Lifting/Utilization from Unit- 3 to 7:-

Dry Fly Ash Utilization From Unit- 3 to 7						
F.Y.	Total Ash Generated (MT)	Total Dry Fly Ash Generated (MT)	Dry Fly Ash Lifted (MT)		Total Fly Ash Utilization	% Ash Utilization
			Cement Company (80%)	SSI (20%)		
2023-2024	2892976.79	2025083.75	535228.58	0	535228.58	26.43%
2024-2025	3151308.95	2205916.25	846839.42	0	846839.42	38.39%
2025-2026	2948026.27	2063618.39	898787.49	390	899177.49	43.57%

Fly Ash Lifting/Utilization from Unit- 8&9:

Dry Fly Ash Utilization From Unit- 8 to 9						
F.Y.	Total Ash Generated (MT)	Total Dry Fly Ash Generated (MT)	Dry Fly Ash Lifted (MT)		Total Fly Ash Utilization	% Ash Utilization
			Cement Company (80%)	SSI (20%)		
2023-2024	1999732.68	1399812.88	753913.59	84972.32	838885.91	59.93%
2024-2025	1456139.99	1019297.99	504536.64	82451.10	586987.74	57.59%
2025-2026	1446600.41	1012620.29	530046.93	125594.50	655641.43	64.75%

Fly Ash Lifting/Utilization from Unit- 3 to 9:-

Dry Fly Ash Utilization From Unit- 3 to 9						
F.Y.	Total Ash Generated (MT)	Total Dry Fly Ash Generated (MT)	Dry Fly Ash Lifted (MT)		Total Fly Ash Utilization	% Ash Utilization
			Cement Company (80%)	SSI (20%)		
2023-2024	4892709.47	3424896.63	1289142.17	84972.32	1374114.49	40.12%
2024-2025	4607448.94	3225214.26	1351376.06	82451.10	1433827.16	44.46%
2025-2026	4394626.68	3076238.68	1428834.42	125984.5	1554818.92	50.54%

ANNEXURE-VIII

Bottom Ash/Pond Ash Utilization from Unit- 3 to 9:-

Bottom Ash/Pond Ash/Legacy Ash Utilization From Unit- 3 to 9							
F.Y.	B.A. Generate d in U# 3to7 (MT)	B.A. Generate d in U# 8&9 (MT)	Total B.A. Generate d in U# 3&9 (MT)	Bottom/Pond Ash Lifted By (MT)		Total B.A/Pond Ash Utilization	% Ash Utiliza tion
				MSME	Road Projects (GR Infra)		
2023-24	867893.03	599919.80	1467812.84	48094	0	48094	3.28%
2024-25	945392.68	436841.99	1382234.68	214767.58	342863	557630.58	40.35%
2025-26	884407.88	433980.12	1318388.00	285010.13	0	285010.13	21.62%

Total Ash Utilization from Unit- 3 to 9:-

CSTPS Ash Utilization From Unit- 3 to 9					
F.Y.	Total Ash Generated (MT)	Dry Fly Ash Lifting (MT)	Bottom/P ond Ash Lifting (MT)	Total Ash Lifting (MT)	Total Ash Utilization
	A	B	D	E=B+D	%
2023-24	4892709.47	1374216.00	48094.00	1422310.00	29.07%
2024-25	4607448.93	1433827.16	557630.58	1991457.74	43.22%
2025-26	4394626.68	1554818.92	285010.13	1839829.05	41.87%

➤ **Financial assistance:**

As per Mahagenco policy to enhance Ash utilization financial assistance of Rs. 125/MT is given for lifting and transportation of pond ash by rail / road mode from Chandrapur TPS for road projects undertaken by Govt. Agencies such as NHA, MSRDC, PWD etc. vide letter no. MSPGCL/BM226/Item 226.27 on Dtd. 23.09.2024

Pond Ash Lifting for road projects:-

CSTPS signed agreements with NHA and GR Infraprojects Ltd. on Dtd. 11.10.2024 for the supply of pond ash around 42 LMT for the constructions of road projects with financial assistance. At present around 3.42 LMT pond ash lifted by GR infra.

Name of Agency	Road Projects	Allotted Qty. (LMT)	Date Of Agreement	Agreement Periods (Yrs)
M/s GR infraProject Ltd.	Bamhni	30 LMT	11.10.2024	2 Years
	Govindpur	12 LMT		

ANNEXURE-VIII

- Also, CSTPS signed agreements with NHA and Vidya Infrabuilt Pvt. Ltd. on Dtd. 18.05.2026 for the supply of pond ash around 02 LMT for the constructions of standalone flyover project at Gadchandur.

Name of Agency	Road Projects	Allotted Qty. (LMT)	Date Of Agreement	Agreement Periods (Yrs)
M/s Vidya Infrabuilt Pvt. Ltd..	Gadchandur	02 LMT	18.05.2026	2 Years

- MSRDC** is enquiring availability of pond ash at CSTPS, Chandrapur i.e. approx. 60LMT & 7LMT for Nagpur-Chandrapur Expressway Project and Navegaon-More Surjagad Highway Project respectively.
- M/s Greta Energy Ltd.** is requested for lifting and transportation of approx. 5.50-6.50 LMT pond ash from CSTPS ash bund for greenfield Integrated Steel Plant based on Coal Gasification technology at Bhadravati Major Industrial Area (MIDC), District-Chandrapur.

Financial Assistance for dry fly ash lifting:-

To increase Ash utilization financial assistance of Rs. 120/MT for lifting and transportation of dry fly ash also.

Name of Agency	Allotted Qty. (LMT/Yr)	Date Of Agreement	Agreement Periods (Yrs)	Remarks
M/s Ambuja Cement Ltd. (Adani)	20 LMT/Yr	14.02.2025	10 Years	Financial Assistance Applicable, if 10% pond ash to be lifted

3. Free of cost fly ash and pond ash to MSME customers:

CSTPS provides pond ash and dry fly ash to MSME customers like Bricks, tiles, cement products manufacturer etc. on free of cost which helps to increase ash utilization and create new entrepreneurs.

No. Of SSI Agency for dry fly ash lifting	No. Of Bricks/ Tiles/ Cement Prod. Agency for pond ash lifting	Remarks
22 Agencies	09 Agencies	Order issued to registered agencies for lifting of fly ash & pond ash

4. Advertisement:

To creating awareness and enhance Ash utilization, CSTPS is transmitting the advertisement on All India Radio for 30secs and it will be carried out at time 07:40 am & 08:55 am on daily basis. Accordingly, PR No.-1100179121 is initiated and work order is dispatched after approval of ash budget.

Name of Agency	Advertisement Period	Advertisement Timing
Prasar Bharati, (All India Radio)	30 Sec.	07:40 am & 08:55 am

CHANDRAPUR SUPER THERMAL POWER STATION		
CSTPS	DISASTER MANAGEMENT PLAN	DMP
	PREFACE (UPGRADATION)	Rev. No. : 08
		Date : 05/03/2019
		Page : 1 of 151
With the increasing demand of electricity; more capacity addition is eminent to fulfil the gap. It is also to be noted that more emphasis is given to workman safety and minimum tolerance for pollution; as statutory norms and its enforcement are getting more stringent. To meet the above target, more advanced technologies with higher generation capacity units are adopted, to fulfil the demand as well compliance of statutory norms. But bigger generation capacity units, calls for increases consequence of any accident to multi folds. Also increasing usage of various chemicals, few are toxic; may lead to any severe accident, if proper care is not taken. Even after taking all necessary precautions to prevent any miss-happenings, it is also to be kept in mind, a practical solution for handling any emergency; if it arises. Electricity has become the utmost necessity in civil life. A sudden mass failure of electricity has the ability to stall a nation’s economic activity in a whole or its part thereof. Bringing back to normalcy is a time & effort consuming activity. Northern Grid failure on 31st July, 2012 and subsequent Eastern Grid and North-Eastern Grid failure as the Domino Effect; which stalled the activities of about 22 States and Union Territories, affecting 600 million people; a vivid example. Crisis Management Plan is an afterthought to avert such situation. The Disaster & Crisis Management Plan for Chandrapur Super Thermal Power Station is upgraded to guide our officials and employees for effective handling of any disastrous or crisis situation, with minimum injury and loss of human life, minimum damage to plant and machinery and minimum period for restoration to normalcy.  Jayant H. Bobde Occupier / Chief Engineer (Gen O&M) Chandrapur Super Thermal Power Station		

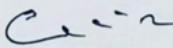
MAHARASHTRA STATE POWER GENERATION CO. LTD.
Chandrapur Super Thermal Power Station
Fire Service Section

TITLE :- Live trial of Medium Velocity Water Spray System Installed for MTFA - 210 MW.							FF: 9328
SECTION : FIRE SERVICE							REV. No. : 01
PERMIT NO: 1083							DATE :-08/03/2003
DATE: June - 2024							PAGE No. : 01
Sr. no	Location	DV.NO	DV inlet Valve	DV Outlet Valve	Drain valve	Test Valve	Remark
1	FO - V	XX	OK	N/A	N/A	N/A	Live Trial has been taken found satisfactory
2	FO - II	XX	OK	OK	N/A	N/A	Live Trial has been taken found satisfactory
3	FO - III	XX	OK	N/A	N/A	N/A	Live Trial has been taken found satisfactory
4	FO- VI	XX	OK	N/A	N/A	N/A	Live Trial has been taken found satisfactory
5	FO - I	XX	OK	OK	N/A	N/A	Live Trial has been taken found satisfactory
6	FO - IV	XX	OK	OK	N/A	N/A	Live Trial has been taken found satisfactory
7	LDO - II	XX	OK	OK	N/A	N/A	Live Trial has been taken found satisfactory
8	LDO - I	XX	OK	OK	N/A	N/A	Live Trial has been taken found satisfactory

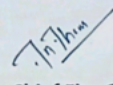
Live Trial Taken in presence of 1) Shri.M. A. Shaikh - Tech. - III (OS - I)

Trial taken Manually by Fire Fighting Staff


Jr. Fire Officer


Ast. Fire Officer


Fire Officer


Dy. Chief Fire Officer

CSTPS

PREVENTIVE MAINTENANCE

MSPGCL

TITLE :- FOAM CHAMBER SYSTEM CHECKING AND TESTING OF MTFA-210MW OIL TANK

FF :-9330

SECTION :-FIRE SERVICE, CSTPS Chandrapur

PERMIT NO.:- 916

R.E.V.NO. :- 01

MONTH OF TESTING :- June -2024

DATE :-08/03/2003

PAGE NO. :- 1

Sr No.	Tank	Date	Permit No.	Foam Chamber No.	Water Inlet Valve	Foam Compound Inlet Valve	Inline Inductor	Foam Chamber	Vapour Seal	Wing Nut	Aeration Point	Remark
1	FO-1 /(MTFA)	12.06.2024	916	-	OK	OK	OK	OK	OK	OK	OK	System Found OK
2	FO-2 /(MTFA)	10.06.2024		-	OK	OK	OK	OK	OK	OK	OK	System Found OK
3	FO-3 /(MTFA)	10.06.2024		-	OK	OK	OK	OK	OK	OK	OK	System Found OK
4	FO-4 /(MTFA)	14.06.2024		-	OK	OK	OK	OK	OK	OK	OK	System Found OK
5	FO-5 /(MTFA)	12.06.2024		-	OK	OK	OK	OK	OK	OK	OK	System Found OK
6	FO-6 /(MTFA)	12.06.2024		-	OK	OK	OK	OK	OK	OK	OK	System Found OK
7	LDO-1 /(MTFA)	14.06.2024		-	OK	OK	OK	OK	OK	OK	OK	System Found OK
8	LDO-2 /(MTFA)	14.06.2024		-	OK	OK	OK	OK	OK	OK	OK	System Found OK

Wing Nut Replaced :-

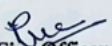
Vapour Seal Repalced :-

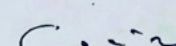
Foam Consumption :- 80 ltr.

Maintenance Team-

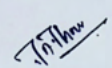
- 1 Shri. P. W. Kore JrFo
- 2 Shri. R. P. Ughade Defeo

Live Trial Taken in presence of : Shri. M. A Sheikh - Tech-III


 Jr. Fire Officer


 Asst. Fire Officer


 Fire Officer


 Section Head



WATK/GENCO
CENTRO CHAMPADILR

**HINDUSTAN PETROLEUM CORPORATION LIMITED****(A Government of India Enterprise)****QUALITY CONTROL LABORATORY**VISAKHA NEW WHITE OIL TERMINAL
HP PETRO PARK, PORT CONNECTIVITY ROAD
VISAKHAPATNAM - 530014, ANDHRA PRADESH**LABORATORY TEST REPORT**

Product	0980000 (HP FUEL (FURNACE OIL))	Test Report Number	1992242500511
Loc/ Customer/ Supplier	3718 (NBOT-BONDED TANKS-PSD)	Sample Number	890000346020
Source of the Sample	BOT TK-208	Lab Sr. No	BFT-387
Tank No.	208 (Tank for FO (A/G)	ULR Number	
Type of the Sample	ALL LEVEL	Date of Sampling	01.08.2024 09:30:00
Number/Quantity of Sample	1*3 L	Date of Receipt of Sample	01.08.2024
Batch No.	FO180/PL/HPC/HTVZB/208/101	Date(s) of Sample Testing	01.08.2024 To 02.08.2024
Stock Represented	4,000,000 KL	Date of Issue of the Report	02.08.2024 09:34:33
Test Required	BATCH FORMATION TEST (TEST B)	Sample Drawn By	GANPATI
Sampling Plan/Method	IS 1447	Seal No.	Wooden Box Seal
Reason for Testing	A/R THRU DEDICATED PL (REF - MKTG)		Aluminium Box Seal

S.No	Characteristics	UOM	Test Method	Specifications	Result
1	DENSITY AT 15°C	kg/m ³	IS 1448 P.16	TO REPORT	951.4
2	DENSITY AT 15°C, TOP	kg/m ³	IS 1448 P.16	TO REPORT	951.4
3	DENSITY AT 15°C, MIDDLE	kg/m ³	IS 1448 P.16	TO REPORT	951.4
4	DENSITY AT 15°C, BOTTOM	kg/m ³	IS 1448 P.16	TO REPORT	951.4
5	FLASH POINT, PMCC	°C	IS 1448 P.21	MIN 66.0	87.5
6	KINEMATIC VISCOSITY AT 50°C	cSt	IS 1448 P.25 SEC 1	125.0000 - 180.0000	167.7
7	WATER CONTENT	% v/v	IS 1448 P.40	MAX 1.00	0.10
8	SULPHUR, TOTAL	% m/m	ISO 8754	MAX 4.000	1.849
9	SEDIMENT	% m/m	IS 1448 P.30	MAX 0.25	0.10
10	POUR POINT	°C	IS 1448 P.10 SEC 2	TO REPORT	-8

Remarks: The Sample meets IS 1593:2018 THIRD REVISION in the above tested parameters only.



HINDUSTAN PETROLEUM CORPORATION LIMITED
(A Government of India Enterprise)
QUALITY CONTROL LABORATORY
VISAKHA NEW WHITE OIL TERMINAL
HP PETRO PARK, PORT CONNECTIVITY ROAD
VISAKHAPATNAM - 530014, ANDHRA PRADESH



LABORATORY TEST REPORT

Product	0984000 (HP INDUSTRIAL DIESEL OIL)	Test Report Number	1992242500596
Loc/ Customer/ Supplier	3718 (NBOT-BONDED TANKS-PSD)	Sample Number	890000414229
Source of the Sample	TERMINAL TANK NO. 104	Lab Sr. No	BFT-442
Tank No.	104 (STORAGE TK 104)	ULR Number	
Type of the Sample	TOP MIDDLE BOTTOM	Date of Sampling	20.08.2024 09:00:00
Number/Quantity of Sample	3*3 L	Date of Receipt of Sample	20.08.2024
Batch No.	LDO/PL/HPC/HTVZB/104/25	Date(s) of Sample Testing	20.08.2024 To 20.08.2024
Stock Represented	2,400.000 KL	Date of Issue of the Report	20.08.2024 19:32:11
Test Required	BATCH FORMATION TEST (TEST B)	Sample Drawn By	RAMAKRISHNA
Sampling Plan/Method	IS 1447	Seal No.	Wooden Box Seal
Reason for Testing	A/R THRU DEDICATED PL (REF - MKTG)		Aluminium Box Seal

S.No	Characteristics	UOM	Test Method	Specifications	Result
1	DENSITY AT 15°C	kg/m³	IS 1448 P.16	TO REPORT	874.2
2	DENSITY AT 15°C, TOP	kg/m³	IS 1448 P.16	TO REPORT	874.0
3	DENSITY AT 15°C, MIDDLE	kg/m³	IS 1448 P.16	TO REPORT	874.1
4	DENSITY AT 15°C, BOTTOM	kg/m³	IS 1448 P.16	TO REPORT	874.2
5	FLASH POINT, PMCC	°C	IS 1448 P.21	MIN 66.0	98.0
6	KINEMATIC VISCOSITY AT 40°C	cSt	IS 1448 P.25 SEC 1	2.5000 - 15.0000	5.112
7	TOTAL SULPHUR	% m/m	ASTM D4294	MAX 1.500	0.264
8	WATER CONTENT	% v/v	IS 1448 P.40	MAX 0.25	0.10
9	POUR POINT, SUMMER	°C	IS 1448 P.10 SEC 2	MAX 21	0

Remarks : The Sample meets IS 15770:2021 FIRST REVISION in the above tested parameters only.

**Corporate Social Responsibility (CSR) Works
2x500 MW Expansion Project MSPGCL Chandrapur
Abstract**

Sr No		Particulars	Works Expenditure	Remarks
1		Total Sanctioned Amount	Rs. 10.00 Cr	
2		Expenditure		
	a	Deposit with PWD for construction of Concrete Road	Rs 7.00 cr	Deposit work.
	b	40 nos of work completed upto date (Annexure A)	Rs 1.94 Cr	Total 46 Nos. of works were approved vide BR No. MSPGCL/BN-71/Item-71.17 , dt. 21.07.2010.
	c	14 nos of work completed upto date (Annexure B)	Rs 1.02 Cr	Work approved vide BR NO MSPGCL/BM- 167/167.6 Dt 15.03.2017 Rs. 0.88 Cr
	d i)	Amount paid to Accident affected Family	Rs 0.02 Cr	Amount paid.
	ii)	Amount paid to Accident affected Family	Rs. 0.02 Cr.	Amount paid.
		Total (a + b+ c + d)	Rs 10.00 Cr	
3		Balance Amount	Nil	

**२X५०० मे.वॅ. विस्तारीत प्रकल्प, स्थापत्य बांधकाम मंडळ, चंद्रपुर
सामाजिक बांधिलकी अंतर्गत मंजूर निधी १०.०० करोड
कामाची यादी.**

परिशिष्ट — अ

अ. क.	कामाचे नाव	कामाची किंमत (लक्ष)	शेरा
१	वॉर्ड न. 6 नेरी ऊर्जांनगर येथे दलित वस्तीत ट्यूबवेल - १ (एक)	1.75	काम पूर्ण झालेले आहे
२	शाळेचे आतील व बाहेरील इमारतीची रंगरंगोटी करणे. (मौजा ऊर्जांनगर/ कोंडी)	1.95	काम पूर्ण झालेले आहे
३	वर्गखोलीत इलेक्ट्रीक साहित्य व पंखे, ट्यूबलाईट लावणे, तथा इलेक्ट्रीकचे किरकोळ कामे (मौजा ऊर्जांनगर/ कोंडी)	0.30	काम पूर्ण झालेले आहे
४	वय वर्ष ३ ते ४ मुलांकरिता फायबर डेस्क व बेंच (मौजा ऊर्जांनगर/ कोंडी)	1.25	काम पूर्ण झालेले आहे
५	मौजा भटाळी ता. जिल्हा - चंद्रपूर येथे नवीन वस्तीत २०० मीटर सिमेंट काँक्रीट रोड करून देणेबाबत	8.40	काम पूर्ण झालेले आहे
६	तुलसी नगर येथे माता मंदीर ते उदार यांचे घरापर्यंत रस्त्याच्या दोन्ही बाजूला नाली बांधकाम - लांबी अंदाजे ६०० मीटर	8.20	काम पूर्ण झालेले आहे
७	मौजा कचरला, पो. घोडपेठ, ता. भद्रावती, जुने बस स्टॉप ते हनुमान मंदीर ते कोल्हे यांचे घरापर्यंत २०० मीटर काँक्रीट रोड	8.70	काम पूर्ण झालेले आहे
८	मौजा कचराळा, पो. घोडपेठ, ता. भद्रावती, जिल्हा परिषद शाळा ते स्मशानभूमी पर्यंत २०० मीटर काँक्रीटचे बांधकाम	8.40	काम पूर्ण झालेले आहे
९	मौजा कचराळा, पो. घोडपेठ, ता. भद्रावती, स्मशानभूमी शेडचे बांधकाम	5.25	काम पूर्ण झालेले आहे
१०	मौजा चोरा येथे सिमेंट काँक्रीट रोड काम	4.50	काम पूर्ण झालेले आहे
११	मौजा गुडगाव (माल) रंगमंचाचे बांधकाम करणे	6.05	काम पूर्ण झालेले आहे
१२	मौजा मोहली येथे सिमेंट काँक्रीट रोडचे काम मंजूर करणे.	4.75	काम पूर्ण झालेले आहे
१३	मौजा पाचगाव (मुसलमान) येथे सिमेंट काँक्रीट रोडचे काम मंजूर करणे.	4.95	काम पूर्ण झालेले आहे
१४	मौजा सावरी येथे सिमेंट काँक्रीट रोडचे काम मंजूर करणे.	4.75	काम पूर्ण झालेले आहे
१५	मौजा मुधोली येथे सिमेंट काँक्रीट रोडचे काम मंजूर करणे.	4.35	काम पूर्ण झालेले आहे
१६	मौजा गुडगाव (तुकूम) येथे सिमेंट काँक्रीट रोडचे काम	3.85	काम पूर्ण झालेले आहे
१७	मौजा वडगाव (गुडगाव) येथे सिमेंट काँक्रीट रोडचे काम	3.95	काम पूर्ण झालेले आहे
१८	चारगाव येथे रस्त्याच्या खडीकरण्याचे काम	7.55	काम पूर्ण झालेले आहे
१९	कटाळी येथे रस्त्याच्या खडीकरण्याचे काम	7.40	काम पूर्ण झालेले आहे
२०	तिखंजा येथे रस्त्याच्या खडीकरण्याचे काम	7.75	काम पूर्ण झालेले आहे
२१	वृंदावन चौक ते बोकडे यांच्या घरापर्यंत अंदाजे ३०० मी. रस्त्याचे खडीकरण करणे.	0.65	काम पूर्ण झालेले आहे
२२	वृंदावन नगर येथील माता मंदिर ते श्री. कोसूरकर यांच्या घरापर्यंत अंदाजे ८० मी. रस्त्याचे खडीकरण करणे.	1.60	काम पूर्ण झालेले आहे
२३	वृंदावन नगर येथील श्री. कोसूरकर, श्री. साव ते श्री. होकर्णे यांच्या घरापर्यंत अंदाजे ४०० मी. रस्त्याचे खडीकरण करणे.	6.70	काम पूर्ण झालेले आहे

अ. क.	कामाचे नाव	कामाची किंमत (लक्ष)	शेरा
२४	वृंदावन नगर येथील श्री. प्रभाकर होकर्णे, श्री. देशभ्रतार ते श्री. पितांबर खोब्रागडे यांच्या घरापर्यंत अंदाजे ६०० मी. रस्त्याचे खडीकरण करणे.	13.05	काम पूर्ण झालेले आहे
२५	वृंदावन नगर येथील श्रीमती. कातकर बाई ते श्री. नामदेवराव आडे यांच्या घरापर्यंत अंदाजे १८० मी. रस्त्याचे खडीकरण करणे.	3.45	काम पूर्ण झालेले आहे
२६	वृंदावन नगर येथील श्री. बलकी ते श्री. ईटेकर यांच्या घरापर्यंत अंदाजे १०० मी. रस्त्याचे खडीकरण करणे.	1.50	काम पूर्ण झालेले आहे
२७	वृंदावन नगर येथील श्री. केमेकर, श्री. राऊत ते माता मंदीर पर्यंत अंदाजे १०० मी. रस्त्याचे खडीकरण करणे.	2.25	काम पूर्ण झालेले आहे
२८	वृंदावन नगर येथील श्री. बाळू गेडाम, श्री. बोरकर ते श्री. मसू शिवरकर यांच्या घरापर्यंत अंदाजे २०० मी. रस्त्याचे खडीकरण करणे.	3.10	काम पूर्ण झालेले आहे
२९	वृंदावन नगर येथील श्री. बोरकर, भारत पेंदान ते चिंचेच्या झाड (धुरा) पर्यंत अंदाजे ३०० मी. रस्त्याचे खडीकरण करणे.	4.45	काम पूर्ण झालेले आहे
३०	वृंदावन नगर येथील चिंचेचा झाड ते श्री. कामातकर यांच्या घरापर्यंत अंदाजे १०० मी. रस्त्याचे खडीकरण करणे.	2.20	काम पूर्ण झालेले आहे
३१	वृंदावन नगर येथील श्री. कामतकर बोथले, ते श्री. गेडाम साहेब (शेवटचा धुरा) पर्यंत अंदाजे १०० मी. रस्त्याचे खडीकरण करणे.	2.10	काम पूर्ण झालेले आहे
३२	वृंदावन नगर येथील श्री. गेडाम साहेब ते सेठिया मॅडमच्या घरापर्यंत अंदाजे २५० मी. रस्त्याचे खडीकरण करणे.	6.45	काम पूर्ण झालेले आहे
३३	वृंदावन नगर येथील श्री. गुरुवाले, ते मूदशीर शेख यांच्या घरापर्यंत अंदाजे ५० मी. रस्त्याचे खडीकरण करणे.	1.00	काम पूर्ण झालेले आहे
३४	वृंदावन नगर येथील श्री. काळमेघ ते श्री. सुरेन्द्र केमेकर यांच्या घरापर्यंत अंदाजे १०० मी. रस्त्याचे खडीकरण करणे.	2.30	काम पूर्ण झालेले आहे
३५	तुलसी नगर येथील श्री. आमले ते श्री. ढवळे यांच्या घरापर्यंत अंदाजे २५० मी. रस्त्याचे खडीकरण करणे.	6.40	काम पूर्ण झालेले आहे
३६	तुलसी नगर येथील सौ. कुसुमताई उदार ते श्री. आसुटकर यांच्या घरापर्यंत अंदाजे १०० मी. रस्त्याचे खडीकरण करणे.	2.15	काम पूर्ण झालेले आहे
३७	राष्ट्रवादी नगर येथील श्री. वाकडे यांच्या घरासमोरील चौकात एक हायमास्क लावणे.	5.60	काम पूर्ण झालेले आहे
३८	राष्ट्रवादी नगर येथे श्री. पिंगे यांच्या घरासमोरील चौकात एक हायमास्क लावणे.	5.75	काम पूर्ण झालेले आहे
३९	तुलसी नगर बोर्ड ते हनुमान मंदीर (छाया पर्णकुटी) पर्यंत रस्त्याचे डांबरीकरण करणे अंदाजे 400 मी.	11.20	काम पूर्ण झालेले आहे
४०	नगीना बाग येथील जगन्नाथ बाबा नगर येथील विविध रस्त्यांच्या बांधकामाकरीता १०,००,०००/- निधी मंजूर करणे.	8.10	काम पूर्ण झालेले आहे
एकुण रक्कम		194.05	

नव्याने मंजुर झालेले कामाची यादी

परिशिष्ट — ब

क्र.	प्रस्तावित कामाचे नाव	कामाची किंमत (लक्ष)	शेरा
१	मौजा — कोंडेगाव (माल) ता. भद्रावती येथील श्री. संदिप सिकराम व श्री. बाळकृष्ण खडसंग यांचे शेताच्या मधील नाल्यावर १ सिमेंट नाला बंधारा व खोलिकरण.	12.80	काम पूर्ण झालेले आहे
२	मौजा — मुधोली, ता. भद्रावती येथील श्री. संभाजी दडमल व श्री. तुळशीराम श्रीरामे यांचे शेताच्या मधील नाल्यावर १ सिमेंट नाला बंधारा व खोलिकरण.	11.90	काम पूर्ण झालेले आहे
३	मौजा — वायगाव तु. येथील श्रीमती. कमलाबाई गायकवाड यांचे दोन्ही शेताच्या मधील नाल्यावर १ सिमेंट नाला बंधारा व खोलिकरण.	12.15	काम पूर्ण झालेले आहे
४	मौजा — वायगाव रै. येथे श्री. कवडु टोंगे ते श्री. नागो वाटेकर यांचे घरापर्यंत कॉन्क्रीट रस्ता.	9.90	काम पूर्ण झालेले आहे
५	सीतारामपेठ क्र.२ येथे श्री. मधुकर कोवे ते श्री. सजीत मंडल अंतर्गत रस्ते.यांचे घरापर्यंत कॉन्क्रीट रस्ता.	7.50	काम पूर्ण झालेले आहे
६	मौजा — मुधोली येथील बेघर वस्ती मध्ये श्री. विठठल पेंदलवार ते लीलाबाई बावणे यांचे घरापर्यंत रस्त्याचे मुरुमकाम व खडीकरण करणेबाबत.	3.45	काम पूर्ण झालेले आहे
७	मौजा विचोडा येथे समाजमंदीराचे बांधकाम करण्याबाबत.	4.75	काम पूर्ण झालेले आहे
८	मौजा कढोली येथे समाजमंदीराचे बांधकाम करण्याबाबत.	4.80	काम पूर्ण झालेले आहे
९	मौजा चिचोली येथे समाजमंदीराचे बांधकाम करण्याबाबत.	4.80	काम पूर्ण झालेले आहे
१०	मौजा मुधोली येथे प्राथमिक आरोग्य केंद्रासाठी डांबरीकरण करणेबाबत.	5.45	काम पूर्ण झालेले आहे
११	मौजा घोडपेठ ता. भद्रावती येथे सिमेंट कॉन्क्रीट रोडचे काम	12.75	काम पूर्ण झालेले आहे
१२	तुळशीनगर चंद्रपुर येथे CSR निधीतुन शितशवपेटी पुरविणे.	1.10	काम पूर्ण झालेले आहे
१३	मौजा चिचोली ता. भद्रावती येथे सिमेंट कॉन्क्रीट रोडचे काम	5.50	काम पूर्ण झालेले आहे
१४	मौजा चंदनखेडा ता. भद्रावती येथे सिमेंट कॉन्क्रीट रोडचे काम	5.10	काम पूर्ण झालेले आहे
एकुण रक्कम		101.95	

1. Introduction

With two units of 210 MW each and five units of 500 MW each Chandrapur Super Thermal Power Station (CSTPS) has the highest capacity of 2920 MW power generation among several power stations of Maharashtra State Power Generation Co. Ltd. CSTPS has reached its present capacity during period May 1984 to March 1998.

CSTPS is located at about 6 Km from the township of Chandrapur. Its north latitude is 19° 57' to 20° 0' and east longitude is 79° 15' to 79° 20'. It is covered by toposhit no. 56M/1 – 14455 P/4-12 published by Survey of India.

Chandrapur is mineral rich district with a dense forest spread over 41.5% of total land. Based on available minerals and abundant water, industries have been set up within and in the surrounding of Chandrapur. CSTPS is located over relatively plain terrain between rivers Erai and Wardha. General slope is township SW from NE. Durgapur, Padmapur, Bhatadi and other coal mines are located towards east of CSTPS and also North-East side. Padmapur & Durgapur are of significance since huge overburden dumps are visible. The mined coal is supplied to Chandrapur Super Thermal Power Station. It has coal linkage to Durgapur open cast coal mine. Coal is transported to CSTPS by rail and aerial ropeway. Urban environmental concerns in the district are air pollution due to coal burning industries and auto-exhaust. Municipal solid waste, bio-medical waste, untreated domestic sewage and also the urban sanitation area other issues of concern.

Topographical feature of core-buffer zones (5Km to 25 Km radius) are given in the **Table 1.1**.

Table 1.1: Topographical feature of core buffer zones

Area 5 Km	Villages	: Durgapur, -Ranvendli, Govindapur, Devai, Padholi, Neri, Kodi, Chandsurla, Mhasala, Shinala etc.
	Surface Drains	: Ranvendli, Motghat, Erai river, Nagpur-Chadrapur
	Others	: Coal mines at Durgapur
10 Km	Villages	: Payali, Matah, Tikhli, Nagpur, Mokha Khutala, Patholi, Kosara, Chora, Devada, Datala, Babupeth (Chadrapur)
	Drains	: As above 5 Km, Erai dam
	Others Features	: Railway and roadway-Nagpur-Chandrapur Road
25 Km	Villages	: Ballarshah, Visapur, Bhivakund, Nandgaon, Huigtala, Bhadrati, Shevni, Marda, Dhamara, Kurla, Jevza, Itapur, Pelora, Nirli, Govapur, Sonoli, Vidsi, Modi, Pipri, Mahaakuli, Anturla, Sindur, Narpala, Wadhri, Savarala, Themur, Sengaon, Tadali, Sakharwahi, Kudara, Ghodpeth, Chargaon, Saivan, Gujala, Avada, Kachrata, Chavandla, Nunara, Ghodmivat, Chincholi, Wadgaon, Savri, Pardi, Devada, Khadala, Chorgaow, limbala, Mamal, Waygaon, etc.
	Drains	: As above and Wardha River
	Others Features	: In addition to above Ballarpur Paper Mills Ltd. and number of coal mines exist within this area.

Chandrapur super thermal power station burns large amount of coal every year which results in generation of ash. This ash is collected as bottom ash and some is arrested by electrostatic precipitator (ESP). The remaining ash escapes through stacks.

Coal burned results in the production of carbon monoxide, particulates, sulphur dioxide, hydrocarbons and oxides of nitrogen. All these pollutants of varying composition are thrown into the atmosphere in the form of gases. Thus the combustion of coal, which forms the major operations in power generation, results in the emissions that comprises of these pollutants in the form of flue gases.

Whenever any concentrated gases are released in to the atmosphere, they mix with air and get diluted. The prevailing winds transport the gases and disperse, thus diluting and reducing the concentration. The ground level concentration of a location is the concentration of particular pollutants at that location. The amount of concentration at a site is cumulative of the stack and other indicated sources. These sources include traffic on the highway and agricultural fields.

2. PROPERTIES OF THE POLLUTANTS

The emissions from the stack are composed of particulates, sulphur dioxide and oxides of nitrogen. The emission contain hydrocarbon & carbon monoxide which arise due to the incomplete combustion of petroleum products. The plant under consideration i.e. CSTPS uses furnace oil only for the initial firing of a boiler and hence emissions such as hydrocarbons are not of much concern.

The particulate matter has physical characteristics like size, mode of formation, setting characteristics and optical properties. They also possess chemical characteristics of organic nature and biological properties as well. Emissions from CSTPS stacks comprises of finally divided non-combustible particles in the flue gas after the combustion of coal. Inherent minerals and metallic substances in coal are normally expected in stack emissions. Once emitted, they will settle depending upon their sizes and tendency for agglomeration.

Optical quality of stack emissions in CSTPS is due to scattering of light. Particles of sizes 0.38 to 0.76 μm diameter would affect the visibility.

2.1 PARTICULATE MATTER:

"Particulate matter," also known as particle pollution or PM, is a complex mixture of extremely small particles and liquid droplets. Particle pollution is made up of a number of components, including acids (such as nitrates and sulphates), organic chemicals, metals, and soil or dust particles. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye. Others are so small they can only be detected using an electron microscope.

Particle pollution includes "inhalable coarse particles," with diameters larger than 2.5 micrometers and smaller than 10 micrometers and "fine particles," with diameters that are 2.5 micrometers and smaller. How small is 2.5 micrometers? Think about a single hair from your head. The average human hair is about 70 micrometers in diameter – making it 30 times larger than the largest fine particle. These particles come in many sizes and shapes and can be made up of hundreds of different chemicals. Some particles, known as primary particles are emitted directly from a source, such as power plant, industries, construction sites, coal handling, unpaved roads, fields, smokestacks or fires. Others form in complicated reactions in the atmosphere of chemicals such as sulphur dioxides and nitrogen oxides that are emitted from power plants, industries and automobiles. These particles, known as secondary particles, make up most of the fine particle pollution in the country.

The size of particles is directly linked to their potential for causing health problems. Small particles less than 10 micrometers in diameter pose the greatest problems, because they can get deep into your lungs, and some may even get into your bloodstream.

Exposure to such particles can affect both your lungs and your heart. Small particles of concern include "inhalable coarse particles" (such as those found near roadways and dusty industries), which are larger than 2.5 micrometers and smaller than 10 micrometers in diameter; and "fine particles" (such as those found in smoke and haze), which are 2.5 micrometers in diameter and smaller.

The Air Act requires EPA to set air quality standards to protect both public health and the public welfare (e.g. visibility, crops and vegetation). Particle pollution affects both.

2.1.1 Health Effects:

Particle pollution - especially fine particles - contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Numerous scientific studies have linked particle pollution exposure to a variety of problems, including:

- premature death in people with heart or lung disease,
- nonfatal heart attacks,
- irregular heartbeat,
- aggravated asthma,
- decreased lung function, and
- Increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing.

People with heart or lung diseases, children and older adults are the most likely to be affected by particle pollution exposure. However, even if you are healthy, you may experience temporary symptoms from exposure to elevated levels of particle pollution.

2.1.2 Environmental Effects:

Visibility impairment

Fine particles (PM_{2.5}) are the main cause of reduced visibility (haze) in parts of the environment, including many of our treasured national parks and wilderness areas.

Environmental damage

Particles can be carried over long distances by wind and then settle on ground or water. The effects of this settling include: making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems.

Aesthetic damage

Particle pollution can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

2.2 SULPHUR DIOXIDES:

Sulphur dioxide (SO₂) is one of a group of highly reactive gasses known as “oxides of sulphur.” The largest sources of SO₂ emissions are from fossil fuel combustion at power plants (73%) and other industrial facilities (20%). Smaller sources of SO₂ emissions include industrial processes such as extracting metal from ore, and the burning of high sulphur containing fuels by locomotives, large ships, and non-road equipment. SO₂ is linked with a number of adverse effects on the respiratory system.

Current scientific evidence links short-term exposures to SO₂, ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects including bronchoconstriction and increased asthma symptoms. These effects are particularly important for asthmatics at elevated ventilation rates (e.g., while exercising or playing.)

Studies also show a connection between short-term exposure and increased visits to emergency departments and hospital admissions for respiratory illnesses, particularly in at-risk populations including children, the elderly, and asthmatics.

National Ambient Air Quality Standard for SO₂ is designed to protect against exposure to the entire group of sulphur oxides (SO_x). SO₂ is the component of greatest concern and is used as the indicator for the larger group of gaseous sulphur oxides (SO_x). Other gaseous sulphur oxides (e.g. SO₃) are found in the atmosphere at concentrations much lower than SO₂.

Emissions that lead to high concentrations of SO₂ generally also lead to the formation of other SO_x. Control measures that reduce SO₂ can generally be expected to reduce people’s exposures to all gaseous SO_x. This may have the important co-benefit of reducing the formation of fine sulphate particles, which pose significant public health threats.

SO_x can react with other compounds in the atmosphere to form small particles. These particles penetrate deeply into sensitive parts of the lungs and can cause or worsen respiratory disease, such as emphysema and bronchitis, and can aggravate existing heart disease, leading to increased hospital admissions and premature death.

As alone the SPM emission is hazardous but the effect of SPM together with Sulphur dioxide has more significance e.g. 200 $\mu\text{g}/\text{m}^3$ of SO_2 (24 hr average) will impair the health of the workers which intern will increase absenteeism. Normally, hairs in the nose remove all SPM over 10 μm . If the sizes vary from 2 to 10 μm then particles are carried from wind pipes to mouth from where they are swallowed. This cause suffocation and aggravation of asthma and chronic bronchitis. This leads to a condition known as “pneumoconiosis”.

2.3 NITROGEN DIOXIDES:

Nitrogen dioxide (NO_2) is one of a group of highly reactive gasses known as "oxides of nitrogen," or "nitrogen oxides (NO_x).” Other nitrogen oxides include nitrous acid and nitric acid. National Ambient Air Quality Standard uses NO_2 as the indicator for the larger group of nitrogen oxides. NO_2 forms quickly from emissions from cars, trucks and buses, power plants, and off-road equipment. In addition to contributing to the formation of ground-level ozone, and fine particle pollution, NO_2 is linked with a number of adverse effects on the respiratory system.

Current scientific evidence links short-term NO_2 exposures, ranging from 30 minutes to 24 hours, with adverse respiratory effects including airway inflammation in healthy people and increased respiratory symptoms in people with asthma.

NO_2 concentrations in vehicles and near roadways are appreciably higher than those measured at monitors in the current network. In fact, in-vehicle concentrations can be 2-3 times higher than measured at nearby area-wide monitors. Near-roadway (within about 50 meters) concentrations of NO_2 have been measured to be approximately 30 to 100% higher than concentrations away from roadways.

NO_2 exposure concentrations near roadways are of particular concern for susceptible individuals, including people with asthma asthmatics, children, and the elderly

The sum of nitric oxide (NO) and NO_2 is commonly called nitrogen oxides or NO_x . Other oxides of nitrogen including nitrous acid and nitric acid are part of the nitrogen oxide family. NO_2 is the component of greatest interest and the indicator for the larger group of nitrogen oxides.

NO_x react with ammonia, moisture, and other compounds to form small particles. These small particles penetrate deeply into sensitive parts of the lungs and can cause or worsen respiratory disease, such as emphysema and bronchitis, and can aggravate existing heart disease, leading to increased hospital admissions and premature death.

Ozone is formed when NO_x and volatile organic compounds react in the presence of heat and sunlight. Children, the elderly, people with lung diseases such as asthma, and people who work or exercise outside are at risk for adverse effects from ozone. These include reduction in lung function and increased respiratory symptoms as well as respiratory-related emergency department visits, hospital admissions, and possibly premature deaths.

Emissions that lead to the formation of NO₂ generally also lead to the formation of other NO_x. Emissions control measures leading to reductions in NO₂ can generally be expected to reduce population exposures to all gaseous NO_x. This may have the important co-benefit of reducing the formation of ozone and fine particles both of which pose significant public health threats.

Table 2.3: Characteristics of some important air pollutants and their effects on human beings and animals

Pollutant	Characteristics	Effects
Particulate matter	Solid particle or liquid droplets including fumes, smoke, dusts. Solid particulate can absorb various chemicals.	Respiratory diseases, toxicity from metallic dusts, silicosis and asbestosis from the specific dusts. Damage of DNA in the lungs.
Oxides of Sulphur (SO _x)	SO _x comprise of SO ₂ (97-99%) & SO ₃ (1-3%). It is colourless, heavy & water soluble gas. Rapidly diffusing, acid forming oxidizing agent. Reacts with water forming sulphuric acid.	Absorbs quickly and irritates the upper respiratory tract. The sulphuric acid formed lowers pH. Leads to bronchial spasms breathlessness and increased susceptibility for infection. Irritation of throat and eyes.
Oxides of Nitrogen (NO _x)	NO _x comprises of NO, NO ₂ & N ₂ O. NO is colourless and slightly soluble in water. NO ₂ can travel in the respiratory systems. It is also involved in the formation of Ozone in the atmosphere.	Forms bonds with haemoglobin and reduce the efficiency of oxygen transport. Respiratory irritation, headache, impairment of lungs, loss of appetite and corrosion of teeth.

3. AIR QUALITY MANAGEMENT

Environmental concerns for large scale of operation of CSTPS make it mandatory to monitor the pollution from power plant on regular basis. Three pollutants are being monitored to meet the statutory requirement of MPCB namely SPM, SO₂ and NO_x. There are two methods for measurement of SPM viz. (i) Settle able particulates by dust fall and (ii) suspended particulates by high volume sampler.

As far as air pollution is concerned, CSTPS is having a very sound air quality management which believes in keeping the atmosphere free from any hazardous emissions from their site. MPCB have laid down limits for the stack emission monitoring at CSTPS of 100 mg/Nm³ for SPM. Whereas, ambient air quality standards prescribed for various zones are given in **Table 3.1**.

To keep a check on the emissions, CSTPS undertaken a routine monitoring of the stacks. They are maintaining monthly reports on all the data regarding the amount of pollutants emitted from the stack.

Regular surveillance is being carried out by CSTPS and records so generated have been used in this report to find out the relation between meteorology and natural purification factors like temperature, lapse rate, stability, pressure, wind speed, direction humidity etc.

Table 3.1: The National Ambient Air Quality Standards (2009) for 24 Hrs Avg

Pollutants	Time Weighted Average	Concentration in Ambient Air		Methods of Measurement
		Industrial, Residential, Rural and other Areas	Ecologically, Sensitive Area (Notified by Central Government)	
Sulphur Dioxide (SO₂), µg/m³	Annual * 24 Hours **	50 80	20 80	- Improved West and Gaeke Method - Ultra violet Fluorescence
Nitrogen Dioxide (NO₂), µg/m³	Annual * 24 Hours **	40 80	30 80	- Jacob & Hochheiser modified (NaOH-NaAsO ₂) Method - Gas Phase Chemiluminescence
Particulate Matter (Size less than 10µm) or PM₁₀, µg/m³	Annual * 24 Hours **	60 100	60 100	- Gravimetric - TEOM - Beta attenuation
Particulate Matter (Size less than 2.5 µm) or PM_{2.5}, µg/m³	Annual * 24 Hours **	40 60	40 60	- Gravimetric - TEOM - Beta attenuation
*Annual Arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals. **24 hourly or 8 hourly or 1 hourly monitored values, as applicable, shall be complied with 98 % of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring. NOTE: Whenever and wherever monitoring results on two consecutive days of monitoring exceed the limits specified above for the respective category, it shall be considered adequate reason to institute regular or continuous monitoring and further investigations.				

Vehicular Emissions:

The total road length in Chandrapur District is 7059 kms, road length within the municipal areas is about 730 kms. As per latest information given by RTO on different types of vehicles (September 2025), there are 635750 vehicles in Chandrapur districts. MSRTC is running the public transport in the district within a fleet of 1124 buses of which approximately 928 buses are in use on a daily basis. The contribution of these buses in the vehicular emissions in Chandrapur has not been estimated so far the based on modified emission factors and the conditions of buses.

The survey conducted by RTO Chandrapur in September-2025 on the traffic load at major roads in the districts. A 24 hr traffic survey carried out on different roads indicated that about 1700 - 2000 vehicles ply on Nagpur-Chandrapur and 400 - 500 vehicles ply on Chandrapur - Tadoba roads per hours. These two routes closely touches the Chandrapur Super Thermal Power Station by two sides. About 1600-1800 vehicles ply in an hour in Chandrapur city. The main pollutants from automobile exhaust are particulate matter, hydrocarbons, carbon monoxide. NO_x and some amount of SO₂.

Coal Handling:

There are several coal deposits on Nagpur-Chandrapur highway. These depots are responsible for the generation of the large coal dust emissions leading to deterioration of air quality due to suspended particulate matter in these areas. On major store gate side of power station, there is a slum area and small villages dependent on the coal as a fuel for their cooking such as Padoli, Durgapur, Lakhmapur etc. The families living in these areas are dependent on coal as a fuel for their cooking.

The coal is easily available in Chandrapur and its surrounding villages as the coal mines are covered this large area. It is generally observed that this coal is used as cheap alternative to the other fuel sources. It is mainly used in the villages nearer the coal mines and also in the slum areas for cooking and for water heating purposes. It is reported that a household using coal uses approximately 7 to 8 kgs per house of coal for domestic purposes. Further it is regularly used by hotels and dhabas on Nagpur-Chandrapur road. This burning

of hard coal is major source of air emission. This is one of the important reason for the appearance of a smog-blanket in Durgapur area and in all the villages where coal is cheaply available. The emissions from these activities contribute significantly to the local air pollution and resulting into health problems.

4. FACTORS AFFECTING GROUND LEVEL CONCENTRATIONS

The main factors governing the Ground Level Concentration of a location is the meteorological condition prevailing in and around CSTPS. Climatically Chandrapur is the hottest place in Maharashtra. Atmosphere is dump and humid / sultry. The average minimum and maximum temperature in September 2024 is 28.0°C and 36.0°C respectively. Summer season is between middle of March to Middle of June. SW monsoon is the major rain water source and February is cold. The wind direction which is the important aspects as far as GLC is concerned is mainly between North - East and South-East. In summer the winds are basically concentrated between South – East to North - East directions with the intensity being light to moderate with some increase in speed. During the monsoon season winds are mostly in South – West direction. The winter season is from December to February. In winter, the winds are basically concentrated between South - East to North - East directions

Wind and temperature play a major role in dispersion of air pollutants. Generally temperature decreases with height, the rate of such decrease of temperature is about 6 °C to 10 °C per Km at the adiabatic lapse rate at a given point may be less than 6 °C per Km or inverted. For some times of the day or nights, especially during the colder months of December, January & February in India, the air tends to stagnate.

In fact relatively stable layers of air occur at laps rates (less than 2°C per Km). These layers become increasingly stable and finally full inversion condition is attained. As far as central part of India is concerned, the inversion/stable layers extending from ground level at 100 meters to 300 meters or so are considered important for air pollution point of view. Keeping in view the effect of inversion the stack for the some industrial and Thermal Power Plant are required to be design to overcome the pollution problem.

The inversion phenomenon in India is rather favourable. The inversion do not last more than a few hrs. at a time and thus the build-up pollutant concentration is not very intense. As far as Chandrapur area concerned the inversion layers are experienced in winter on some occasions but normally the sky is clear and emissions disperse over wide range. The thick layers of inversion are normally observed within the range of 200 meter and small percentage of inversion extends beyond 600 meters.

Inversion data collected in the past at Chandrapur meteorological station. The diffusion profile of the stack emission mainly depends on the stability of the atmosphere. The condition around the stack at CSTPS experiences a super-adiabatic lapse rate particularly in summer. In such a situation the atmosphere is set to be in an unstable equilibrium. It is under such condition when the pollutants are rapidly dispersed due to considerable vertical mixing of air. At this point the mentioned regarding plume behaviour is inevitable. When super-adiabatic lapse rate occurs “looping plumes” are observed resulting in bringing high concentration of plume gases to the ground for short period.

When inversion persists then dispersion of pollutants is at minimum and a “fanning” plume can be seen at Chandrapur during cloudy days in the downwind direction. If inversions were too frequent at Chandrapur then increasing the stack heights would be justified. Low GLC values are possible if the inversion conditions exist below the stack heights, resulting in “lofting” plume. Such a plume has minimal downward mixing and pollutants are dispersed downwind without any significant GLC.

“Fumigating” plume at Chandrapur will occur only in winter in the early hours at the time when morning sun breaks up radiation inversion. This accounts for high GLC during relatively short periods in the morning. A plume can be trapped if inversion layer prevail above and below the stack.

The climatic condition around CSTPS is predominantly clear with light winds blowing from south-west to north-west in summer. This condition ensures good dispersion of the pollutants released from the stacks.

PURPOSE OF PRESENT WORK:

The main purpose of this study is to forecast the ground level concentration of the pollutants including SPM, SO₂ and NO_x emitted from CSTPS in the area surrounding the power station. The study will give a clear idea about the relation between the emission from the stacks and their impact on the surrounding region.

Climate:

The Climate of this region can be classified as tropical hot climate with high range of temperature throughout the year primarily, there two prominent seasons in the district – The very hot summer and moderate winter. The summer months are very hot and prolonged while winter is short and mild. The monsoon season starts immediately after summer till late September. The southwest monsoon brings lot of rainfall during rainy season and there is no draught prone area in this district.

The temperature starts Increasing from the month of March. The daily mean temperature starts rising from the month of February and May is the peak summer month when mean maximum temperature goes up to 48⁰ C and minimum temperature is 32 ⁰C to 36⁰C. In severe hot conditions temperature raises up to 48⁰C. However temperature starts reducing after May due to onset of monsoon, which last from June to September when it is hot and humid. The maximum temperature recorded in the month of May 2025 is 47.5 ⁰C and minimum temperature is 31.3 ⁰C.

The average annual rainfall is about 215.27 mm. The rainfall recorded during the month of June, July, August, September and October 2025 are 195.80 mm 602.00 mm, 798.00 mm, 646.00 mm and 164.20 mm respectively. Average numbers of rainy days is 75 to 90 throughout the region. The relative humidity was very high during Rainy season, it was up to 83 %. The average maximum Humidity recorded in the month of July 2025 was 83.0 %.

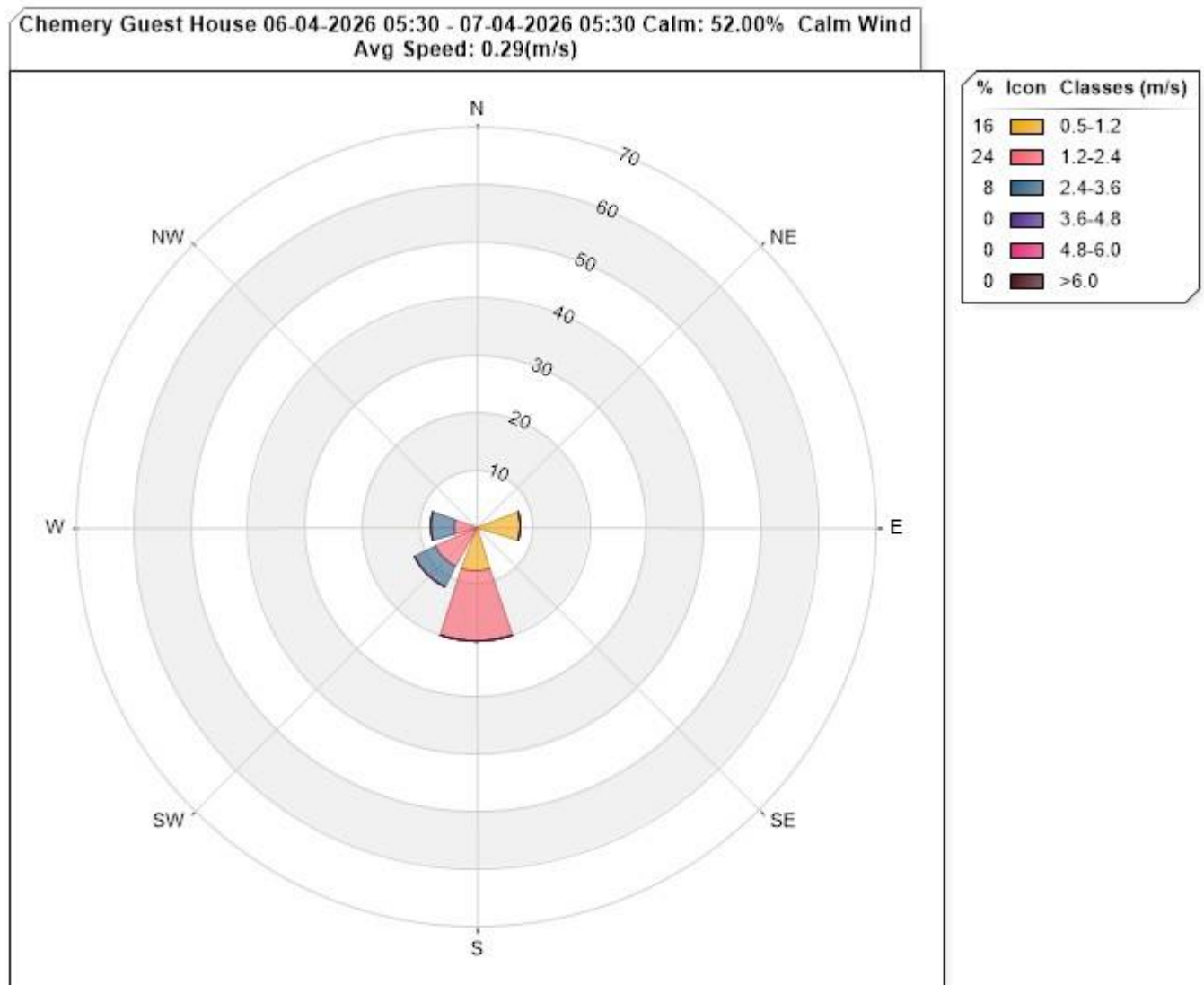


Fig.4.1: Wind Rose Diagram at CSTPS

ESTIMATION OF GLC

Major pollution loads from CSTPS are due to gaseous & particulate emissions. Impacts of these would be respectively on air, water bodies and the soil. Magnitude and significance of these impacts depend on the chemical nature of these pollutants.

Air pollutants released from stationery, mobile as fugitive sources within CSTPS area are transported due to atmospheric dispersion process. Stack emissions and fugitive emissions have more significance than mobile sources at CSTPS. Pollutants from these sources will be dispersed into atmosphere. Dispersion depends on stack emission parameters like flue gas composition, quantity, temperature, velocity and metrological conditions viz. ambient temperature & wind speed, severity of impact on receptor depends on the concentration of pollutant, its duration and nature of receptors.

Wind is the primary atmospheric transport mechanism. Wind pattern varies with season and atmospheric condition. Wind speed varies with height which is known as 'wind shears'. Wind shear within CHP which is at ground level is different than that at stack height. Hence dispersion pattern of SPM from ground and elevated sources would be different due to varying wind shears at stack heights of units 3 - 9 at CSTPS.

Atmospheric stability is related to the rise and falling volumes of air. It is a function of temperature gradient, atmospheric turbulence, wind speed, isolation etc. Thermal gradient varies with location of the industry and the gradient indicates the actual region of the atmosphere where emissions from stacks and ambient parameters intermingle. This is confined to mixing layer. Mixing layer is at that height or regions of the atmosphere which is capped by warm air layer which would inhibit any movement past it in the upward direction. Height of mixing layer in a region affects the dispersion process.

5. ESTIMATION OF GLC AT DOWN WIND DISTANCE

In order to assess the anticipated ground level concentration of various pollutants namely SPM, SO₂ and NO_x, efforts have been made to work out the concentration, using appropriate atmospheric dispersion models. The model used in the study is ISCST3 from US EPA and it has been widely accepted and validated for Indian conditions.

Forecasting requires information on maximum mixing depth (MMD). This is estimated by plotting maximum surface temperature and drawing a line parallel to the dry adiabatic temperature to the point at which the line intersects the ambient lapse rate for early morning period.

5.1. Dispersion Modeling

Dispersion of pollutants have been estimated using USEPA's dispersion model namely Industrial Source Complex (ISCST3) Dispersion Model. The geography and setting of co-ordinates are taken by assigning origin (0.0) at stack number 1. The settings are detailed in **Fig 5.1** showing aerial view of CSTPS. Meteorological data was collected and used for modeling. Stack emissions in terms of mg/Nm³ and stack dimensions were obtained from CSTPS. ISCST3 model was run using rural terrain and since height of all stacks are much above the buildings around downwash has not been considered for the purpose of GLC calculations. The details of stacks considered in the modeling are shown in **Table 5.1** and emissions of SO₂, NO_x and SPM are reported in **Table 5.2**. The ground level concentration has been predicted in the radius of 10 km. The results obtained using ISCST3 for 24 hr average concentrations at various locations are reported in **Table 5.3, 5.4 and 5.5** for SO₂, NO_x and SPM respectively. The angles in first column of **Table 5.3 - 5.5** are starting from x-axis and in clockwise direction as referred in **Fig 5.1**.



Fig 5.1:
Ariel view of seven stacks at Chandrapur Super Thermal Power Station.

Table 5.1: Details of Stacks at CSTPS (APRIL-2026)

Source	Stack height (m)	Stack temp (°C)	Average exit velocity (m/sec)	Stack dia. internal (m)
STACK 3	150	136	26.33	3.32
STACK 4	150	142	26.68	3.32
STACK 5	200	135	26.42	14.099
STACK 6	200	130	26.00	14.099
STACK 7	275	132	26.52	18.524
STACK 8	275	137	26.25	6.3
STACK 9	275	137	27.09	6.3

Table 5.2: Emissions from each Stack (APRIL-2026)

Source	Emission rates		
	SO ₂ (mg/Nm ³)	NO _x (mg/Nm ³)	SPM (mg/Nm ³)
STACK 3	1311	287	85
STACK 4	1276	305	91
STACK 5	1283	314	90
STACK 6	1298	292	90
STACK 7	1335	310	89
STACK 8	1317	314	33
STACK 9	1297	298	27

Table 5.3: 24-hr Average ground level concentrations of SO₂ predicted at various locations in 10 km radius, units of concentration µg/m³

DIRECTION (DEGREES)	DISTANCE (METERS)						
	500	1000	2000	3000	5000	8000	10000
10	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
20	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
30	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
40	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
50	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
60	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
70	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
80	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
90	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
100	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
110	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
120	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
130	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
140	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
150	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
160	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
170	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
180	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
190	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
200	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
210	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
220	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
230	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
240	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
250	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
260	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
270	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
280	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
290	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
300	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
310	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
320	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
330	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
340	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
350	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
360	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 5.4: 24-hr Average ground level concentrations of NO_x predicted at various location in 10 km radius, units of concentration µg/m³

DIRECTION (DEGREES)	DISTANCE(METERS)						
	500	1000	2000	3000	5000	8000	10000
10	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
20	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
30	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
40	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
50	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
60	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
70	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
80	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
90	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
100	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
110	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
120	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
130	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
140	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
150	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
160	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
170	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
180	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
190	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
200	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
210	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
220	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
230	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
240	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
250	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
260	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
270	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
280	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
290	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
300	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
310	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
320	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
330	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
340	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
350	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
360	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 5.5: 24-hr Average ground level concentrations of SPM predicted at various locations in 10 km radius, units of concentration $\mu\text{g}/\text{m}^3$

DIRECTION (DEGREES)	DISTANCE(METERS)						
	500	1000	2000	3000	5000	8000	10000
10	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
20	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
30	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
40	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
50	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
60	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
70	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
80	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
90	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
100	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
110	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
120	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
130	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
140	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
150	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
160	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
170	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
180	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
190	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
200	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
210	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
220	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
230	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
240	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
250	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
260	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
270	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
280	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
290	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
300	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
310	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
320	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
330	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
340	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
350	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
360	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Ground Level Concentration Study Report

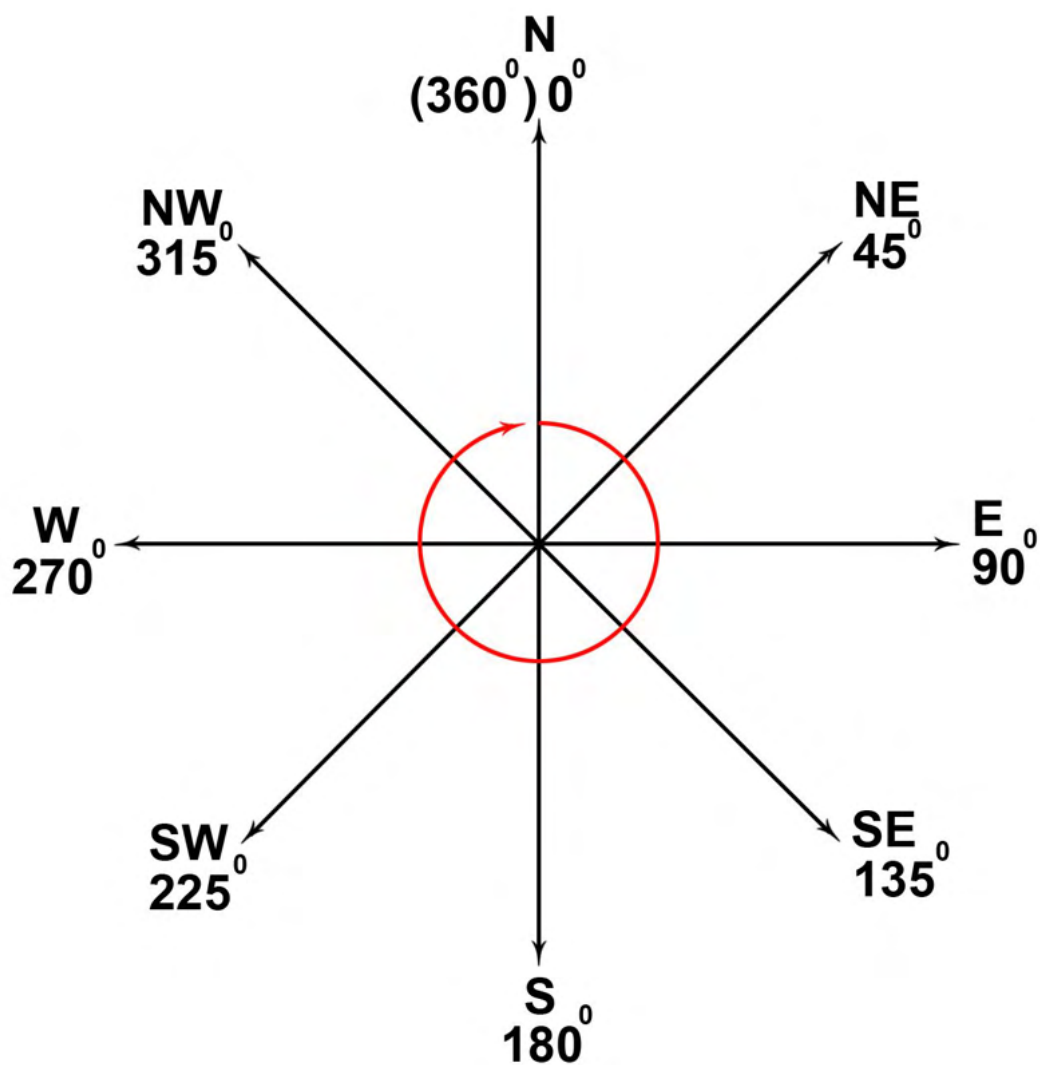
Surface plot of concentration in 10 km radius for SO₂, NO_x and SPM are depicted in **Fig 5.3, 5.4 and 5.5** respectively. Mostly the concentrations of these pollutants are higher in the North direction with prevailing meteorological conditions.

The ground level concentration have been monitored at various places around CSTPS and reported in **Table 5.6**.

Table 5.6: GLC monitored at various locations

Sr. No	Date	Time in Hours	Location	Dist. From CSTPS (km)	Direction w.r.t. CSTPS	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)
1	06.04.2026	10:40	Kitadi Village	5.5	N	80	21	19.5	23.4
2	06.04.2026	11:00	Padmapur	4.7	NE	91	25	20.8	25.7
3	06.04.2026	11:20	Nice Computer	5.9	S	89	34	22.2	26.3
4	06.04.2026	12:10	Tukum Masjid	5.6	SE	95	37	21.5	24.1
5	06.04.2026	11:45	Carmel Academy	4.5	E	84	22	20.5	22.7
6	06.04.2026	09:45	Gajanan Mandir (Wadgaon)	3.8	SW	85	20	21.8	24.3
7	06.04.2026	15:00	Ash-bund	9.4	NW	83	19	20.6	26.2
8	06.04.2026	14:10	Morwa	7.0	W	87	30	23.2	27.4

Directions with respect to Degrees



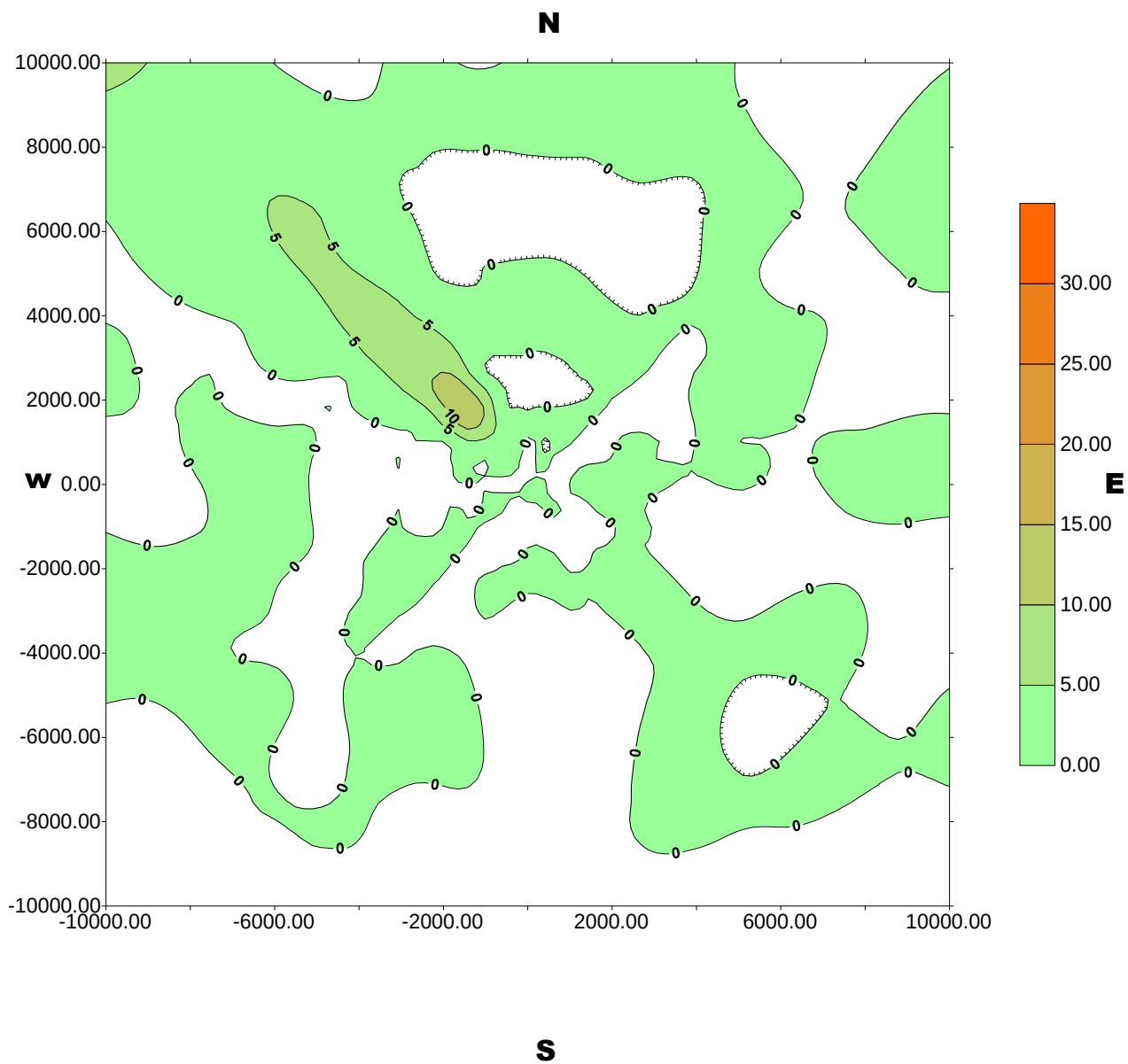


Fig. 5.3: Surface plot showing ground level concentration of SO₂ in 10 km radius

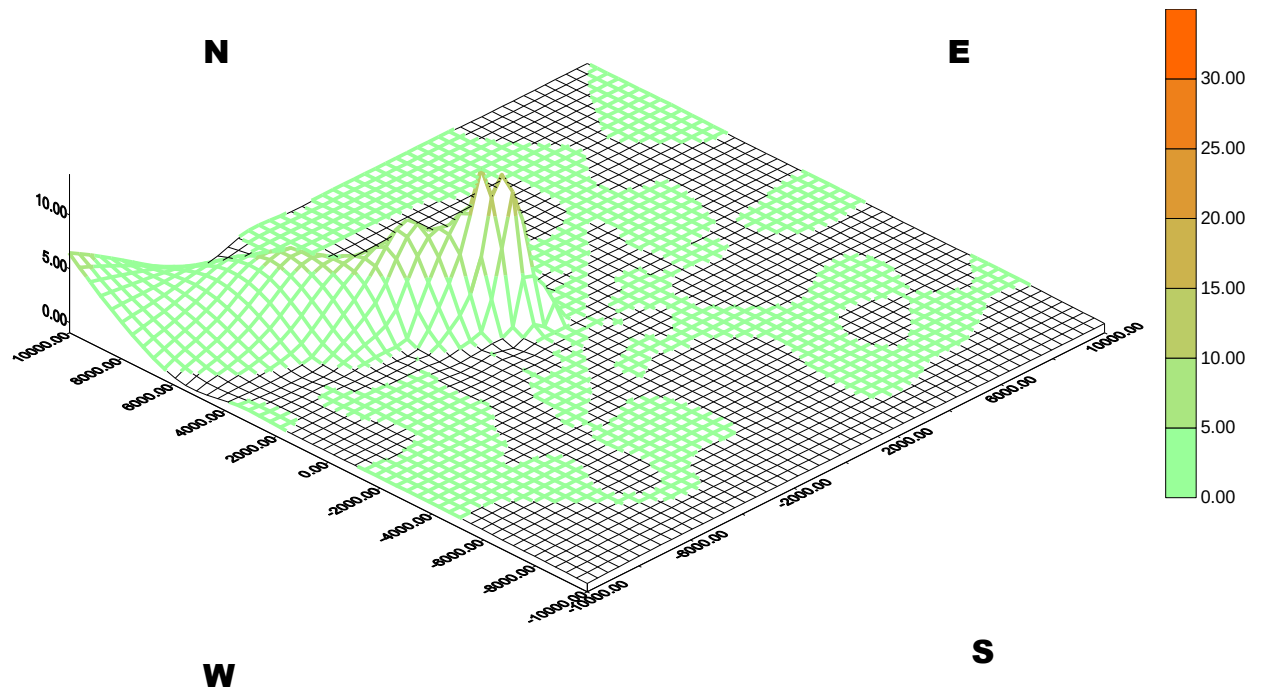


Fig 5.3 Surface Plot Showing Ground Level Concentration of SO₂ in 10Km. radius

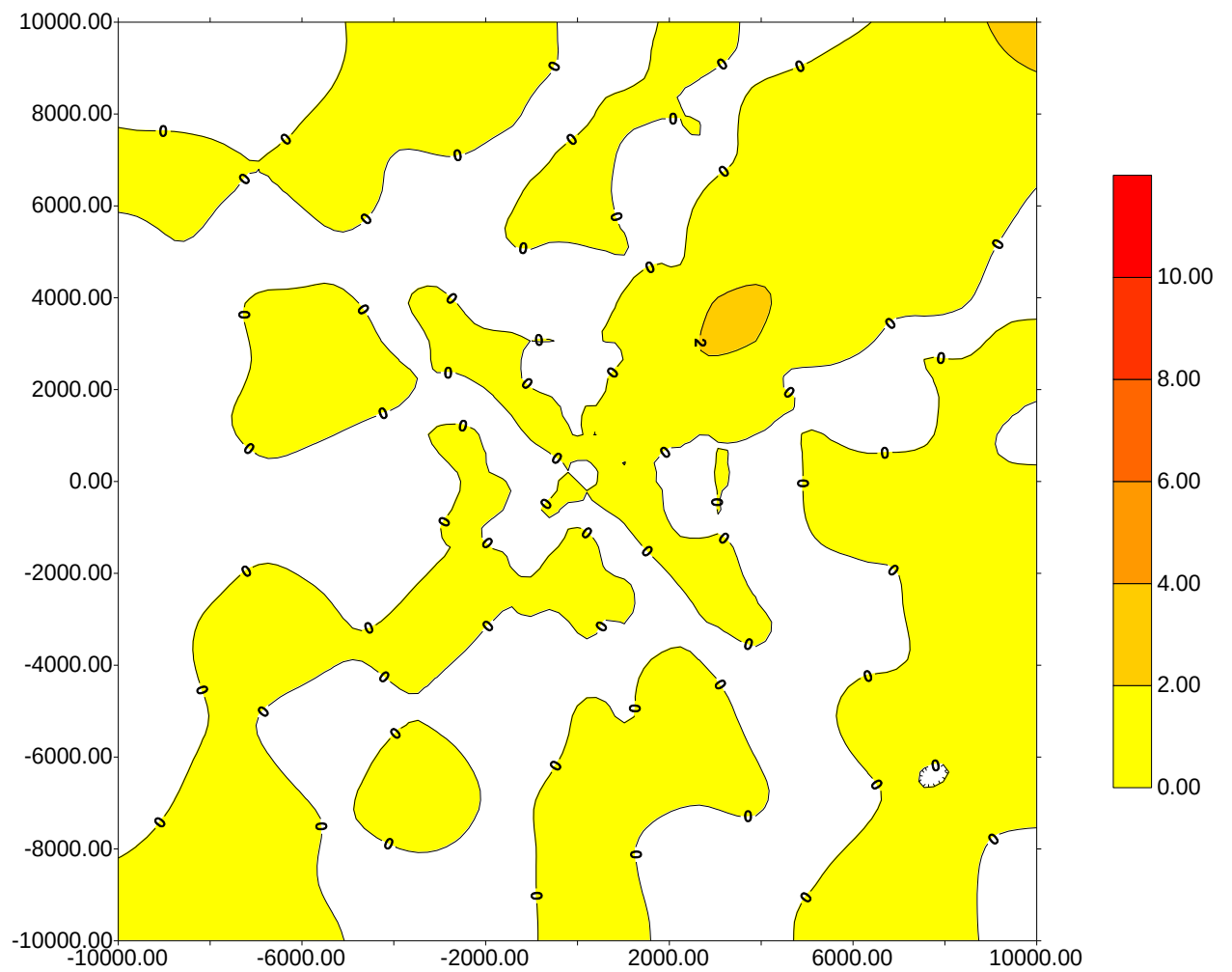


Fig. 5.4: Surface plot showing ground level concentration of NOx in 10 km radius

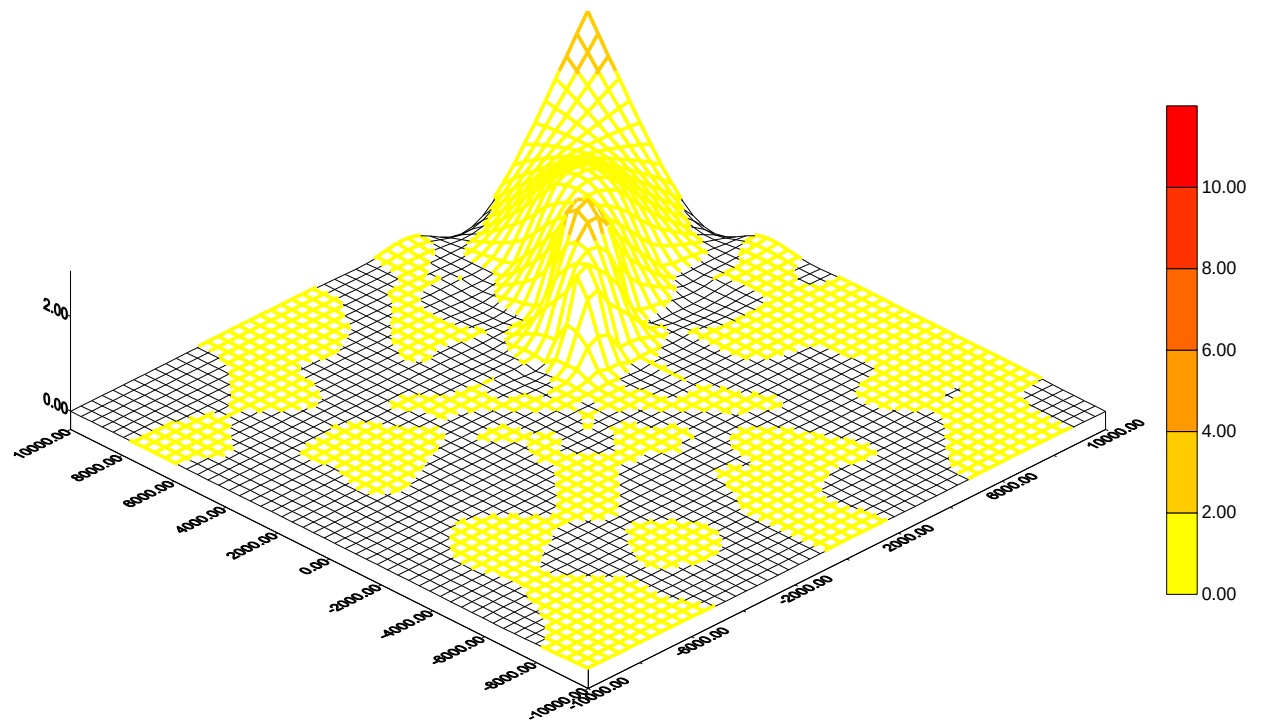


Fig 5.4 Surface Plot Showing Ground Level Concentration of NOx in 10Km. radius

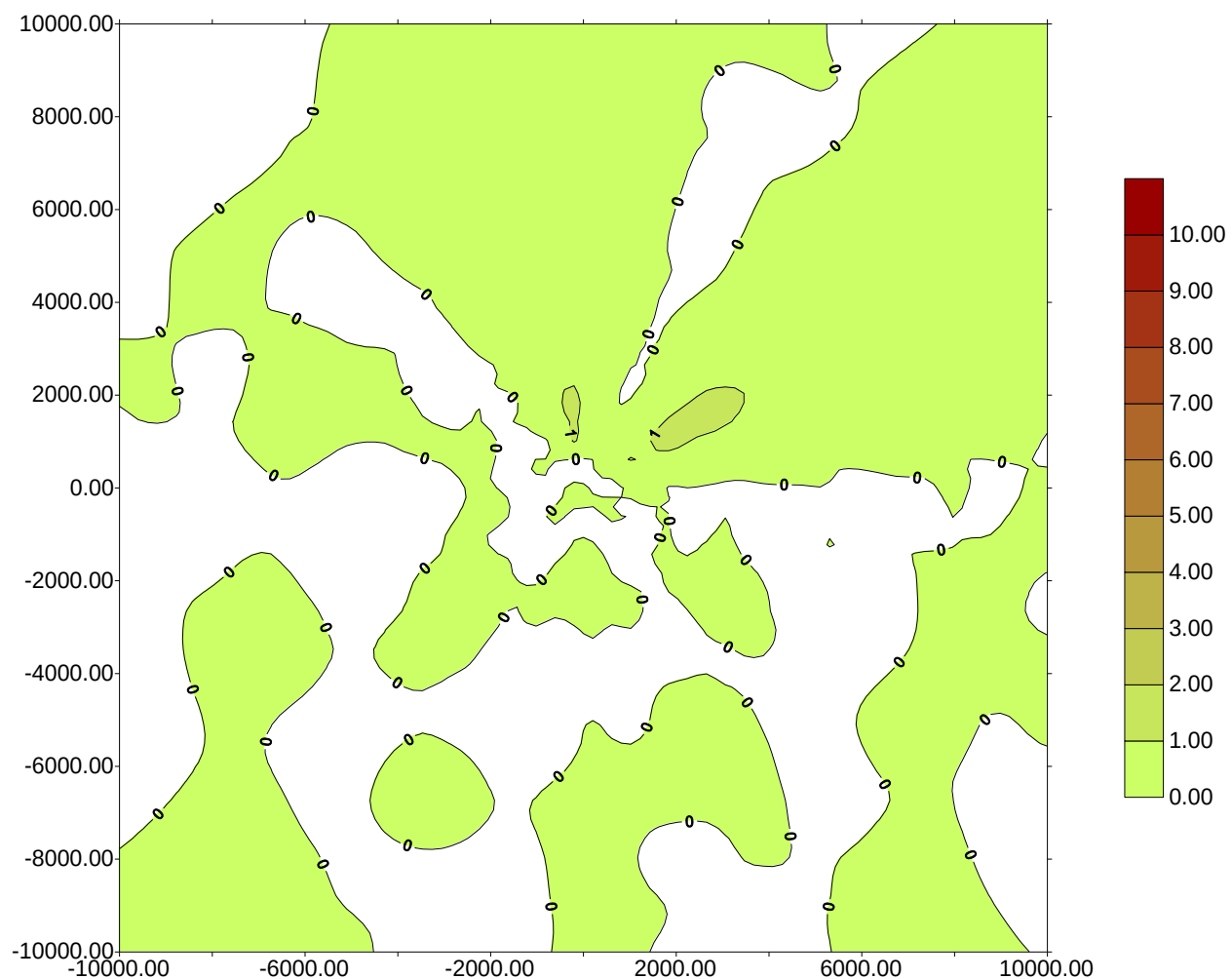


Fig. 5.5: Surface plot showing ground level concentration of PM in 10 km radius

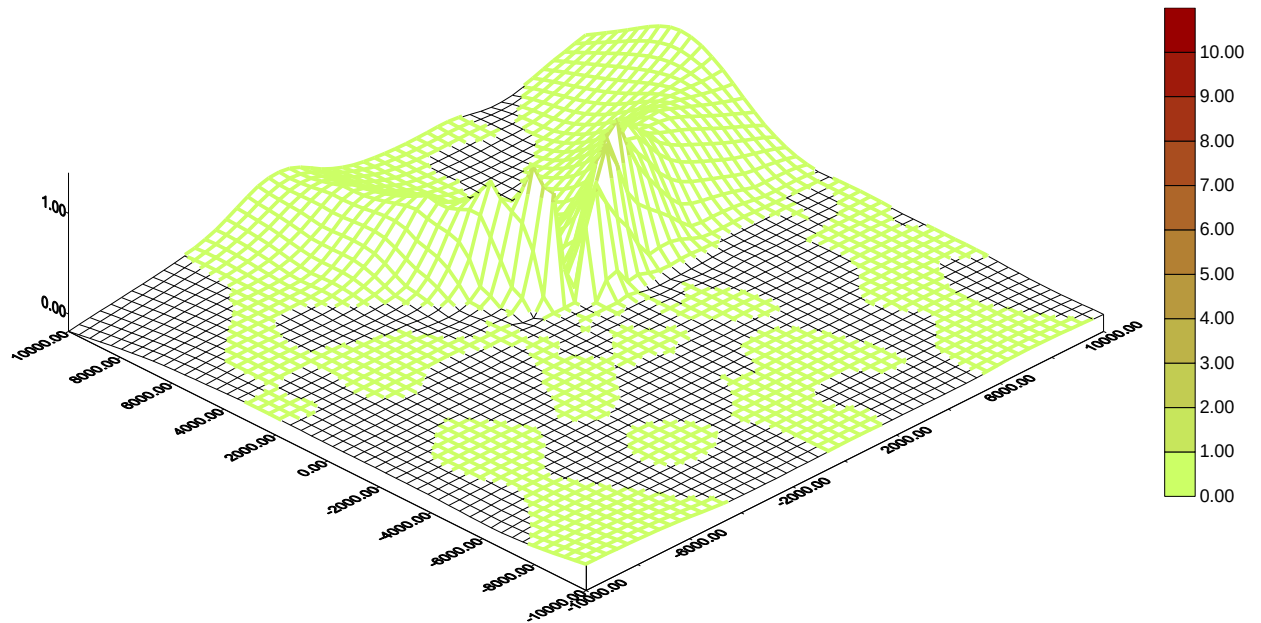


Fig 5.5 Surface Plot Showing Ground Level Concentration of SPM in 10Km. radius

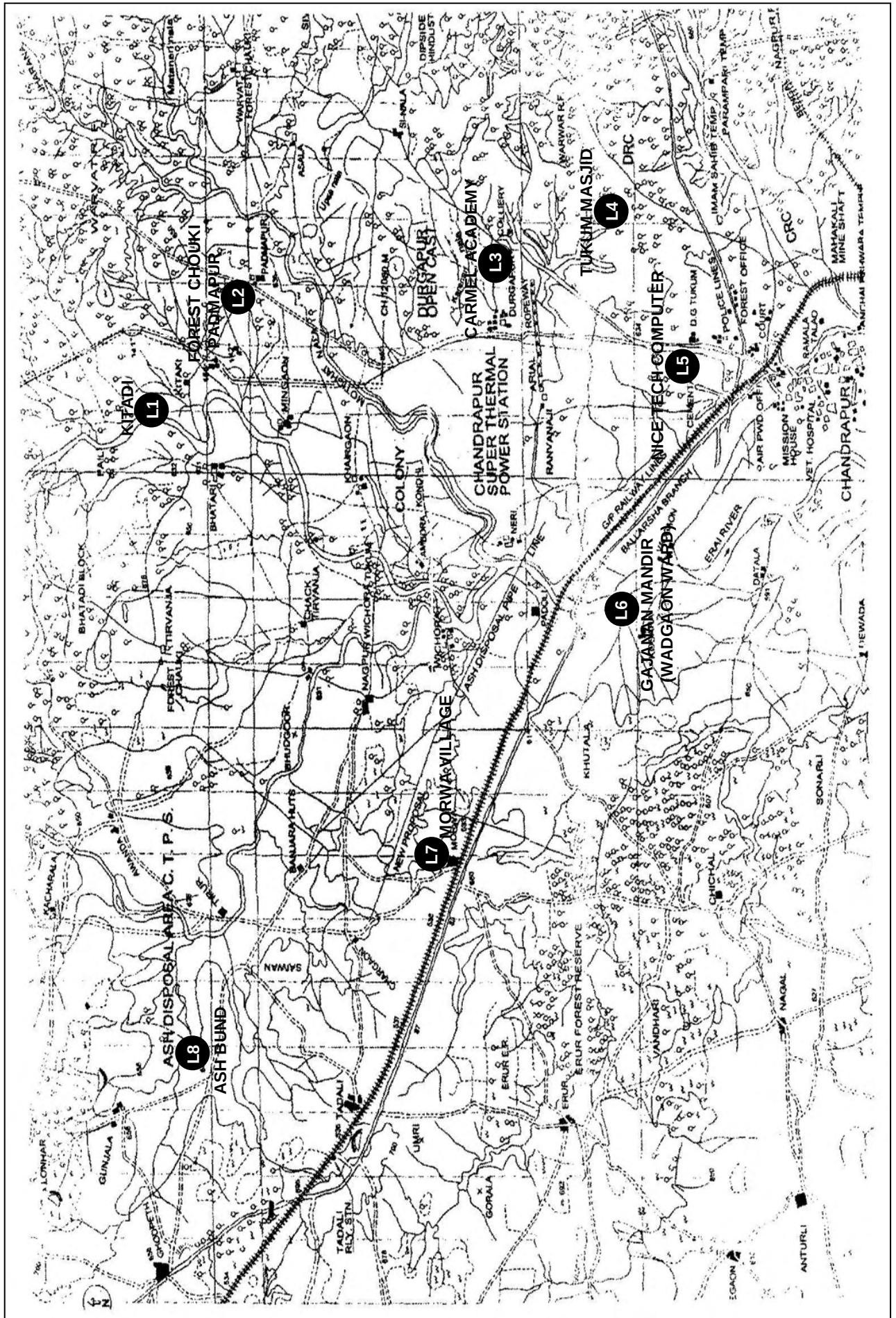
5.7 CONCLUSION

The concentrations of pollutants predicted by ISCST3 model at various locations are well within permissible limits.

During March 2025, predominant wind direction were North West. The highest ground level concentrations are appearing at locations Carmel Academy & Gajanan Mandir, Wadgaon from E & SW direction respectively and within distance of about 3 to 10 kms.

The locations near the source are vulnerable to pollutants up to 10 km area surrounding the source. Depending upon the wind direction from Meteorological data, surrounding area gets affected. Mostly the concentrations of these pollutants are higher in the South of the plant with prevailing meteorological conditions. However the concentrations are in within permissible limits.

Agricultural fields and tree plantation reduced the severity of concentration of pollutants. Thus concentrations are well within permissible limits.



ANNEXURE-XII

Health check up camps organized on dated 13.01.2026.



ANNEXURE-XII

Health awareness program on cervical Cancer and breast cancer at CSTPS, Chandrapur was held on dated 18.02.2026 in collaboration with Care Hospital , Nagpur.

Breast and cervical Cancer health check up was done by Dr. Neha Bhargava, Obstetrics & Gynae Oncologist from Care Hospital , Nagpur.



ANNEXURE-XII



ANNEXURE-XIII**CHANDRAPUR SUPER THERMAL POWER STATION, CHANDRAPUR.**For the period of **January 2026 to June 2026****MONTHLY AVERAGE STACK MONITORING REPORT**

MONTH	PARAMETERS	UNIT # 3 (210 MW)	UNIT # 4 (210 MW)	UNIT # 5 (500 MW)	UNIT # 6 (500 MW)	UNIT # 7 (500 MW)	UNIT # 8 (500 MW)	UNIT # 9 (500 MW)
Jan-26	SPM (mg/NM ³)	83	85	89	93	84	31	25
	SO ₂ (mg/NM ³)	1296	1307	1273	1315	1292	1305	1275
	NO _x (mg/NM ³)	279	299	272	314	315	279	269
	Hg (mg/Nm ³)	BQL	BQL	BQL	BQL	BQL	BQL	BQL
	NH ₃ (PPM)	2.49	2.98	3.52	3.66	3.23	NA	NA
Feb-26	SPM (mg/NM ³)	81	85	91	86	79	36	34
	SO ₂ (mg/NM ³)	1309	1312	1288	1289	1318	1297	1383
	NO _x (mg/NM ³)	293	294	307	313	312	294	303
	Hg (mg/Nm ³)	BQL	BQL	BQL	BQL	BQL	BQL	BQL
	NH ₃ (PPM)	2.25	2.40	2.91	3.03	3.78	NA	NA
Mar-26	SPM (mg/NM ³)	80	82	95	82	88	42	35
	SO ₂ (mg/NM ³)	1304	1310	1315	1299	1313	1265	1268
	NO _x (mg/NM ³)	299	300	303	284	315	309	282
	Hg (mg/Nm ³)	BQL	BQL	BQL	BQL	BQL	BQL	BQL
	NH ₃ (PPM)	2.33	2.60	3.03	3.41	2.97	NA	NA
Apr-26	SPM (mg/NM ³)	85	91	90	90	89	33	27
	SO ₂ (mg/NM ³)	1311	1276	1283	1298	1335	1317	1297
	NO _x (mg/NM ³)	287	305	314	292	310	322	298
	Hg (mg/Nm ³)	BQL	BQL	BQL	BQL	BQL	BQL	BQL
	NH ₃ (PPM)	ND	2.59	ND	ND	3.27	NA	NA
May-26	SPM (mg/NM ³)	83	86	89	88	81	37	26
	SO ₂ (mg/NM ³)	1278	1309	1287	1295	1316	1270	1286
	NO _x (mg/NM ³)	297	312	300	312	306	285	291
	Hg (mg/Nm ³)	BQL	BQL	BQL	BQL	BQL	BQL	BQL
	NH ₃ (PPM)	ND	ND	ND	ND	ND	NA	NA
Jun-26	SPM (mg/NM ³)	89	90	87	83	84	31	26
	SO ₂ (mg/NM ³)	1288	1310	1306	1300	1316	1290	1296
	NO _x (mg/NM ³)	296	299	305	299	307	298	294
	Hg (mg/Nm ³)	BQL	BQL	BQL	BQL	BQL	BQL	BQL
	NH ₃ (PPM)	ND	ND	ND	ND	ND	NA	NA

Note: -1) ND = Not Detectable, BQL = Below Quantification Limit**Analysis carried out by the MOEF&CC recognized laboratory, i.e., M/s. Mahabal Enviro Engineers Pvt Ltd.**As per MPCB Consent NH₃: Not to exceed 50 ppm.

As per the MPCB consent and the MoEF & CC Notification effective from 07/12/2015.

Parameter	U# 3 to 7	U#8&9
SPM (mg/NM ³)	100	50
SO ₂ (mg/NM ³)	U#3&4=600, U#5,6&7=200	200
NO _x (mg/NM ³)	600	450 MoEF notification dated 19.10.2020
Hg (mg/NM ³)	U#3&4=N/A, U#5-7=0.03	0.03

ANNEXURE-XIII

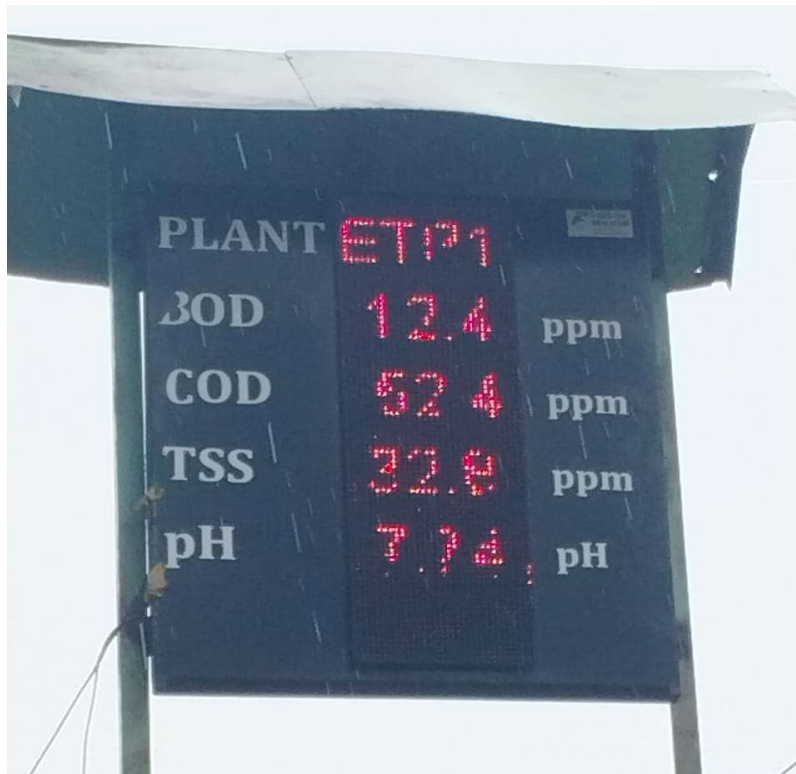
- **Display boards showing Environmental Data at the main gate**



- **Display boards showing Environmental Data at the Major gate**



- Display of ETP Parameters at the main gate



- Display of ETP Parameters in Unit 8 & 9 area.





MAHAGENCO
Maharashtra State Power Generation Company Ltd. 1973
CIN: U40100MH12005SGC153648

(A GOVERNMENT OF MAHARASHTRA UNDERTAKING)

CHANDRAPUR SUPER THERMAL POWER STATION
MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED
(ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 & ISO 50001:2018)
Office of: Chief Engineer, C.S.T.P.S. Urjanagar, Chandrapur - 442404
Phone: 07172 - 220155 to 220159 Fax: 07172 - 220203.
Email: cegenchandrapur@mahagenco.in

CHN/Env/ENV Audit/

001449

Date: 29 JUN 2026

To
Member Secretary,
MPCB, Kalpataru Point,
Sion (East), Mumbai - 400022

Sub: Submission of Environmental Statement Report 'Form-V' for the year 2025-26

Ref: MPCB/CONSENT-0000274332/CR/2605000040 dated 03.05.2026

Respected Sir,

Please find enclosed herewith the "Environmental Statement Report" of Chandrapur Super Thermal Power Station, Chandrapur for the year 2025-26 (year ending 31st March 2026).

The "Environmental Statement Report" is prepared in prescribed Form-V as per provision of rule 14 of the Environment Protection (2nd Amendment) Rules 1992.

Thanking you.

Yours sincerely

amr
29/06/26

Chief Engineer (O&M)
CSTPS, Chandrapur

Encl.: - As above.

Copy s.w.rs.to:

1. The Director (Op), MSPGCL, Mumbai.
2. The Joint Director (APC), MPCB, Mumbai.
3. The Executive Director (O&M-II/E&S), MSPGCL, Mumbai.

Copy f.w.cs.to:

1. Chief Engineer (E&S), MSPGCL, Mumbai.
2. Regional Officer, MPCB, Chandrapur.

Copy to:

Sub Regional Officer, MPCB, Chandrapur.

(90)

28/6/26
Sr. Clerk
Regional Officer
M.P.C. Board,
Chandrapur

(FORM – V)
(See Rule No. 14)

Environmental Statement for the Financial Year ending on 31st March 2026

PART – A
GENERAL INFORMATION ABOUT THE COMPANY

1.

Name of the Company

:

Maharashtra State Power Generation Company Ltd.
Chandrapur Super Thermal Power Station,
Urjanagar, Dist. – Chandrapur.
☎ 07172-220155 to 220159
Fax - 07172-22020 Email - cegenchandrapur@mahagenco.in
2.

Name of occupier

:

Chief Engineer
3.

Registered Office Address

:

Plot No. G-9, 'Prakashgad' Bandra (E),
Mumbai – 400 051.
4.

Factory Address

:

Chandrapur Super Thermal Power Station,
Urjanagar, Post–Durgapur, Dist–Chandrapur. Pin:442404
5.

Production Capacity (Installed)

:

2920 MW

■ Consent to operate for electricity generation
(U# 3 to 9) & transportation of coal by closed
pipe conveyor system vide format 1.0/CAC/UAN
No: MPCB-CONSENT-0000274332/CR/
2605000040 Dt.03.05.2026 valid up to
31.05.2027 .

6.

Name of Product	Electricity Generation in Million Units (MU) as per actual during the year	
Electricity Units	2024-2025	2025-2026
	14900.546	14476.722

Year of Establishment :

Unit No.	Initial Installed Capacity	Date of commercial operation		
Unit No. III	210 MW	1 st	April	1986
Unit No. IV	210 MW	4 th	November	1986
Unit No. V	500 MW	1 st	December	1992
Unit No. VI	500 MW	1 st	December	1993
Unit No. VII	500 MW	1 st	March	1998
Unit No. VIII	500 MW	4 th	June	2016
Unit No. IX	500 MW	24 th	November	2016

7. Date of last Environmental Statement Submitted:- 05th August-2025.

PART - B

WATER & RAW MATERIAL CONSUMPTION

1. Total Water Consumption (m³/day) :

I. Water Consumption m ³ /day (Average) :-	Stage – I, II, III & IV	
1. Process	Year 2024-2025	Year 2025-2026
i. Boiler Feed/Make Up	5,078	3,672
ii. Cooling Water/Make Up	93,850	92,776
iii.Ash disposal (Raw Water)	23,616	20,667
Sub Total	1,22,544	1,17,115
2. Domestic – Consumption	14,056	13,743
3. Pre Treatment + Post Treatment Plant (Waste)	7,992	7,429
4.Fire Fighting & gardening	2200	2200
Sub Total	24,248	23,372
Grand Total	1,46,792	1,40,487
II. Water recovered and reused in process :-	Stage – I, II, III & IV	
	Year 2024-2025	Year 2025-2026
a) Water recovered for ash disposal from ETP – I,II,III & IV (Reused for ash disposal)	39,867	37,346
b) Water recovered for ash disposal from- STP (Reused for ash disposal & gardening)	3,425	3,418
c) Ash bund recovery water (Recycle & reused for ash disposal)	13,294	14,452
Total	56,586	55,216

1. Water Consumption per unit of the product

Name of the product	Process Water consumption per unit of Product Manufactured	
	<i>During thet financial year 2024-2025</i>	<i>During the current financial year 2025-2026</i>
Electrical Energy	3.3605 Ltr./KWH OR 3360.52 KL/MU’S	3.4129 Ltr./KWH OR 3412.90 KL/MU’S

1. Raw Material Consumption

Name of Raw Material	Name of the Product	Consumption of raw material per unit of the product manufactured	
		<i>During the financial year 2024-2025</i>	<i>During the current financial year 2025-2026</i>
i. Coal	Electricity	0.8169 Kg/KWH	0.8062 Kg/KWH
ii. Fuel Oil (FO + LDO)		1.8240 ml/KWH	1.4511 ml/KWH
iii. Auxiliary Consumption		0.0908 MU/MU	0.0911 MU/MU
iv. Hydrochloric acid		1.1238 gm/Lit.	1.3377 gm/Lit.
v. Caustic soda Lye		0.2053 gm/Lit.	0.2459 gm/Lit.

1. Total Water Consumption (KL):

I. Water Consumption (KL)	Stage – I, II, III & IV	
1. Process	Year 2024-2025	Year 2025-2026
i. Boiler Feed/Make Up	18,53,473	13,40,154
ii. Cooling Water/Make Up	3,42,55,132	3,38,63,379
iii. Ash disposal	86,19,686	75,43,451
Sub Total	4,47,28,291	4,27,46,984
2. Domestic – Consumption	51,30,317	50,16,318
3. Pre Treatment +Post Treatment Plant (Waste)	29,17,027	27,11,429
4. Fire Fighting & gardening	8,03,000	8,03,000
Sub Total	88,50,344	85,30,747
Grand Total	5,35,78,635	5,12,77,731
II. Water recovered and reused process water	Stage – I, II, III & IV	
	Year 2024-2025	Year 2025-2026
a) Water recovered for ash disposal from ETP – I,II,III & IV (Reused for ash disposal)	1,45,51,352	1,36,31,108
b) Water recovered for ash disposal from- STP (Reused for ash disposal & gardening)	12,50,107	12,47,644
c) Ash bund recovery (Recycle & reused for ash disposal)	48,52,485	52,75,036
Total	2,06,53,944	2,01,53,788

2. Production Details

Name of the Product	<i>During the financial year 2024-2025</i>	<i>During the current financial year 2025-2026</i>
Electrical Energy	14900.546 MU	14476.772 MU

3. Raw Material Details

Raw Material Consumption	<i>During the financial year 2024-2025</i>	<i>During the current financial year 2025-2026</i>
i. Coal	1,21,72,328 MT	1,16,71,798 MT
ii. Auxiliary Power	1326.29 MU	1319.29 MU
iii. Furnace Oil	21106.91 KL	15803.82 KL
iv. LDO	6072.49 KL	5204.18 KL
v. Lubrication Oil	533.84 KL	288.20 KL
vi. Grease	38211 Kg.	4257.2 Kg.
vii. Hydrochloric Acid	2083 MT	1792.82 MT
viii. Caustic soda Lye	380.64 MT	329.59 MT

PART - C

POLLUTION DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT

1. Water Pollution :-

Pollutants	Quantity of pollutants generated (Kg./day)	Concentration of pollutants in discharges (mg./ltr.)	Percentage of variation prescribed standards with reasons
----- Please see Annexure – I -----			

2. Air Pollution (Stack Monitoring) :-

Pollutants	Quantity of pollutants generated	Concentration of pollutants in emission (mg/Nm ³)	Percentage of variation prescribed standards with reasons
Particulate Matter U#3 to 7	4698.48 Kg /day OR 4.6984 MT/day	83.40	-
Particulate Matter U#8 & 9	947.04 Kg /day OR 0.9470 MT/day	24.45	-

➤ For Stack Monitoring Details Please See **Annexure - II**

Air Pollution (Ambient Air) :-

Location	RSPM	SPM	SO ₂	NO _x
----- Please see Annexure – III -----				

PART - D
HAZARDOUS WASTES

(As specified under Management and Transbondry Movement Handling Rules, 2010)

Hazardous Wastes	Total Quantity (MT)	
	During the financial year 2024-2025.	During the financial year 2025-2026.
From Process	Details of H.W. as per schedule – I Sr.No.5.1,5.2 & 34.4 is as below. 1) Used Oil given to CHWTSDF= 59.85 KL 2) Used Resin given to CHWTSDF=12.28 MT 3) Used Glass wool given to CHWTSDF= 26.28 MT 4) Used oil Filters = Nil	Details of H.W. as per schedule – I Sr.No.5.1,5.2 & 34.4 is as below. 1) Used Oil given to CHWTSDF= 127.49 KL 2) Used Resin given to CHWTSDF=152.47 MT 3) Used Glass wool given to CHWTSDF= 154.10 MT 4) Used oil Filters = Nil

PART - E
SOLID WASTES

Solid waste	Total Quantity (MT)	
	During the year 2024-2025	During the current financial year 2025-2026
Ash Generation :		
1. From Process – Bottom Ash	1552486	1318388
2. From Pollution Control Facilities – Fly Ash	3127928	3076239
Total Quantity	46,07,449	43,94,627
Ash Utilisation : Quantity of Ash utilization.		
A] Ash utilised from Ash Pond :		
i. Agriculture	Nil	Nil
ii. Cement	08	07
iii. Bricks Manufacture	186923	241554
iv. Construction work- Bridge / Road filling	342863	Nil
v. WCL for U/G mine stoving	Nil	Nil
vi. Tiles	Nil	Nil
vii. Land filling /others	25837	43459
viii. Asbestos	Nil	Nil
B] Fly Ash utilised from ESP Hopper		
i. ACC	224154	52806
ii. Ultratech Cement	312472	243516
iii. Ambuja Cement	497458	86944
iv. Manikgarh Cement	260874	309523
v. Orient Cement	Nil	Nil
vi. Dalmiya cement	39334	31531
vii. Ash Tech	17084	Nil
viii. RCCPL	Nil	47821
IX. Other	82451	125985
X. Adani Ltd.	Nil	656694
Total Ash Utilised	19,91,458	18,39,830
Ash utilisation %	43.22	41.87
Total Ash Deposited in Ash Pond	26,15,991	25,54,797
Quantity Re-cycled or re-utilised within the unit(MT)		
i. Sludge from ETP – I (Silt & Ash)	7817.00	7817
ii. Sludge from ETP – II (Silt & Ash)	3275.00	3275
iii. Sludge from ETP – III (Re-utilised as coal powder)	126.00	126.00
Sludge from STP – I & II (Utilised for Gardening)	105.00	98.00
Total Quantity	11323.00	11316
Composition of ETP Sludge is as per Annexure – V		

PART - F
CHARACTERISTICS OF HAZARDOUS/SOLID WASTE

Sr. No.	Description	Quantity (MT)	Constituent Parameter with concentration %	Method of Disposal
I.	Hazardous Waste			
	Used Oil	127.49 KL	As per schedule – I Sr. No. 34.4	Disposal at CHWTSDF.
	Used Resin	152.47 MT	As per schedule – I Sr. No. 34.4	Disposal at CHWTSDF.
	Glass wool	154.10 MT	As per schedule – I Sr. No. 34.4	Disposal at CHWTSDF.
II.	Solid Waste			
	a. Bottom Ash b. Fly Ash from ESP	1318388 3076239	Annexure - IV	Dry fly ash is collected by cement/bricks mfg & SSI units from silo & remaining ash is disposed off by making slurry of adequate concentration & pumping it hydraulically to ash bunds.
	c. Sludge from - ETP – I - ETP – II - ETP -III	7817 3275 126.00	Annexure – V (ETP – I & II sludge analysis parameters meet the limits as specified in Ann. – II consent given by MPCB)	ETP – I & II sludge Transported and deposited in Ash bund area. ETP – III Sludge is recovered as coal particles and reutilised as fuel.
	d. Sludge from STP – I & II	98.0	--	Used as manure for plantation and gardening.

PART - G

IMPACT OF POLLUTION ABATEMENT MEASURES TAKEN ON
CONSERVATION OF NATURAL RESOURCES AND ON COST OF
PRODUCTION

Cost Expenditure for Pollution Control

Description	Total Expenditure Rs. (<i>In Lacs</i>) During Financial Year 2024-2025	Total Expenditure Rs. (<i>In Lacs</i>) During Financial Year 2025-2026
1. Water Pollution Control	1042.00	885.84
2. Air Pollution Control	2599.82	2408.65
3. Solid Waste Disposal	1736.66	2718.31
4. Green Belt Development	27.11	23.99
5. Others.		
i. MPCB Visit (JVS Charges)	7.61	9.59
ii. Consent Fees (MPCB)	235.51	243.05
iii. MPCB water cess charge	NA	NA
iv. Hazardous Waste Disposal	10.88	88.74
6. Environmental Monitoring	282.03	313.57
Total Expenditure	5941.62	6691.74

PART – H
ADDITIONAL MEASURES/INVESTMENT PROPOSALS
FOR ENVIRONMENTAL PROTECTION, ABATEMENT OF
POLLUTION, PREVENTION OF POLLUTION

Description	Proposed Modifications	Proposed date of Completion	Estimated cost Rs. (In Lacs.)	Purpose	Remarks
Construction od RCC Channel structure to avoid water contamination in Ranvendali Nallah at CSTPS, Chandrapur	Replacement of Hume pipes by RCC Channel	Dec-29	246.40	To avoid water contamination in Ranvendali Nallah	--
Tree plantation to maintain environmental balance	Target of 60,000 tree plantations	Dec-27	206.08	To maintain environmental balance in Chandrapur district.	--

2. Green Belt Development

	Up to year 2024-2025	Total up to March 2026
a. No. of trees planted cumulative	1326991	1327113
b. Area covered (Hectare)	553.0	554.0
c. Total % of area covered	49.51	49.57

❖ Future planning proposed for the year 2026-27 is to plant 300 no. of saplings in addition to above mentioned 60,000 saplings at CSTPS Chandrapur.

PART - I
ANY OTHER PARTICULARS FOR
IMPROVING QUALITY OF ENVIRONMENT

Description	Total Expenditure Rs. (In Lacs.)	Purpose	Remarks
1) Expenditure incurred on promoting and facilitating ash utilisation system	1249.77	To improve ash utilisation	---

Annexure - I
Water Pollution Generated During 2025-2026

Pollutant	Quantity of effluent water (M ³ /day)	Parameters as per consent	Limits as per MPCB	Average as per actual analysis. Except pH all in mg/l	Quantity of pollutants generated (Kg/day)	% Variation from prescribed standard with reason
I Ash Pond Effluent	13317	1. pH	6.5-8.5	7.75		Within Limit
		2. Suspended Solids	NTE 100 mg/l	15.0	199.75	Within Limit
		3. Oil & Grease	NTE 10 mg/l	ND	ND	Within Limit
II Cooling Tower B/D	5597	1. Free Chlorine	NTE 0.5 mg/l	BDL	BDL	Within Limit
		2. Zinc	NTE 1 mg/l	0.06	0.33	Within Limit
		3. Chromium	NTE 0.2 mg/l	ND	ND	Within Limit
		4. Phosphate	NTE 5 mg/l	0.58	3.246	Within Limit
III Condensate Cooling Water		1. pH	6.5-8.5	8.37	-	Within Limit
		2. Temp.	Diff. in temp. Below 5°C	-	-	Within Limit
		3.Free Chlorine	NTE 0.5 mg/l	BDL	BDL	Within Limit
IV Boiler Water B/D	101	1. Suspended Solids	NTE 100 mg/l	BDL	BDL	Within Limit
		2. Oil & Grease	NTE 10 mg/l	ND	ND	Within Limit
		3. Copper	NTE 1.0 mg/l	BDL	BDL	Within Limit
		4. Iron	NTE 1.0 mg/l	0.13	0.0131	Within Limit
V DM Plant Effluent	922	1. pH	5.5 – 9.0	7.28		Within Limit
		2. BOD 3 days	NTE 30 mg/l	6.88	6.343	Within Limit
		3. COD	NTE 250 mg/l	28.5	26.27	Within Limit
		4. Suspended Solids	NTE 100 mg/l	7.08	6.527	Within Limit
		5. Oil & Grease	NTE 10 mg/l	ND	ND	Within Limit
		6. TDS	NTE 2100mg/l	661.75	610.13	Within Limit
VI Domestic Effluent	3428	1. pH	N.S.	7.4		-
		2. Suspended Solids	NTE 50 mg/l	29.0	99.12	Within Limit
		3. BOD 3 days	NTE 30 mg/l	14.0	26.76	Within Limit
VII ETP I,II,III & IV	37346	1. pH	6.5 to 8.5	7.83		Within Limit
		2. Suspended Solids	NTE 100 mg/l	20.55	767.46	Within Limit
		3. BOD 3 days	NTE 30 mg/l	8.22	306.98	Within Limit
		4. COD	NTE 250 mg/l	29.09	1086.39	Within Limit
		5. Oil & Grease	NTE 10 mg/l	ND	ND	Within Limit
		6. TDS	N.S.	317.19	11845.77	-
		7. Chloride	N.S.	49.30	1841.15	-

Annexure – III

Ambient Air Quality Monitoring Report 2023-2024

Location	Parameters	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct -23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Average
Location No. 1 (Major Store Adm. Bldg.)	PM _{2.5} (µg/M ³)	25.25	23.50	23.88	20.38	19.00	20.50	23.13	21.63	20.25	24.25	30.63	31.57	23.66
	PM ₁₀ (µg/M ³)	78.13	73.38	78.38	70.63	66.83	66.38	81.63	86.63	79.00	90.25	92.88	92.14	79.69
	SO ₂ (µg/M ³)	18.10	21.51	20.63	18.30	20.75	19.28	21.28	19.26	20.35	19.40	21.04	22.33	20.18
	NOx (µg/M ³)	22.85	25.56	28.05	25.49	27.38	24.99	27.16	30.19	30.49	31.80	33.04	37.70	28.72
	Ozone(µg/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	Lead (µg/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	CO (mg/M ³)	0.92	0.85	0.89	0.84	0.92	0.94	1.06	1.08	1.08	1.11	1.12	1.34	1.01
	NH ₃ (mg/M ³)	30.25	30.13	26.11	30.00	30.00	29.25	30.50	30.13	31.63	30.75	30.38	31.29	30.03
	Benzene(µg/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	BaP(ng/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	Arsenic(ng/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	Nickel(ng/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Location No. 2 (Colony E/M Office)	PM _{2.5} (µg/M ³)	16.25	16.88	16.25	15.50	15.50	14.88	17.00	15.50	15.38	15.88	25.75	20.00	17.06
	PM ₁₀ (µg/M ³)	65.25	57.00	62.13	43.75	43.83	48.00	68.63	64.50	56.75	82.63	79.75	82.43	62.89
	SO ₂ (µg/M ³)	13.28	15.38	13.55	14.58	13.93	13.14	13.84	14.31	13.99	13.98	15.36	17.21	14.38
	NOx (µg/M ³)	17.49	21.05	20.00	20.84	19.75	19.45	19.91	20.36	18.79	19.73	22.65	23.87	20.32
	Ozone(µg/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	Lead (µg/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	CO (mg/M ³)	0.66	0.66	0.66	0.60	0.66	0.62	0.84	0.68	0.76	0.68	0.75	0.80	0.70
	NH ₃ (mg/M ³)	25.00	25.50	26.00	25.38	25.17	25.50	25.88	24.50	25.75	24.00	25.50	26.14	25.36
	Benzene(µg/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	Bap(ng/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	Arsenic(ng/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	Nickel(ng/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Location No. 3 (Chummary)	PM _{2.5} (µg/M ³)	19.50	19.25	19.00	17.75	16.67	18.25	19.50	17.88	17.00	19.63	25.00	21.00	19.20
	PM ₁₀ (µg/M ³)	62.50	64.88	66.25	48.25	40.33	52.25	63.75	73.13	54.38	75.25	63.00	78.43	61.87
	SO ₂ (µg/M ³)	15.01	19.23	17.34	13.48	13.43	12.83	14.70	13.71	13.94	12.84	17.71	17.84	15.17
	NOx (µg/M ³)	18.45	21.89	22.41	19.86	17.68	20.38	20.03	19.06	18.30	17.94	22.14	21.17	19.94
	Ozone(µg/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	Lead (µg/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	CO (mg/M ³)	0.81	0.72	0.81	0.69	0.84	0.83	1.03	1.03	1.04	1.05	1.08	1.11	0.92
	NH ₃ (mg/M ³)	27.00	27.50	28.25	27.63	27.67	27.13	28.88	27.50	29.75	27.50	28.63	28.57	28.00
	Benzene(µg/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	Bap(ng/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	Arsenic(ng/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	Nickel(ng/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Note : (1) ND = Not Detectable, (2) Location No. 1 – Major Store – SE Direction, Location No. 2 – Colony E/M Office – NW Direction
 Location No. 3 – Chummary – NE Direction, Location No. 4 – Railway Cabin U#8 & 9 – SE Direction,
 Location No. 5 - ETP U#8 & 9 – SW Direction

Location	Parameters	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct -23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Average
Location No. 4 (Railway Cabin U# 8 & 9)	PM _{2.5} (µg/M ³)	20.50	20.88	21.13	19.00	18.17	19.00	19.63	18.50	19.25	21.38	29.75	21.57	20.73
	PM ₁₀ (µg/M ³)	71.50	64.25	77.50	67.13	61.33	59.88	64.38	78.25	71.88	83.50	86.63	85.43	72.64
	SO ₂ (µg/M ³)	17.83	19.63	20.23	17.96	19.33	18.88	18.50	16.91	19.17	17.64	19.34	20.11	18.79
	NO _x (µg/M ³)	21.38	23.60	27.15	23.42	22.80	22.89	22.75	24.28	24.29	26.48	28.74	26.24	24.50
	Ozone(µg/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	Lead (µg/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	CO (mg/M ³)	0.82	0.80	0.84	0.74	0.84	0.86	0.89	0.99	1.00	0.98	0.99	1.01	0.90
	NH ₃ (mg/M ³)	27.38	27.88	28.88	26.88	27.17	28.25	28.38	28.00	29.75	28.13	28.25	28.57	28.12
	Benzene(µg/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	Bap(ng/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	Arsenic(ng/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Location No.5 ETP U# 8 & 9	Nickel(ng/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	PM _{2.5} (µg/M ³)	22.88	22.75	21.75	21.13	21.17	19.63	20.50	20.38	21.13	22.50	29.38	22.00	22.10
	PM ₁₀ (µg/M ³)	74.63	68.63	79.63	67.13	65.33	64.63	67.13	74.25	68.63	82.00	88.25	84.71	73.74
	SO ₂ (µg/M ³)	16.76	20.70	20.59	18.94	17.13	15.94	15.80	17.08	15.71	14.18	17.63	20.23	17.56
	NO _x (µg/M ³)	20.58	25.48	29.48	24.45	21.60	23.49	24.98	21.69	21.95	21.15	24.48	25.30	23.72
	Ozone(µg/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	Lead (µg/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	CO (mg/M ³)	0.82	0.84	0.87	0.77	0.82	0.87	0.88	0.94	0.96	0.96	0.99	1.01	0.89
	NH ₃ (mg/M ³)	28.00	28.50	28.88	27.75	28.00	28.38	28.38	28.00	28.63	28.00	28.13	28.43	28.25
	Benzene(µg/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	Bap(ng/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	Arsenic(ng/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	Nickel(ng/M ³)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Limits as per NAAQMS:-

Parameters	Industrial		Sensitive	
	On 24 hr. basis	On Annual basis	On 24 hr. basis	On Annual basis
PM ₁₀ (µg/M ³)	100	60	100	60
PM _{2.5} (µg/M ³)	60	40	60	40
SO ₂ (µg/M ³)	80	50	80	20
NO _x (µg/M ³)	80	40	80	30
Ozone(µg/M ³)	180 (1 Hrs.)	100 (8 Hrs.)	180 (1 Hrs.)	100 (8 Hrs.)
Lead (µg/M ³)	1.00	0.50	1.00	0.50
CO (mg/M ³)	04 (1 Hrs.)	02 (8 Hrs.)	04 (1 Hrs.)	02 (8 Hrs.)
NH ₃ (mg/M ³)	400	100	400	100
Benzene (µg/M ³)	-	5.0	-	5.0
Bap(ng/M ³)	-	1.0	-	1.0
Arsenic(ng/M ³)	-	6.0	-	6.0
Nickel(ng/M ³)	-	20.0	-	20.0

Annexure – IV
Physio-chemical Properties of Ash

Minerals in form of Oxides :-

Minerals	Percentage (%)
1 Silica as SiO ₂	62.35
2. Aluminium as Al ₂ O ₃	25.7
3. Iron as Fe ₂ O ₃	6.07
4. Titanium as TiO ₂	1.70
5. Calcium as CaO	2.39
6. Magnesium as MgO	0.651
7. Sodium as Na ₂ O	0.086
8. Potassium as K ₂ O	0.251
9. Sulphite as SO ₃	0.292
10. Phosphorous Pent oxide as P ₂ O ₅	0.094

- Parameters are analyzed by MOEF approved agency M/s. Mahabal Enviro Engineers Pvt. Ltd. Nagpur.

Annexure - V

Composition of Sludge from ETP – I, II, III & IV

Annual average value for ETP-I, II, III & IV (2025-26) :-

Sr. No.	Parameters	MPCB Limit	Average value of ETP I, II,III & IV
1.	Sulphate as SO ₄	1000 mg/kg	804.86 mg/kg
2.	Chloride as Cl	1000 mg/kg	373.76 mg/kg
3.	Mixture of Toxic Metals (Cu+Ni+Cr+Zn+Cd)	25.0 mg/kg	2.49 mg/kg
4.	Lead as Pb	1.0 mg/kg	0.135
5.	Mercury as Hg	0.01 mg/kg	BDL

- Parameters are analyzed by MOEF approved agency M/s. Mahabal Enviro Engineers Pvt. Ltd. Nagpur.



Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

FORM V

(See Rule 14)

Environmental Audit Report for the financial Year ending the 31st March 2026

Unique Application Number

MPCB-ENVIRONMENT_STATEMENT-0000094042

Submitted Date

30-06-2026

PART A

Company Information

Company Name

Chandrapur Super Thermal Power Station
Chandrapur

Application UAN number

MPCBCONSENT-
0000274332/CR/2605000040

Address

O/o Chief Engineer, Chandrapur Super Thermal
Power Station, MSPGCL, Mauza Dewai, 1 to
16, Govindpur, Rayyatawari, Urjanagar, Tal & Dist-
Chandrapur.

Plot no

1 to 16 , Mouza Dewai

Taluka

Chandrapur

Village

Urjanagar

Capital Investment (In lakhs)

1205600

Scale

Large

City

Chandrapur

Pincode

442404

Person Name

Chief Engineer(O&M)

Designation

Chief Engineer

Telephone Number

7172220156

Fax Number

7172220203

Email

envcellcstps@mahagenco.in

Region

SRO-Chandrapur

Industry Category

Red

Industry Type

R48 Thermal Power Plants

Last Environmental statement submitted online

yes

Consent Number

MPCBCONSENT-
0000274332/CR/2605000040

Consent Issue Date

2026-05-03

Consent Valid Upto

2027-05-31

Establishment Year

1986

Date of last environment statement submitted

Aug 5 2025 12:00:00:000AM

Industry Category Primary (STC Code) & Secondary (STC Code)

Product Information

Product Name

Electricity Generation

Consent Quantity

2920

Actual Quantity

1652.60

UOM

Mwh

Transportation of Coal by Closed Pipe Conveyor System

2190000

1003287

Ton/Y

By-product Information

By Product Name

NA

Consent Quantity

0

Actual Quantity

00

UOM

Nos./Y

Part-B (Water & Raw Material Consumption)

<u>1) Water Consumption in m3/day</u>		
Water Consumption for Process	Consent Quantity in m3/day	Actual Quantity in m3/day
	157800.00	33968.00
Cooling	198716.00	92776.00
Domestic	17980.00	13743.00
All others	100.00	0.00
Total	374596.00	140487.00

<u>2) Effluent Generation in CMD / MLD</u>			
Particulars	Consent Quantity	Actual Quantity	UOM
Trade Effluent from factory	69000	51798	CMD
Sewage Effluent	5784	3418	CMD

<u>2) Product Wise Process Water Consumption (cubic meter of process water per unit of product)</u>			
Name of Products (Production)	During the Previous financial Year	During the current Financial year	UOM
Boiler Feed/Make up	5078	3672	CMD
Cooling water	93850	92776	CMD
Ash Disposal	23616	20667	CMD
Pre & Post treatment	7992	7429	CMD
Domestic	14056	13743	CMD
Fire Fighting & Gardening	2200	2200	CMD

<u>3) Raw Material Consumption (Consumption of raw material per unit of product)</u>			
Name of Raw Materials	During the Previous financial Year	During the current Financial year	UOM
Hydrochloric acid	2083	1792.82	MT/A
Caustic Soda Lye	380.64	329.59	MT/A
Grease	38211	4257.2	Kg/Annum
Lubrication oil	533.84	288.20	KL/A
Auxiliary Power	151.40	150.60	Mwh

<u>4) Fuel Consumption</u>			
Fuel Name	Consent quantity	Actual Quantity	UOM
Coal	15759240	11671798	MT/A
FO	0	15803.82	KL/A
LDO	0	5204.18	KL/A

Part-C

<u>Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)</u>			
<u>[A] Water</u>			
Pollutants Detail	Quantity of Pollutants discharged (KL/day)	Concentration of Pollutants discharged(Mg/Lit) Except PH,Temp,Colour	Percentage of variation from prescribed standards with reasons

	Quantity	Concentration	%variation	Standard	Reason
pH	0	7.83	within limit	6.5-8.5	No variation
TSS	425.20	20.55	within limit	6.5-8.5	No variation
BOD	226.59	8.22	within limit	6.5-8.5	No variation
COD	750.13	29.09	within limit	6.5-8.5	No variation
TDS	16091	317.19	within limit	6.5-8.5	No variation

[B] Air (Stack)

Pollutants Detail	Quantity of Pollutants discharged (kL/day)	Concentration of Pollutants discharged(Mg/NM3)	Percentage of variation from prescribed standards with reasons	Standard	Reason
	Quantity	Concentration	%variation		
Particulate matter U#3-7	4396.80	83.40	within limit	100 mg/Nm3	No variation
Particulate matter U#8-9	996.72	24.45	within limit	100 mg/Nm3	No variation

Part-D

HAZARDOUS WASTES

1) From Process

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
5.1 Used or spent oil	59.85	127.49	KL/A
Other Hazardous Waste	12.78	152.47	MT/A
Other Hazardous Waste	26.26	154.10	MT/A

2) From Pollution Control Facilities

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
0	0	0	Nos./Y

Part-E

SOLID WASTES

1) From Process

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
Fly or Bottom ash	4607449	4394627	MT/A

2) From Pollution Control Facilities

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
NA	0	0	Nos./Y

3) Quantity Recycled or Re-utilized within the unit

Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
0	1991458	1839830	MT/A

Part-F

Please specify the characteristics(in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

1) Hazardous Waste

Type of Hazardous Waste Generated	Qty of Hazardous Waste	UOM	Concentration of Hazardous Waste
5.1 Used or spent oil	127.49	KL/A	Send to Authorised Recycler/Re-processor
Other Hazardous Waste	152.47	MT/A	Send to CHWTSDF
Other Hazardous Waste	154.10	MT/A	Send to CHWTSDF

2) Solid Waste

Type of Solid Waste Generated	Qty of Solid Waste	UOM	Concentration of Solid Waste
Fly/Bottom ash	4394627	MT/A	1839830 MT given to cement & bricks manufacturer & remaining stored in ash bund

Part-G

Impact of the pollution Control measures taken on conservation of natural resources and consequently on the cost of production.

Description	Reduction in Water Consumption (M3/day)	Reduction in Fuel & Solvent Consumption (KL/day)	Reduction in Raw Material (Kg)	Reduction in Power Consumption (KWH)	Capital Investment(in Lacs)	Reduction in Maintenance(in Lacs)
Conservation of natural resources	6305	6171.4	500530	7	6691.74	750.12

Part-H

Additional measures/investment proposal for environmental protection abatement of pollution, prevention of pollution.

[A] Investment made during the period of Environmental Statement

Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)
NA	NA	0

[B] Investment Proposed for next Year

Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)
Construction od RCC Channel structure to avoid water contamination in Ranvendali Nallah	To avoid water contamination in Ranvendali Nallah	246.40
Tree plantation to maintain environmental balance	To maintain environmental balance in Chandrapur district.	206.08

Part-I

Any other particulars for improving the quality of the environment.

Particulars

Expenditure of incurred on promoting and facilitating ash utilisation system Rs. 1249.77 Lacs to improve ash utilization.

Name & Designation

NA

UAN No:

MPCB-ENVIRONMENT_STATEMENT-0000094042

Submitted On:

30-06-2026



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



CO-2198260327

Report No.:	ME-2198260327	Date: 14.04.2026
ULR No.:	TC748726000007680F	

Name and Address of Customer	CHANDRAPUR SUPER THERMAL POWER STATION Urjanagar, Chandrapur Dist: Chandrapur – 442 404.		WO No.: CSTPS/4500141513/ 005147 WO Date: 24.03.2025
Sample Description / Type	Coal	Sampling Done by	Customer
Sampling Location	Bunker Coal Unit No 3 & 4 Composite	Sample Quantity / Packing	1 kg X 1 No. Polythene Bag
Date of Sampling	26.03.2026	Date of Receipt of Sample	27.03.2026
Sampling Procedure	Sample Tested as received		
Date of Start of Analysis	30.03.2026	Date of Completion of Analysis	14.04.2026

Sr. No.	Parameter	Unit	Result	Method Reference
	<u>Discipline: Chemical Testing;</u> <u>Product Group: Solid Fuel (Coal)</u>			
1.	Mercury (as Hg)	mg/kg	0.16	IS 16721 (Part I): 2018

END OF REPORT

- Note:**
1. BQL: Below Quantification Limit.
 2. LOQ: Limit of Quantification.
 3. ADB: Air Dry Basis.
 4. Mercury expressed as % by weight of coal (on ADB).
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Issue No 03
Date 05.12.2019.
Amd 03 Date
18.07.2023

Reviewed and
authorised by

Harish Mendhi

Harish Mendhi
Technical Manager
Chemical Testing



TC-7487



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



CO-2198260327

Report No.:	ME-2198260327N	Date:	14.04.2026
ULR No.:	-		

Name and Address of Customer	CHANDRAPUR SUPER THERMAL POWER STATION Urjanagar, Chandrapur Dist: Chandrapur – 442 404.		WO No.: CSTPS/4500141513/ 005147 WO Date: 24.03.2025
Sample Description / Type	Coal	Sampling Done by	Customer
Sampling Location	Bunker Coal Unit No 3 & 4 Composite	Sample Quantity / Packing	1 kg X 1 No. Polythene Bag
Date of Sampling	26.03.2026	Date of Receipt of Sample	27.03.2026
Sampling Procedure	Sample Tested as received		
Date of Start of Analysis	30.03.2026	Date of Completion of Analysis	14.04.2026

Sr. No.	Parameter	Unit	Result	Method Reference
	<u>Discipline: Chemical Testing;</u> <u>Product Group: Solid Fuel (Coal)</u>			
1.	Arsenic (as As)	mg/kg	0.67	ASTM-D 4606
2.	Nickel (as Ni)	mg/kg	15.34	ASTM-D 6357
3.	Cadmium (as Cd)	mg/kg	BQL (LOQ:2)	ASTM-D 6357
4.	Chromium (as Cr)	mg/kg	39.49	ASTM-D 6357
5.	Lead (as Pb)	mg/kg	6.34	ASTM-D 6357

END OF REPORT

- Note:**
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Harish Mendhi

Harish Mendhi
Technical Manager
Chemical Testing





Mahabal Enviro Engineers Pvt. Ltd.

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

TEST REPORT



CO-2199260327

Report No.:	ME-2199260327	Date: 14.04.2026
ULR No.:	TC748726000007681F	

Name and Address of Customer	CHANDRAPUR SUPER THERMAL POWER STATION Urjanagar, Chandrapur Dist: Chandrapur – 442 404.		WO No.: CSTPS/4500141513/ 005147 WO Date: 24.03.2025
Sample Description / Type	Coal	Sampling Done by	Customer
Sampling Location	Bunker Coal Unit No 5	Sample Quantity / Packing	1 kg X 1 No. Polythene Bag
Date of Sampling	26.03.2026	Date of Receipt of Sample	27.03.2026
Sampling Procedure	Sample Tested as received		
Date of Start of Analysis	30.03.2026	Date of Completion of Analysis	14.04.2026

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Solid Fuel (Coal)			
1.	Mercury (as Hg)	mg/kg	0.14	IS 16721 (Part I): 2018

END OF REPORT

- Note:**
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18.07.2023

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TC-7487



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



CD-2199260327

Report No.:	ME-2199260327N	Date:	14.04.2026
ULR No.:	-		

Name and Address of Customer	CHANDRAPUR SUPER THERMAL POWER STATION Urjanagar, Chandrapur Dist: Chandrapur – 442 404.		WO No.: CSTPS/4500141513/ 005147 WO Date: 24.03.2025
Sample Description / Type	Coal	Sampling Done by	Customer
Sampling Location	Bunker Coal Unit No 5	Sample Quantity / Packing	1 kg X 1 No. Polythene Bag
Date of Sampling	26.03.2026	Date of Receipt of Sample	27.03.2026
Sampling Procedure	Sample Tested as received		
Date of Start of Analysis	30.03.2026	Date of Completion of Analysis	14.04.2026

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Solid Fuel (Coal)			
1.	Arsenic (as As)	mg/kg	0.62	ASTM-D 4606
2.	Nickel (as Ni)	mg/kg	17.23	ASTM-D 6357
3.	Cadmium (as Cd)	mg/kg	BQL (LOQ:2)	ASTM-D 6357
4.	Chromium (as Cr)	mg/kg	46.26	ASTM-D 6357
5.	Lead (as Pb)	mg/kg	9.25	ASTM-D 6357

END OF REPORT

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Harish Mendhi
Technical Manager
Chemical Testing





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

TEST REPORT



CO-2200260327

Report No.:	ME-2200260327	Date:	14.04.2026
ULR No.:	TC748726000007682F		

Name and Address of Customer	CHANDRAPUR SUPER THERMAL POWER STATION Urjanagar, Chandrapur Dist: Chandrapur – 442 404.		WO No.: CSTPS/4500141513/ 005147 WO Date: 24.03.2025
Sample Description / Type	Coal	Sampling Done by	Customer
Sampling Location	Bunker Coal Unit No 6	Sample Quantity / Packing	1 kg X 1 No. Polythene Bag
Date of Sampling	26.03.2026	Date of Receipt of Sample	27.03.2026
Sampling Procedure	Sample Tested as received		
Date of Start of Analysis	30.03.2026	Date of Completion of Analysis	14.04.2026

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Solid Fuel (Coal)			
1.	Mercury (as Hg)	mg/kg	0.14	IS 16721 (Part I): 2018

END OF REPORT

- Note:**
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TC-7487



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

TEST REPORT



CO-2290260327

Report No.:	ME-2200260327N	Date:	14.04.2026
ULR No.:	-		

Name and Address of Customer	CHANDRAPUR SUPER THERMAL POWER STATION Urjanagar, Chandrapur Dist: Chandrapur – 442 404.		WO No.: CSTPS/4500141513/ 005147 WO Date: 24.03.2025
Sample Description / Type	Coal	Sampling Done by	Customer
Sampling Location	Bunker Coal Unit No. 6	Sample Quantity / Packing	1 kg X 1 No. Polythene Bag
Date of Sampling	26.03.2026	Date of Receipt of Sample	27.03.2026
Sampling Procedure	Sample Tested as received		
Date of Start of Analysis	30.03.2026	Date of Completion of Analysis	14.04.2026

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Solid Fuel (Coal)			
1.	Arsenic (as As)	mg/kg	0.71	ASTM-D 4606
2.	Nickel (as Ni)	mg/kg	16.08	ASTM-D 6357
3.	Cadmium (as Cd)	mg/kg	BQL (LOQ:2)	ASTM-D 6357
4.	Chromium (as Cr)	mg/kg	40.57	ASTM-D 6357
5.	Lead (as Pb)	mg/kg	7.40	ASTM-D 6357

END OF REPORT

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

TEST REPORT



CO-2201260327

Report No.:	ME-2201260327	Date: 14.04.2026
ULR No.:	TC748726000007683F	

Name and Address of Customer	CHANDRAPUR SUPER THERMAL POWER STATION Urjanagar, Chandrapur Dist: Chandrapur – 442 404.		WO No.: CSTPS/4500141513/ 005147 WO Date: 24.03.2025
Sample Description / Type	Coal	Sampling Done by	Customer
Sampling Location	Bunker Coal Unit No 7	Sample Quantity / Packing	1 kg X 1 No. Polythene Bag
Date of Sampling	26.03.2026	Date of Receipt of Sample	27.03.2026
Sampling Procedure	Sample Tested as received		
Date of Start of Analysis	30.03.2026	Date of Completion of Analysis	14.04.2026

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Solid Fuel (Coal)			
1.	Mercury (as Hg)	mg/kg	0.12	IS 16721 (Part I): 2018

END OF REPORT

- Note:**
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 3. ADB: Air Dry Basis.
 4. Mercury expressed as % by weight of coal (on ADB).
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18.07.2023

Reviewed and
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Harish Mendhi

Harish Mendhi
Technical Manager
Chemical Testing



TC-7487



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



CO-2201260327

Report No.:	ME-2201260327N	Date:	14.04.2026
ULR No.:	-		

Name and Address of Customer	CHANDRAPUR SUPER THERMAL POWER STATION Urjanagar, Chandrapur Dist: Chandrapur – 442 404.		WO No.: CSTPS/4500141513/ 005147 WO Date: 24.03.2025
Sample Description / Type	Coal	Sampling Done by	Customer
Sampling Location	Bunker Coal Unit No. 7	Sample Quantity / Packing	1 kg X 1 No. Polythene Bag
Date of Sampling	26.03.2026	Date of Receipt of Sample	27.03.2026
Sampling Procedure	Sample Tested as received		
Date of Start of Analysis	30.03.2026	Date of Completion of Analysis	14.04.2026

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Solid Fuel (Coal)			
1.	Arsenic (as As)	mg/kg	0.53	ASTM-D 4606
2.	Nickel (as Ni)	mg/kg	15.59	ASTM-D 6357
3.	Cadmium (as Cd)	mg/kg	BQL (LOQ:2)	ASTM-D 6357
4.	Chromium (as Cr)	mg/kg	41.67	ASTM-D 6357
5.	Lead (as Pb)	mg/kg	7.56	ASTM-D 6357

END OF REPORT

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

TEST REPORT



CO-2202260327

Report No.:	ME-2202260327	Date: 14.04.2026
ULR No.:	TC748726000007684F	

Name and Address of Customer	CHANDRAPUR SUPER THERMAL POWER STATION Urjanagar, Chandrapur Dist: Chandrapur – 442 404.		WO No.: CSTPS/4500141513/ 005147 WO Date: 24.03.2025
Sample Description / Type	Coal	Sampling Done by	Customer
Sampling Location	Bunker Coal Unit No 8	Sample Quantity / Packing	1 kg X 1 No. Polythene Bag
Date of Sampling	26.03.2026	Date of Receipt of Sample	27.03.2026
Sampling Procedure	Sample Tested as received		
Date of Start of Analysis	30.03.2026	Date of Completion of Analysis	14.04.2026

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Solid Fuel (Coal)			
1.	Mercury (as Hg)	mg/kg	0.16	IS 16721 (Part I): 2018

END OF REPORT

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TEST REPORT



CO-2202260327

Report No.:	ME-2202260327N	Date: 14.04.2026
ULR No.:	-	

Name and Address of Customer	CHANDRAPUR SUPER THERMAL POWER STATION Urjanagar, Chandrapur Dist: Chandrapur – 442 404.		WO No.: CSTPS/4500141513/ 005147 WO Date: 24.03.2025
Sample Description / Type	Coal	Sampling Done by	Customer
Sampling Location	Bunker Coal Unit No. 8	Sample Quantity / Packing	1 kg X 1 No. Polythene Bag
Date of Sampling	26.03.2026	Date of Receipt of Sample	27.03.2026
Sampling Procedure	Sample Tested as received		
Date of Start of Analysis	30.03.2026	Date of Completion of Analysis	14.04.2026

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Solid Fuel (Coal)			
1.	Arsenic (as As)	mg/kg	0.57	ASTM-D 4606
2.	Nickel (as Ni)	mg/kg	13.03	ASTM-D 6357
3.	Cadmium (as Cd)	mg/kg	BQL (LOQ:2)	ASTM-D 6357
4.	Chromium (as Cr)	mg/kg	34.91	ASTM-D 6357
5.	Lead (as Pb)	mg/kg	6.40	ASTM-D 6357

END OF REPORT

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

TEST REPORT



CO-2203260327

Report No.:	ME-2203260327	Date: 14.04.2026
ULR No.:	TC748726000007685F	

Name and Address of Customer	CHANDRAPUR SUPER THERMAL POWER STATION Urjanagar, Chandrapur Dist: Chandrapur – 442 404.		WO No.: CSTPS/4500141513/ 005147 WO Date: 24.03.2025
Sample Description / Type	Coal	Sampling Done by	Customer
Sampling Location	Bunker Coal Unit No 9	Sample Quantity / Packing	1 kg X 1 No. Polythene Bag
Date of Sampling	26.03.2026	Date of Receipt of Sample	27.03.2026
Sampling Procedure	Sample Tested as received		
Date of Start of Analysis	30.03.2026	Date of Completion of Analysis	14.04.2026

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Solid Fuel (Coal)			
1.	Mercury (as Hg)	mg/kg	0.18	IS 16721 (Part I): 2018

END OF REPORT

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

TEST REPORT



CO-2203260327

Report No.:	ME-2203260327N	Date: 14.04.2026
ULR No.:	-	

Name and Address of Customer	CHANDRAPUR SUPER THERMAL POWER STATION Urjanagar, Chandrapur Dist: Chandrapur – 442 404.		WO No.: CSTPS/4500141513/ 005147 WO Date: 24.03.2025
Sample Description / Type	Coal	Sampling Done by	Customer
Sampling Location	Bunker Coal Unit No. 9	Sample Quantity / Packing	1 kg X 1 No. Polythene Bag
Date of Sampling	26.03.2026	Date of Receipt of Sample	27.03.2026
Sampling Procedure	Sample Tested as received		
Date of Start of Analysis	30.03.2026	Date of Completion of Analysis	14.04.2026

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Solid Fuel (Coal)			
1.	Arsenic (as As)	mg/kg	0.67	ASTM-D 4606
2.	Nickel (as Ni)	mg/kg	12.88	ASTM-D 6357
3.	Cadmium (as Cd)	mg/kg	BQL (LOQ:2)	ASTM-D 6357
4.	Chromium (as Cr)	mg/kg	31.93	ASTM-D 6357
5.	Lead (as Pb)	mg/kg	4.91	ASTM-D 6357

END OF REPORT

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



ASH-2204260327

TEST REPORT

Report No.:	ME-2204260327	Date:	21.04.2026
ULR No.:	TC748726000008181F		

Name and Address of Customer	CHANDRAPUR SUPER THERMAL POWER STATION Urjanagar, Chandrapur Dist: Chandrapur – 442 404.		WO No.: CSTPS/4500141513/ 005147 WO Date: 24.03.2025
Sample Description / Type	ASH Sample	Sampling Done by	Customer
Sampling Location	Fly Ash Unit No #3 and 4 composite	Sample Quantity / Packing	1 kg X 1 No. Polythene Bag
Date of Sampling	26.03.2026	Date of Receipt of Sample	27.03.2026
Sampling Procedure	Sample tested as received		
Date of Start of Analysis	30.03.2026	Date of Completion of Analysis	16.04.2026

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Building Material (Fly Ash)			
1.	Silica (as SiO ₂)	%	62.35	IS 1727-1967
2.	Iron Oxide (as Fe ₂ O ₃)	%	6.07	IS 1727-1967
3.	Aluminum Oxide (as Al ₂ O ₃)	%	25.7	IS 1727-1967
4.	Calcium Oxide (CaO)	%	2.39	IS 1727-1967
5.	Sulphur Trioxide (as SO ₃)	%	0.292	IS 1727-1967
6.	Potassium Oxide (as K ₂ O)	%	0.251	ASTM-C-114: 2018
7.	Sodium Oxide (as Na ₂ O)	%	0.086	ASTM-C-114: 2018
8.	Titanium Oxide (as TiO ₂)	%	1.70	ASTM-C-114: 2018
9.	Phosphorous Pentoxide (as P ₂ O ₅)	%	0.094	ASTM-C-114: 2018
10.	Magnesium Oxide (as MgO)	%	0.651	IS 1727-1967

END OF REPORT

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



ASH-2205260327

TEST REPORT

Report No.:	ME-2205260327	Date: 21.04.2026
ULR No.:	TC748726000008182F	

Name and Address of Customer	CHANDRAPUR SUPER THERMAL POWER STATION Urjanagar, Chandrapur Dist: Chandrapur – 442 404.		WO No.: CSTPS/4500141513/ 005147 WO Date: 24.03.2025
Sample Description / Type	ASH Sample	Sampling Done by	Customer
Sampling Location	Fly Ash Unit No #5	Sample Quantity / Packing	1 kg X 1 No. Polythene Bag
Date of Sampling	26.03.2026	Date of Receipt of Sample	27.03.2026
Sampling Procedure	Sample tested as received		
Date of Start of Analysis	30.03.2026	Date of Completion of Analysis	17.04.2026

Sr. No.	Parameter	Unit	Result	Method Reference
	<u>Discipline: Chemical Testing;</u> <u>Product Group: Building Material</u> <u>(Fly Ash)</u>			
1.	Silica (as SiO ₂)	%	62.43	IS 1727-1967
2.	Iron Oxide (as Fe ₂ O ₃)	%	5.83	IS 1727-1967
3.	Aluminum Oxide (as Al ₂ O ₃)	%	25.50	IS 1727-1967
4.	Calcium Oxide (CaO)	%	2.52	IS 1727-1967
5.	Sulphur Trioxide (as SO ₃)	%	0.271	IS 1727-1967
6.	Potassium Oxide (as K ₂ O)	%	0.340	ASTM-C-114: 2018
7.	Sodium Oxide (as Na ₂ O)	%	0.069	ASTM-C-114: 2018
8.	Titanium Oxide (as TiO ₂)	%	1.84	ASTM-C-114: 2018
9.	Phosphorous Pentoxide (as P ₂ O ₅)	%	0.112	ASTM-C-114: 2018
10.	Magnesium Oxide (as MgO)	%	0.735	IS 1727-1967

END OF REPORT

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TEST REPORT



ASH-2206260327

Report No.:	ME-2206260327	Date: 21.04.2026
ULR No.:	TC748726000008183F	

Name and Address of Customer	CHANDRAPUR SUPER THERMAL POWER STATION Urjanagar, Chandrapur Dist: Chandrapur – 442 404.		WO No.: CSTPS/4500141513/ 005147 WO Date: 24.03.2025
Sample Description / Type	ASH Sample	Sampling Done by	Customer
Sampling Location	Fly Ash Unit No #6	Sample Quantity / Packing	1 kg X 1 No. Polythene Bag
Date of Sampling	26.03.2026	Date of Receipt of Sample	27.03.2026
Sampling Procedure	Sample tested as received		
Date of Start of Analysis	30.03.2026	Date of Completion of Analysis	17.04.2026

Sr. No.	Parameter	Unit	Result	Method Reference
	<u>Discipline: Chemical Testing;</u> <u>Product Group: Building Material</u> <u>(Fly Ash)</u>			
1.	Silica (as SiO ₂)	%	61.97	IS 1727-1967
2.	Iron Oxide (as Fe ₂ O ₃)	%	5.51	IS 1727-1967
3.	Aluminum Oxide (as Al ₂ O ₃)	%	26.12	IS 1727-1967
4.	Calcium Oxide (CaO)	%	2.95	IS 1727-1967
5.	Sulphur Trioxide (as SO ₃)	%	0.247	IS 1727-1967
6.	Potassium Oxide (as K ₂ O)	%	0.294	ASTM-C-114: 2018
7.	Sodium Oxide (as Na ₂ O)	%	0.081	ASTM-C-114: 2018
8.	Titanium Oxide (as TiO ₂)	%	1.57	ASTM-C-114: 2018
9.	Phosphorous Pentoxide (as P ₂ O ₅)	%	0.106	ASTM-C-114: 2018
10.	Magnesium Oxide (as MgO)	%	0.695	IS 1727-1967

END OF REPORT

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ASH-2207260327

TEST REPORT

Report No.:	ME-2207260327	Date: 21.04.2026
ULR No.:	TC748726000008184F	

Name and Address of Customer	CHANDRAPUR SUPER THERMAL POWER STATION Urjanagar, Chandrapur Dist: Chandrapur – 442 404.		WO No.: CSTPS/4500141513/005147 WO Date: 24.03.2025
Sample Description / Type	ASH Sample	Sampling Done by	Customer
Sampling Location	Fly Ash Unit No #7	Sample Quantity / Packing	1 kg X 1 No. Polythene Bag
Date of Sampling	26.03.2026	Date of Receipt of Sample	27.03.2026
Sampling Procedure	Sample tested as received		
Date of Start of Analysis	30.03.2026	Date of Completion of Analysis	17.04.2026

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Building Material (Fly Ash)			
1.	Silica (as SiO ₂)	%	63.10	IS 1727-1967
2.	Iron Oxide (as Fe ₂ O ₃)	%	5.35	IS 1727-1967
3.	Aluminum Oxide (as Al ₂ O ₃)	%	25.9	IS 1727-1967
4.	Calcium Oxide (CaO)	%	1.96	IS 1727-1967
5.	Sulphur Trioxide (as SO ₃)	%	0.292	IS 1727-1967
6.	Potassium Oxide (as K ₂ O)	%	0.359	ASTM-C-114: 2018
7.	Sodium Oxide (as Na ₂ O)	%	0.070	ASTM-C-114: 2018
8.	Titanium Oxide (as TiO ₂)	%	1.82	ASTM-C-114: 2018
9.	Phosphorous Pentoxide (as P ₂ O ₅)	%	0.128	ASTM-C-114: 2018
10.	Magnesium Oxide (as MgO)	%	0.557	IS 1727-1967

END OF REPORT

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TEST REPORT



ASH-2208260327

Report No.:	ME-2208260327	Date: 21.04.2026
ULR No.:	TC748726000008185F	

Name and Address of Customer	CHANDRAPUR SUPER THERMAL POWER STATION Urjanagar, Chandrapur Dist: Chandrapur – 442 404.		WO No.: CSTPS/4500141513/ 005147 WO Date: 24.03.2025
Sample Description / Type	ASH Sample	Sampling Done by	Customer
Sampling Location	Fly Ash Unit No #8	Sample Quantity / Packing	1 kg X 1 No. Polythene Bag
Date of Sampling	26.03.2026	Date of Receipt of Sample	27.03.2026
Sampling Procedure	Sample tested as received		
Date of Start of Analysis	30.03.2026	Date of Completion of Analysis	17.04.2026

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Building Material (Fly Ash)			
1.	Silica (as SiO ₂)	%	58.27	IS 1727-1967
2.	Iron Oxide (as Fe ₂ O ₃)	%	6.31	IS 1727-1967
3.	Aluminum Oxide (as Al ₂ O ₃)	%	29.42	IS 1727-1967
4.	Calcium Oxide (CaO)	%	2.54	IS 1727-1967
5.	Sulphur Trioxide (as SO ₃)	%	0.237	IS 1727-1967
6.	Potassium Oxide (as K ₂ O)	%	0.278	ASTM-C-114: 2018
7.	Sodium Oxide (as Na ₂ O)	%	0.051	ASTM-C-114: 2018
8.	Titanium Oxide (as TiO ₂)	%	1.71	ASTM-C-114: 2018
9.	Phosphorous Pentoxide (as P ₂ O ₅)	%	0.083	ASTM-C-114: 2018
10.	Magnesium Oxide (as MgO)	%	0.518	IS 1727-1967

END OF REPORT

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

TEST REPORT



ASH-2209260327

Report No.:	ME-2209260327	Date: 21.04.2026
ULR No.:	TC748726000008186F	

Name and Address of Customer	CHANDRAPUR SUPER THERMAL POWER STATION Urjanagar, Chandrapur Dist: Chandrapur – 442 404.		WO No.: CSTPS/4500141513/ 005147 WO Date: 24.03.2025
Sample Description / Type	ASH Sample	Sampling Done by	Customer
Sampling Location	Fly Ash Unit No #9	Sample Quantity / Packing	1 kg X 1 No. Polythene Bag
Date of Sampling	26.03.2026	Date of Receipt of Sample	27.03.2026
Sampling Procedure	Sample tested as received		
Date of Start of Analysis	30.03.2026	Date of Completion of Analysis	17.04.2026

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Building Material (Fly Ash)			
1.	Silica (as SiO ₂)	%	61.72	IS 1727-1967
2.	Iron Oxide (as Fe ₂ O ₃)	%	5.91	IS 1727-1967
3.	Aluminum Oxide (as Al ₂ O ₃)	%	26.83	IS 1727-1967
4.	Calcium Oxide (CaO)	%	1.96	IS 1727-1967
5.	Sulphur Trioxide (as SO ₃)	%	0.270	IS 1727-1967
6.	Potassium Oxide (as K ₂ O)	%	0.289	ASTM-C-114: 2018
7.	Sodium Oxide (as Na ₂ O)	%	0.080	ASTM-C-114: 2018
8.	Titanium Oxide (as TiO ₂)	%	1.56	ASTM-C-114: 2018
9.	Phosphorous Pentoxide (as P ₂ O ₅)	%	0.126	ASTM-C-114: 2018
10.	Magnesium Oxide (as MgO)	%	0.673	IS 1727-1967

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

Page 1 of 1
QF/SALE/02
Issue No 03
Date 05.12.2019.
Amd 03 Date
18.07.2023

Reviewed and
authorised by

Harish Mendhi

Harish Mendhi
Technical Manager
Chemical Testing



TC-7487

**CHANDRAPUR SUPER THERMAL POWER STATION, CHANDRAPUR
CONTROL MEASURE TO PREVENT FUGITIVE DUST EMISSION**



- Dust Suppression using water canon fogger at LT Bunker Area for 24 hrs.



- Dust Suppression at Reject Coal yard using water canon fogger.



CHANDRAPUR SUPER THERMAL POWER STATION, CHANDRAPUR.For the period of **January 2026 to June 2026****MONTHLY SURFACE WATER ANALYSIS REPORT**

Month	Location of Samples	Except pH, all parameters are in mg/liters									
		pH	TDS	TSS	BOD	COD	Chlorides as Cl	Oil & Grease	Sulphate as SO4	Phosphate as PO4	Total Hardness
Jan-26	Erai River (Down Stream)	8.1	365	20	11.0	38.0	96	BQL	62.8	0.278	192
	Before Erai River	7.8	341	42	11.0	38	36	BQL	65.1	0.236	186
	Ranvendli	8.0	361	40	12.0	42	38	BQL	80.0	0.643	164
	CHP site nallah	8.1	356	27	11.0	40	49.0	BQL	92.6	0.115	176
	Motghat Nallah	8.1	221	39	11	40	29.5	BQL	50.5	0.538	112
Feb-26	Erai River (Down Stream)	7.7	259	6	9.0	34.0	32	BQL	78.4	0.337	168
	Before Erai River	7.3	396	17	12.0	42	81	BQL	80.6	0.536	174
	Ranvendli	7.4	404	15	11.0	38	82	BQL	88.8	0.306	164
	CHP site nallah	7.8	245	7	13.0	45	19.0	BQL	85.5	0.263	134
	Motghat Nallah	7.4	285	16	12	39	47.0	BQL	74.2	0.349	126
Mar-26	Erai River (Down Stream)	7.9	299	13	12.0	42.0	53	BQL	53.8	0.643	156
	Before Erai River	7.9	387	7	9.3	35	69	BQL	46.4	0.928	150
	Ranvendli	7.9	390	23	14.0	48	70	BQL	42.3	0.289	226
	CHP site nallah	8.1	292	46	21.0	68	25.0	BQL	73.6	0.327	150
	Motghat Nallah	7.6	274	11	11	40	41.0	BQL	39.4	0.805	166
Apr-26	Erai River (Down Stream)	7.2	436	11	10.0	36.0	121	BQL	50.2	0.430	156
	Before Erai River	7.4	381	8	12.0	42	106	BQL	51.6	0.318	164
	Ranvendli	7.2	385	12	14.0	48	67	BQL	49.2	0.413	166
	CHP site nallah	7.4	199	33	29.0	96	27.0	BQL	38.1	0.364	100
	Motghat Nallah	7.3	925	15	10	38	428.0	BQL	48.8	0.236	178
May-26	Erai River (Down Stream)	7.9	257	BQL	11.0	39.0	52	BQL	31.7	0.984	112
	Before Erai River	8.0	346	BQL	9.4	34	58	BQL	51.6	0.802	132
	Ranvendli	8.0	353	26	12.0	40	64	BQL	50.4	0.709	142
	CHP site nallah	7.7	239	42	24.0	80	36.0	BQL	36.1	0.535	108
	Motghat Nallah	8.2	525	20	18	60	219	BQL	30.1	0.850	164
Jun-26	Erai River (Down Stream)	7.9	251	9	9.7	36	32.5	BQL	38.9	0.98	114
	Before Erai River	7.9	402	BQL	8.2	32	41.0	BQL	38.7	0.598	176
	Ranvendli	7.6	411	18	9.6	39	36.5	BQL	37.4	0.630	168
	CHP site nallah	8.1	389	13	12.0	40	40.5	BQL	93.2	0.873	194
	Motghat Nallah	8.0	227	10	8.5	32	33.5	BQL	30.1	0.873	88

Note: - BQL=Below Quantification Limit.**Analysis carried out by the MOEF&CC recognized laboratory i.e., M/s. Mahabal Enviro Engineers Pvt Ltd.**



CHANDRAPUR SUPER THERMAL POWER STATION CHANDRAPUR

“IMS: Quality, Environment, Occupational Health & Safety Policy”

ISS/REV.NO.: 02/00

Chandrapur Super Thermal Power Station of MAHAGENCO is committed to generate Economical, Reliable and Sustainable Power and continual improvement of the Integrated Management System through -

- providing environment friendly, safe & healthy working conditions for the prevention of adverse impact on quality, environment and work-related injury and ill health;
- adopting best organizational practices specific to the strategic directions through risks and opportunities analysis for all our processes;
- fulfilling legal and other requirements;
- eliminating quality issues, environmental aspects, occupational health & safety hazards to reduce risks;
- ensuring up gradation of skill, knowledge & competence of our staff and adoption of new technology;
- ensuring consultation and participation of workers/workers' representatives.

Date: 09.04.2021

Chief Engineer
CSTPS, Chandrapur



Certificate of Registration

GCPL hereby certifies that

Reg. No.: IMS110XX32022616

MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED

Chandrapur Super Thermal Power Station Urjanagar, Chandrapur,
Dist. – Chandrapur, Maharashtra, 442 404, India

has been independently assessed and is compliant with the requirement of

Integrated Management System

(ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 50001:2018)

This certificate is applicable to the following product or service ranges:

Generation of Electricity From Coal Based Thermal Power Plant.

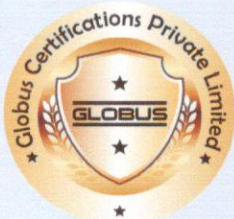
Initial Issue Date : 20. Nov. 2023
Expiry Date : 19. Nov. 2024

Current Issue Date : 20. Nov. 2023
Valid Period : 20. Nov. 2023 ~ 19. Nov. 2026

(Certificate validity is subject to clearing successful surveillance audit)

IMS Integrated
Management
Systems

Signed for and on behalf of GCPL



To verify the validity of this certificate please visit www.gcpl.co

Surveillance audits shall be conducted at least once a calendar year, except in re-certification years. This is to certify that the Management Systems of this company has been found to conform to the above. If the certified client does not allow surveillance, re-certification audits, certificate should be returned to GCPL. This certificate remains the property of GCPL and this certificate is recognized by GCPL.

Globus Certifications Private Limited- www.gcpl.co || info@gcpl.co



Gd01 V2



CERTIFICATE

This is to Certify that the Management System of
**MAHARASHTRA STATE POWER GENERATION
 COMPANY LIMITED**

**CHANDRAPUR SUPER THERMAL POWER STATION URJANAGAR,
 CHANDRAPUR, DIST. – CHANDRAPUR-442404, MAHARASHTRA (INDIA)**

has been audited and found to comply with the requirements of:

**ISO 9001:2015
 Quality Management System**

For the scope of activities described below:

**GENERATION OF ELECTRICITY FROM COAL BASED
 THERMAL POWER PLANT.**

IAF Code: 25

Certificate No: EGQ/2311MT/1450

Date of initial registration	Date of this Certificate	Surv. audit on or before/Certificate expiry	Re-certification Due
22.11.2023	22.11.2023	21.10.2024	21.11.2026

Validity of this certificate is subject to successful completion of surveillance audit on or before due date,
 in case surveillance audit not conducted this certificate shall be suspended/cancelled.

Director

For verification and upated information concerning the present certificate visit to www.thehawk-eye.com

This Certificate is the property of Hawk Eye Certifications Pvt. Ltd. and shall be returned immediately when demanded.





CERTIFICATE

This is to Certify that the Management System of
**MAHARASHTRA STATE POWER GENERATION
 COMPANY LIMITED**

**CHANDRAPUR SUPER THERMAL POWER STATION URJANAGAR,
 CHANDRAPUR, DIST. – CHANDRAPUR-442404, MAHARASHTRA (INDIA)**

has been audited and found to comply with the requirements of:

**ISO 45001:2018
 Occupational Health & Safety Management System**

For the scope of activities described below:

**GENERATION OF ELECTRICITY FROM COAL BASED
 THERMAL POWER PLANT.**

IAF Code: 25

Certificate No: EGO/2311MT/1452

Date of initial registration	Date of this Certificate	Surv. audit on or before/Certificate expiry	Re-certification Due
22.11.2023	22.11.2023	21.10.2024	21.11.2026

Validity of this certificate is subject to successful completion of surveillance audit on or before due date,
 in case surveillance audit not conducted this certificate shall be suspended/cancelled.

Director

For verification and updated information concerning the present certificate visit to www.thehawk-eye.com
 This Certificate is the property of Hawk Eye Certifications Pvt. Ltd. and shall be returned immediately when demanded.

Hawk Eye Certifications Private Limited
 A-27/H, Sector-16, Noida-201301, U.P., (India)
www.thehawk-eye.com
 email: admin@thehawk-eye.com





CERTIFICATE

This is to Certify that the Management System of
**MAHARASHTRA STATE POWER GENERATION
 COMPANY LIMITED**

**CHANDRAPUR SUPER THERMAL POWER STATION URJANAGAR,
 CHANDRAPUR, DIST. – CHANDRAPUR-442404, MAHARASHTRA (INDIA)**

has been audited and found to comply with the requirements of:

**ISO 14001:2015
 Environment Management System**

For the scope of activities described below:

**GENERATION OF ELECTRICITY FROM COAL BASED
 THERMAL POWER PLANT.**

IAF Code: 25

Certificate No: EGE/2311MT/1451

Date of initial registration	Date of this Certificate	Surv. audit on or before/Certificate expiry	Re-certification Due
22.11.2023	22.11.2023	21.10.2024	21.11.2026

Validity of this certificate is subject to successful completion of surveillance audit on or before due date,
 in case surveillance audit not conducted this certificate shall be suspended/cancelled.

Director

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Hawk Eye Certifications Private Limited
 A-27/H, Sector-16, Noida-201301, U.P., (India)
www.thehawk-eye.com
 email: admin@thehawk-eye.com





National Accreditation Board for
Testing and Calibration Laboratories

CERTIFICATE OF ACCREDITATION

**MWFETL, CHANDRAPUR SUPER THERMAL POWER
STATION, MSPGCL**

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

**"General Requirements for the Competence of Testing &
Calibration Laboratories"**

for its facilities at

CSTPS, URJANAGAR, CHANDRAPUR, MAHARASHTRA, INDIA

in the field of

TESTING

Certificate Number: TC-6526

Issue Date: 28/02/2026

Valid Until: 27/02/2030

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Entity: MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED

Signed for and on behalf of NABL



Anuja Anand
Director

Dr. Ramanand N. Shukla
Chief Executive Officer

Annexure XIX

Cladding at Junction house – JH01



Cladding at DST-02



Cladding at PC tail end, BC-04, BC-02 & WLS



Cladding at Surge Hopper at Bhatadi



DSS sprinklers at BC-01 Head end



DSS sprinklers at BC-01 Tail end



DSS sprinklers at PC-01 Tail end



DSS sprinklers at Apron Feeder



DSS sprinklers at BC-04 Tail end



DSS sprinklers at BC-02 Head end



DSS sprinklers at BC-02 Tail end



DSS sprinklers at PC Head end



DSS sprinklers at Reversible belt Feeder BC-03 at WLS



DSS sprinklers at WLS / Clam shell gate

