Kamlesh Kr Jha

From: Kamlesh Kr Jha
Sent: 27 May 2025 17:03
To: ro.ranchi-mef@gov.in; 'ranchijspcb@gmail.com'; zokolkatta.cpcb@nic.in
Cc: JSPCB, Jamshedpur
Subject: Submission of Half yearly compliance status report (Unit I) for the period – October 2024 to March 2025,-Reg.
Attachments: Annexure XVI-Environment Statement -Unit I - Submission Letter.pdf; Annexure XV-EC compliance Half Yearly -Unit I (April 24 -September 24).pdf; Annexure X-LDO Test report.pdf; Annexure XIV-EMC Cell (2).pdf; Annexure XII-Noise Monitoring(Workzone) -March 2025.pdf; Annexure XII-Noise Monitoring(Ambient) -March 2025.pdf; Annexure XIII-Ambient Air(Core)-March 2025.pdf; Annexure XIII-Ambient Air(Buffer)-March 2025.pdf; Annexure XI-Gound Water Baseline-March 2025.pdf; Annexure VIII- Sewage Treatment Plant -60KLD.pdf; Annexure VII-ETP Outlet- March 2025.pdf; Annexure VI-Ash Pond Outlet-March 2025.pdf; Annexure V-Bottom Ash- March 2025.pdf; Annexure IX-LDO Certificate 2023-26.pdf; Annexure IV-Fly Ash Generation & Utilization (2024-2025).pdf; Annexure II-Stack Monitoring - Unit I-March2025.pdf; Annexure III-- DE & DS system at CHP.pdf; Annexure I-CEMS_APNRL.pdf; Covering Letter with compliance report of Environment Clearance –Unit I(Oct 24-March 2025).pdf

Ref:- MoEF & CC issued Environment Clearance File No.J-13011/8/2009-IA.II(T), dated 29th Aug 2009.

Sir,

With reference to the above referred Environmental Clearance of Unit I(1 x270MW), we are pleased to submit herewith the half yearly compliance status report with Annexures for the period of **October 2024 to March 2025.**

Following Documents are attached :

1. Covering Letter with compliance report of Environment Clearance –Unit I
2. Annexure I- Details of CEMS & Photographs
3. Annexure II- Stack Monitoring Report –Unit I
4. Annexure III- Photographs of DE & DS system
5. Annexure IV- Fly Ash Disposal report (2024-25)
6. Annexure V-Bottom Ash Report
7. Annexure VI-Ash Pond Outlet Water Quality Report
8. Annexure VII-ETP Treated Water Quality Report
9. Annexure VIII- Sewage Treatment Plant -60KLD
10. Annexure IX-LDO Certificate 2023-26
11. Annexure X-LDO analysis report
12. Annexure XI-Baseline Ground water quality report
13. Annexure XII-Noise Monitoring Report
14. Annexure XIII-Ambient Air Quality Report
15. Annexure XIV-EMC Cell
16. Annexure XV-HYC-Unit I (April 2024- September 2024)-Acknowledgement Copy
17. Annexure XVI-Environment Statement -Unit I (2023-24)

This is for your reference and record, please.

Thanks & Regards,

Kamlesh Kumar
Adhunik Power & Natural Resources ltd.
Vill.-Padampur,,Behind P.G.C.I.L Substation,Tata-Kandra Road

Saraikela-Kharsawan,Pincode:-832402,Jharkhand
Cell No: - 07763818994
Email Id:- kamleshkrjha@adhunikpower.co.in
Website:- www.adhunikpower.com

Adhunik Power

ADHUNIK POWER & NATURAL RESOURCES LIMITED

WORKS : Village - Padampur, Behind P.G.C.I.L. Substation,
Adityapur - Kandra Road, Saraikela - Kharsawan, PIN - 832402 Jharkhand
Phone : +91 - 657 - 6628400, Fax : +91 - 657 - 6628440
CIN - U40101WB2005PLC102935

Ref: MOE&F, RNC/HYC/KKJ/27525/01 **Dated: 27.05.2025**

To,

The Regional Office (Eastern-Central Zone)
Ministry of Environment, Forest & Climate Change
2nd Floor, Jharkhand State Housing Board (HQ)
Harmu Chowk, Ranchi, Jharkhand-834002

Sub: - Submission of Half-yearly compliance status report (Unit I) for the period – October 2024 to March 2025 -Reg.

Ref: - MoEF letter No.J-13011/8/2009-IA.II (T), dated 29th Aug 2009.

Sir,

With reference to the above-referred Environmental Clearance, we are pleased to submit herewith the half-yearly compliance status report **(Unit I)** for the period of **October 2024 to March 2025.**

This is for your reference and record, please.

Thanking you,

For **Adhunik Power & Natural resources Limited**

(Authorized Signatory)

Encl: As Above

Copy to:
1. Central Pollution Control Board, Kolkata
2. Member Secretary, Jharkhand State Pollution Control Board, Jharkhand
3. Regional Officer, JSPCB, Jamshedpur

CORPORATE OFFICE : "LANSDOWNE TOWER", 2/1A, Sarat Bose Road, Kolkata - 700 020
Ph : +91 - 33 - 30517100 / 7200 / 7300 • Fax : +91 - 33 - 22890285
REGD. OFFICE : 14, N. S. Road, 2nd Floor, Kolkata - 700 001, Phone No. +91 - 33 - 22428551, 22428553
Website : www.adhunikpower.com

REPORT

ENVIRONMENTAL COMPLIANCE STATUS REPORT
FOR
1X270 MW COAL BASED POWER PLANT

(Unit I)

OCTOBER 2024 – MARCH 2025

Adhunik Power & Natural Resources Limited

Village: Padampur, Behind PGCIL Substation

Kandra Chouka Road, Saraikela-Kharsawan

Jharkhand

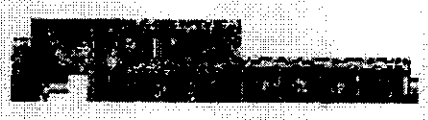
Adhunik Power & Natural Resources Limited Vill: Padampur, Behind PGCIL Substation, Kandra Chouka Road, Saraikela-Kharsawan, Jharkhand		
Environmental Clearance Letter No: J-13011/8/2009-IA.II(T), dated 29th Aug 2009.		
Period Of Compliances: October 2024 to March 2025		
Sl No	**EC Conditions**	**Status as on 31st March 2025**
1	No additional land in excess of 119 ha shall be acquired for any activity/facility of this project.	Total Land acquired for Unit I is well within the land mentioned in Environment Clearance.
2	EC is subject to obtaining clearance under the Wildlife Protection Act, 1972 from the competent authority	WLMP Prepared and approval has been obtained from PCCF. **Complied**
3	EC is subject to final order of the Hon'ble Supreme court of India in the matter of Goa foundation Vs Union of India in Writ. Petition (Civil) no. 460 of 2004 as may be applicable to this project.	Not applicable.
4	Project proponent should contribute @ Rs. 20000/ha for project area as proportionate cost to the regional Wildlife Conservation plan and a copy of the plan should be submitted to the ministry.	As in Sl. No. 2 the Wild Life Management Plan (WLMP) prepared has already been approved by PCCF, Ranchi on May'10.2010. 1st installment already submitted. **Complied**
5	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.45 % and 46 % respectively at any given time. In case of variation of coal quality at the time of issuance of LOA, a fresh reference shall be made to MoEF for suitable amendment to EC condition wherever necessary	The Sulphur content in used coal conforms the limits. As per the Environment (Protection) Amendment Rules, 2020 dated 21 May 2020, Use of coal by Thermal Power Plants, without stipulations as regards ash content or distance shall be permitted.
6	A single stack of 220 m height shall be provided with continuous online monitoring equipment's for Sox, Nox and PM. Exit velocity of flue gases shall not be less than 25 m/sec. Hg emission from stack may also be monitored on periodic basis.	Twin flue chimney of 275m height has constructed for proper dispersion of gases. Online monitoring equipment has installed in chimney. **Photographs with details of CEMS enclosed as Annexure I** Hg concentration in flue gases is well within prescribed limits.
7	High efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emissions does not exceed 50 mg/Nm3	High efficient ESPs of 32 fields has been installed to ensure control Particulate matter emission in flue gas. **Stack monitoring report for the month of March 2025 enclosed as Annexure II**.
8	Adequate dust extraction system such as cyclones/bag filters and water spray in dusty areas such as in coal handling and ash handling points, transfer area and other vulnerable dusty areas shall be provided.	Necessary mitigation measures in accordance with EMP and EC conditions has taken to control fugitive emissions from ash storage/transfer and coal handling plant such as installation and operation of bag filters collectors, use of water spray systems and enclosed conveyors with well designed, extraction and filtration equipment on transfer points. **Photographs Attached as Annexure III.**
9	Fly ash shall be collected in dry form and storage facility (Silos) shall be provided. 100 % fly ash utilization shall be ensured from 4th year onwards. Unutilized ash shall be disposed off in the ash pond in the form of slurry form. Mercury and other heavy metals (As, Hg, Cr, Pb etc.) will be monitored in the bottom ash as also in the effluents	Fly Ash utilization are adhered in compliance with MoEF&CC notification dated 31.12.2021. **Fly Ash generation & Utilization report (April 2024-March 2025) are enclosed as Annexure IV.** Monitoring of mercury and other heavy metals (As, Hg, Cr, Pd etc.) in the bottom ash and also in the effluents emanating from the ash pond is being done periodically. **Bottom ash analysis report & effluent analysis report of ash**

	emanating from the existing ash pond. No ash shall be disposed off in low lying area.	**pond for the month of March 2025 enclosed as Annexure V & Annexure VI respectively.**
10	Ash pond shall be lined with impervious lining. Adequate safety measures shall be implemented to protect the ash dyke from getting breached.	Complied
11	Closed cycling cooling system with natural cooling towers shall be provided. The effluents shall be treated as per the prescribed norms.	The project design involves closed cycle cooling systems with induce draft cooling towers. The effluent generated from process operation is being treated in a Guard pond to ensure conformance to CPCB standards and recycled in plant process. **Treated effluent analysis report of ETP for the month of March 2025 enclosed as Annexure VII.**
12	No ground water shall be extracted for project work at any stage.	We adhere.
13	Natural drainage system within the project site should not be disturbed.	Natural drainage system has not been disturbed.
14	The treated effluents conforming to the prescribed standards shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon. Arrangements shall be made that effluents and storm water do not get mixed.	The project is designed with zero discharge provisions and there is separate arrangement for storm water and effluent water. **Complied**
15	A sewage treatment plant shall be provided and the treated sewage shall be used for raising green belt /plantation.	STP 60 KLD capacity (03 No) has installed within plant premises to treat sewage waste. Photographs enclosed as **Annexure VIII.**
16	Rainwater harvesting should be adopted CGWA shall be consulted for finalization of appropriate rain water technology within a period of three months from the date of clearance and details shall be furnished	The Rain water harvesting report has submitted and approved from CGWA Ranchi. 13 No Rain water harvesting system has been constructed in accordance with the approved rain water harvesting plan.
17	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires of 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 RO of the Ministry at Bhubaneswar.	The design of coal yard along with provision of fire safety measures viz. fire hydrants, water sprinklers has installed and submitted to the Ministry. **Complied**
18	Storage facilities of auxiliary liquid fuel such as LDO and HFO/LSHS shall be made in the plant area in consultation with dept. Of Explosive, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5 %. DMP shall be prepared to meet any eventuality in case of an accident taking place due to storage oil.	Approval received on dated 24.02.2023. License No. P/HQ/JH/15/1065 (P257355) valid upto 31st Dec 2026 for LDO storage installation (under Petroleum Class "C") for operations. Copy of Approval are enclosed as **Annexure IX.** Disaster management plan (DMP) has been prepared to handle the any eventuality in case of an accident taking place due to storage of oil. APNRL is using liquid fuel with sulfur content variation between 0.37 -1.5% which is provided by RIL. Copy of Test report are enclosed as **Annexure X.**
19	Regular monitoring of ground water in and around to ash pond area including heavy metals (Hg, Cr, As, Pb) shall be carried out, records maintained and six monthly report shall be furnished to RO of ministry. The	Regular monitoring of ground water in and around ash pond area including heavy metals is being carried out. **Ground water analysis report of upstream & downstream of ash pond compared with baseline data for the month of March 2025 enclosed as**

	data so obtained should be compared with the base line data so as to ensure that the ground water quality is not adversely affected due to the project.	**Annexure XI.**
20	A green belt of adequate with and density shall be developed around the plant periphery covering 1/3 of the project area preferably with local species.	A thick green belt of adequate width is being developed.68123 nos. (Area covered-30.9 Hac) of plantation has been completed in and outside along the periphery of the power plant to arrest any dust emissions and help in attenuation of noise. Total Survival rate of Plant are 85.6 %. Name of Plant Species- Neem, , Seesam, Mango, Jamun etc.
21	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Plant is under operation however first aid center comprising of competent medical staff (6 no's) and equipped with necessary medical facilities is made available onsite to provide emergency medical aid to both contract workers and company staff.
22	Noise level emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 75 dBA. For people working in the high noise area, requisite PPE like ear plug/ear muff 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.	Adequate measures has implemented in consistent with the EMP to control turbine noise levels within stipulated limits. This include installing of sufficient engineering control in turbines as per design specifications, provision of ear plugs/ear muffs for workers exposed to high noise, rotation of workers and carrying out periodic audiometric testing of workers and records is being maintained. **Noise level monitoring report for the month of March 2025 As Annexure XII.**
23	Regular monitoring of ground level concentration of SO2, NOx, RSPM and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to RO of ministry. The data shall also be put on the website of the company.	Monitoring of Air quality is being conducted by APNRL on monthly basis. Review of air quality monitoring results revealed compliance to NAAQS. Ambient Air monitoring reports for the month of **March 2025** is enclosed as **Annexure XIII.**
24	Provision shall be made for the housing of construction labor 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 structure to be removed after the completion of the project.	Plant is in operational condition and local labors are coming from nearby villages.
25	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 EC and copies of clearance letter are available with the SPCB/committee and may also be seen at Website of the MoEF at	Complied.

	http://envfor.nic.in.	
26	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat Zila Praised/Municipal Corporation, urban local body and the local NGO, is any from whom suggestion/representation, if any were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Complied.
27	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	A Environmental Management Cell is being operational onsite to ensure effective implementation of specific EMPs. **Organization chart of Environmental Management Cell enclosed as Annexure XIV.**
28	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the RO of MoEF the respective zonal office of CPCB and the SPCB the criteria pollutant level namely SPM, RSPM, SO2, NOx (ambient level as stack emission) shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	The updated compliance status of the stipulated EC conditions along with monitored data has been displayed at the company website. The monitoring data (SPM, RSPM, SO2, NOx) for both ambient air quality and chimney emissions is being displayed at the main gate of the company. Status of compliance of the stipulated EC conditions has been uploaded on company website for the period of April 2023 to September 2023.
29	The project proponent shall also submit six monthly report on the status of compliance of the stipulated condition including result of monitored data (both in hard copy as well by email) to the respective RO of MoEF, the respective zonal office of CPCB and the SPCB.	Last six-monthly reports **(April 2024 to September 2024)** for the project along with environmental monitoring data submitted to MoEF RO at Ranchi vide letter No MOE&F, RNC/HYC/KKJ/11224/01 dated 01st Dec 2024 through E Mail dated 09.12.2024. **Acknowledgement copy of same enclosed as Annexure XV.**
30	The environmental statement for each financial year ending 31st September in form-V as is mandated to be submitted by the project proponent to the concern SBCB as prescribed under the Environment Protection Rules, 1986 as amended subsequently shall also be put on the website of the company along with the status of the compliance of EC condition and shall also be sent to the respective RO of MoEF by email.	The last environmental statement for financial year (2023-2024) in Form V has submitted dated 24th Sep 2024. **Acknowledgement copy of same enclosed as Annexure XVI.**
31	RO of the MoEF located at Bhubaneswar will monitor the implementation of the stipulated conditions. A complete set-up of documents including EIA report EMP along with the additional information submitted from time to time shall be forwarded to the RO for their use during monitoring. Project proponent will upload the compliance status their website and update the same from	The updated compliance status of the stipulated EC conditions along with monitored data has been displayed at the company website. The monitoring data (SPM, RSPM, SO2, NOx) for both ambient air quality and chimney emissions is being displayed at the main gate of the company. However Half yearly progress report is being sent to RO office, Ranchi on regular basis as per the requirement & uploaded on company website.

	time to time at least six monthly basis. Criteria pollutant level (Stack and ambient level of NOx) will be displayed at the main gate of the power plant.	
32	Separate fund shall be allocated for implementation of environmental protection measures along with item wise break up this 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.	Adequate budgetary provision has been made by the APNRL for execution of environmental management plan.
33	The project authorities shall inform the RO as well as the ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work and commissioning of plant.	Complied
34	Full cooperation shall be extended to the Scientists/officers from the ministry / RO of the ministry at Bhubaneswar/the CPCB/the SPCB who would be monitoring the compliance of environmental status.	We ensure.



CODEL

REF: DCEM2100/DS/02

DATA SHEET DCEM2100 DUST MONITOR		
GENERAL		
1.	Make	Codel, UK.
2.	Model	DCEM2100 Dust Monitor
3.	Type	In-Situ Non contact cross duct type
4.	Qty of units	2 No
5.	Tag No.	HNE10CQ003
	FEATURES	
6	Range	0-100% Opacity , 0-999mg/m3, 0-999mg/Nm3 (Fully site selectable)
7	Min. detectable conc.	1 mg/m3
8	Measurement Units	Fully selectable units-, mg/m3 (measured) , mg/Nm3(Normalized) and opacity(%)
9	Measurement averaging	Fully selectable in range 10sec to 30 days
10	Response time	90% in 5 seconds.
11	Auto/manual calibration	In built automatic zero and span calibration
12	Accuracy	+/-0.2% Opacity of measurement
13	Drift	Less than 1% per month
14	Resolution	+/-0.1% opacity
15	Linearity	+/- 0.1% of full scale
16	Repeatability	+/-0.1% opacity
17	Power supply	88 – 264 VAC , 50-60Hz, 125 VA
18	Remote/Local control unit	Isolated 2x 4-20 mA, 500 ohms outputs fully configurable. 3 x Volt free SPCO contact rated at 50 VDC 1 Amp. 2 Line X 32 character alpha-numeric LCD displays with 4 key keypad.
19	Automatic misalignment detection	Provided in the instrument as a warning signal of misalignment
20	Correction for contamination	Automatic window contamination check
21	Error Diagnostics	Dirty optics, Misalignment. Valve 1 closed, Valve 2 closed to indicate the error conditions.
22	Construction material and Enclosures	Fully sealed aluminum enclosures to IP 66
DESIGN CONDITIONS		
23	Source	Modulated high intensity LED
24	Detector	Silicon photocell
25	Ambient air temp.	- 20deg.C to 60 deg.C
26	Gas Temperature	Upto 850 deg.c
CONNECTIONS & DIMENSIONS		
27	Analyzer mounting details	Analyser can be mounted in Chimney at Elevation of 91.6 Mtrs. Please refer drawing for analyser mounting flange details.
28	Path length	Suitable for 0.5 to 12m duct/stack inner diameter
ACCESSORIES		
29	Fail safe shutters	Built in
30	Air Purges	Air purges for continuous air supply to instrument provided
31	Interconnecting cables and mounting hardware	Included in supply.
32	Temp. transmitter	24 VDC Supply Make: Precision Converter Model: PCHMR Range: 0 to 300 Deg C

Forbes Marshall CODEL

CODEL

Ref: GCEM40A0/DS/02

DATA SHEET
CO, SO2, NOx GAS ANALYSER

GENERAL			
1.	Make	CODEL International Ltd., UK	
2.	Model/Article No	GCEM4000 Series Article no GCEM40A0	
3.	Type	Infrared Absorption Analyser-In-Situ type	
4.	Qty	2 No.	
5.	Tag No.	SOx	HNE10CQ004
		NOx	HNE10CQ001
		CO	HNE10CQ002
		FEATURES	
6.	Range	CO : 0 to 1000ppm, 0 to 1000mg/m3, 0 to 1000mg/Nm3 SO2 : 0 to 1000ppm, 0 to 1000mg/m3, 0 to 1000mg/Nm3, NOx : 0 to 1000ppm, 0 to 1000mg/m3, 0 to 1000mg/Nm3, CO2 : 0 to 25% H2O : 0 to 25% Above ranges are site selectable up to 3000 ppm	
7.	Min. detectable conc.	1 ppm , 1mg/m3, 1mg/Nm3 for CO,SO2,NOx & 0.5% for CO2,H2O.	
8.	Measurement Units	Fully selectable units-ppm or % by volume, mg/m3 (measured) and mg/Nm3 (Normalised to temperature, pressure, H2O & CO2)	
9.	Measurement averaging	Fully selectable in range 10Sec to 1 hour	
10.	Response time (T90)	Detector less than 10 seconds, Calibration less than 200 seconds.	
11.	Auto & manual calibration	In built and selectable	
12.	Function	Continuous function	
13.	Accuracy	+/- 2% of measured value for CO,SO2, NOx,& 0.5% for CO2 & H2O	
14.	Zero /span drift(24hrs)	Over all drift less than +/-2% per month	
15.	Repeatability	Less than 2% of span	
16.	Sensitivity	1 ppm for CO,SO2,NOx, 0.5% for CO2,H2O	
17.	Linearity	Less than 2%	
18.	LCD Display	LCD with back light	
19.	Power supply	240VAC, 50-60Hz, +/-10% 400VA	
20.	Outputs	Analog : 5 x 4-20 mA isolated, max. 500 Ohms, full configurable from Keypad for CO,SO2,NOx in ppm & CO2,H2O in % to DCS fully site configurable. Logic: 5 x Volt free contacts, SPCO rated at 50 volt 1A & 1x data invalid output (System fault)	
21.	Serial Communications	RS232/RS485 Modbus O/P	
22.	Construction material and Enclosures	Electronic Housings (DDU) : Corrosion resistant, epoxy coated Aluminium housing sealed to IP 66 Probe : SS316L	

DESIGN CONDITIONS		
23.	Infrared source	Heater cartridge assembly
24.	Infrared detector	Lead selenid detecter
25.	Ambient air temp.	Transceiver unit 0 to 70 °C, Electronic unit (PSU & DDU) 0 to 60 °C
26	Flue gas temp.	Up to 350 deg.C

CONNECTIONS & DIMENSIONS		
27	Analyser mounting details	Please refer drawing for analyser mounting flange details. Mounting location on Chimney at 91 Mtrs Elevation.
28	Stack width	Suitable for duct/Stack inner diameter of more than 2000mm.
ACCESSORIES		
29	Standard span gas for calibration	Make : Chemtron Science Laboratory, Mumbai Material : Aluminium Cylinder Capacity : 10 ltr W.C Filled with : 500ppm CO, 500ppm SO2, 500ppm NO and balance Nitrogen (N2) Cylinder with SS regulator, necessary tubing's & fittings. Filled pressure: filled at 120-130kg/cm2
30	Zero Calibration	For zero calibration we use plant compressed air.
31	Air dryer unit	Maximum Pressure : 10 bar Maximum temperature : 57 deg.C Air dryer unit to dry down the compressed air to -20 deg.c .
32	Zero/span gas calibration tubes	For zero calibration, client to provide plant instrument air line up to probe (10 mm OD connection) For span gas calibration, 20 mtr length SS tube of 10mm OD with necessary fittings from Cylinder to probe.
33	Pressure transmitter	Mounted on GCEM40A0 probe Make : Druck Range : 1 .6bar absolute with 4-20mA output Input supply : 24VDC operated
34	Temperature transmitter	Mounted on GCEM40A0 probe Make : Peak Sensor Limited, Washington Type: K type thermocouple Range : 0 – 600 deg.C with 4-20mA output Input supply : 24VDC operated
35	Plant instrument air Consumption	5 LPM @3 bar pressure continuous 10LPM @3 bar pressure during zero calibration

Continuous emission monitoring system

Test Report

URL(Unique Lab Report) No.			TC	1	2	9	8	9	2	5	0	0	0	0	0	0	5	8	2	F

Discipline	Chemical	Group	Atmospheric Pollution	Sample Description	Stationary Source Emission
Report Release Date		29th March, 2025		Report ID	YBAEEL-2503-12
W. Order / JSPCB App. No.		3030007508		Work Order Date	07.03.2025
Type of Industry(If any)		Thermal Power Plant		Job code/ Ref. no.	YBAEEL/C/A/March - 25/14
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.			

Sampling Period	13/03/2025	Mode of sample collection			By YBAEEL Team
Sampling Plan	YBAEEL/SP/March/12/2025	Sampling Method	IS: 11255 & CPCB Guideline (Lats/80/2013-14)		
Meteorological Cond. of Field	W.C.– Clear	RH % - 50			Temp. - 34°C
Sample receipt Date	13/03/2025	Analysis Started on	13/03/2025	Analysis completed on	29/03/2025

General Information

As observed while sampling		As reported by customer	
Location	Sampling port hole	Type of fuel Used	Coal
Platform	Permanent	Quantity of Fuel Used(During Sampling)	165 Ton/Hr.
Stack Description (Shape & Material)	Circular / RCC	Total production Capacity	270 MW (262 MW During Sampling)
Sampling port	Available	Height of Stack from ground level	275mtr.
Stack Identification	Unit - I	Inner Diameter of Stack	4.2 mtr.
Height of port hole from Ground level	90 mtr.	Pollution Controlling Device (if any)	ESP
Running Oven during sampling (if any)	N/A	Total No. of Oven (if any)	N/A
Stack gas Temperature (k)	391.0		
Stack gas Velocity (m/s)	25.16		
Volumetric Flow Rate (Nm^3/hr)	928424.1		

Emission Rate based on Calculation of Volumetric Flow rate

1.	Particulate Matter (PM)	Kg/hr	30.4
2.	Sulphure Dioxide (SO_2)	Kg/hr	900.2
3.	Oxide of Nitrogen (as NO_x)	Kg/hr	332.5

******Test Results ******

Sl	Parameters	Test Method	Units	Results	Limits
1.	Particulate Matter (PM)	IS 11255 (Part 1)2009, RA 2019	mg/Nm^3	32.80	50
2.	Sulphure Dioxide (SO_2)	IS 11255 (Part 2)2009, RA 2019	mg/Nm^3	969.60	600
3.	Oxide of Nitrogen (as NO_x)	IS 11255 (Part 7)2005, RA 2022	mg/Nm^3	358.1	450
4.	Carbon Monoxide (CO)	IS 13270:1992:2009, RA 2019	%	BDL (MDL 0.2)	--

Limit is specified as	Environmental (Protection) Rule – 1986.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit,
Env. Condition of Lab	Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility
	This report, in full or in part, shall not be used for advertising or as evidence in any court of law.
	This report cannot be reproduced, except when in full, without the written permission of the CEO.
	The samples collected shall be destroyed after 15 days from the date of issue of the report unless specified otherwise
	The liability of the laboratory is limited to the invoiced amount.
	All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Sample complies with prescribed limit, except SO2.

Sample Drawn By – Angad Munda
Tested By – Akash Khalkho (Lab Analyst)

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

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

Authorized Signatory
Atmospharic Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Test Report

Discipline	Chemical	Group	Atmospheric Pollution	Sample Description	Stationary Source Emission
Report Release Date		29th March, 2025		Report ID	YBAEEL-2503-12
W. Order / JSPCB App. No.		3030007508		Work Order Date	07.03.2025
Type of Industry(If any)		Thermal Power Plant		Job code/ Ref. no.	YBAEEL/C/A/March - 25/14
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.			
Sampling Period		13/03/2025		Mode of sample collection	By YBAEEL Team
Sampling Plan		YBAEEL/SP/March/12/2025		Sampling Method	IS: 11255 & CPCB Guideline (Lats/80/2013-14)
Meteorological Cond. of Field		W.C.– Clear		RH % - 50	Temp. - 34°C
Sample receipt Date		13/03/2025	Analysis Started on	13/03/2025	Analysis completed on 29/03/2025

General Information

As observed while sampling		As reported by customer	
Location	Sampling port hole	Type of fuel Used	Coal
Platform	Permanent	Quantity of Fuel Used(During Sampling)	165 Ton/Hr.
Stack Description (Shape & Material)	Circular / RCC	Total production Capacity	270 MW (262 MW During Sampling)
Sampling port	Available	Height of Stack from ground level	275mtr.
Stack Identification	Unit - I	Inner Diameter of Stack	4.2 mtr.
Height of port hole from Ground level	90 mtr.	Pollution Controlling Device (if any)	ESP
Running Oven during sampling (if any)	N/A	Total No. of Oven (if any)	N/A
Stack gas Temperature (k)	391.0		
Stack gas Velocity (m/s)	25.16		
Volumetric Flow Rate (Nm^3/hr)	928424.1		

******Test Results ******

Sl	Parameters	Test Method	Units	Results	Limits
1.	Mercury (as Hg)	Lat's/80/2013-14	mg/Nm^3	BDL (MDL 0.003)	0.03

Limit is specified as	Environmental (Protection) Rule – 1986.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit.
Env. Condition of Lab	Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility
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	The samples collected shall be destroyed after 15 days from the date of issue of the report unless specified otherwise.
	The liability of the laboratory is limited to the invoiced amount.
	All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Sample complies with prescribed limit.

Sample Drawn By – Angad Munda
Tested By – Akash Khalkho (Lab Analyst)

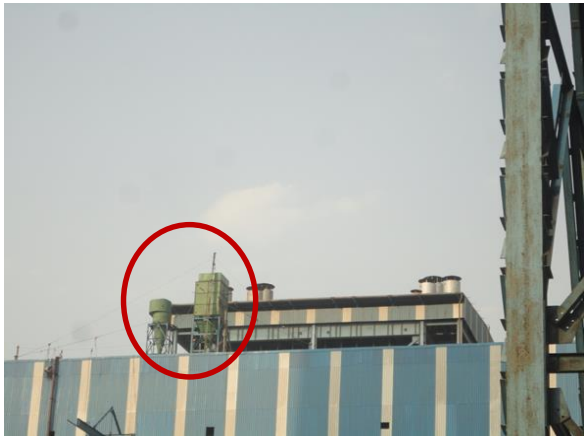
29/03/25

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

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

Authorized Signatory
Atmospharic Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Bag Filter installed at Coal mill building



Bag Filter installed at Ash silo

Bag filter at buffer hopper

Dust suppression through Tanker

Fixed type DS system for coal Conveyor

DE system at Coal Crusher House

Closed type coal conveying system

Fixed type dust suppression system

Fixed type DS system at Coal Yard

ADHUNIK POWER & NATURAL RESOURCES LIMITED

WORKS : Village - Padampur, Behind P.G.C.I.L. Substation,
Adityapur - Kandra Road, Saraikela - Kharsawan, PIN - 832402 Jharkhand
Phone : +91 - 657 - 6628400, Fax : +91 - 657 - 6628440
CIN - U40101WB2005PLC102935

Ref No APNRL/MOEF/FA/2024-25/210425 **Date: 21st April 2025**

To

The Regional Office (Eastern-Central Zone)
Ministry of Environment, Forest & Climate Change
2nd Floor, Jharkhand State Housing Board (HQ)
Harmu Chowk, Ranchi, Jharkhand-834002

Sub- Submission of Ash generation & Utilization for Unit I & Unit II (1 x 270 MW each) of M/s Adhunik Power & Natural Resources Limited, Village- Padampur, Dist-Saraikela-Kharswan, Jharkhand.

Ref: MoEF Fly Ash notification S.O. 5481(E) dated 31.12.2021.

Dear Sir,

In line with compliance of above referred MoEF Fly Ash latest Notification S.O. 5481(E) dated 31.12.2021, Please find attached herewith Ash generation & Utilization for Unit I & Unit II (2 x 270 MW each) with addendum of M/s Adhunik Power & Natural Resources Limited, Village-Padampur, Dist-Saraikela-Kharswan, Jharkhand for the financial year 2024-25.

This is for your kind information & record please.

Thanking You

Your's faithfully
For Adhunik Power & Natural resources Limited

21/4/25

Mukti Nath Singh
Head (O & M)

Encl: As mentioned above

1. **Scientist D, PCI-II, Central Pollution Control Board, New Delhi.**
2. **Member Secretary, JSPCB, Ranchi.**
3. **Chief Engineer (TCD), CEA, New Delhi.**
4. **The Regional Officer, JSPCB, Jamshedpur.**

Adhunik Power & Natural Resources Ltd

Ash Compliance Report (for the period 1st April 2024-31st March 2025)

Sl No	Details	Compliance Status As on 31.03.2025
1	Name of Power Plant	Adhunik Power & Natural Resources Ltd
2	Name of the company	Adhunik Power & Natural Resources Ltd
3	District	Sariekela-Kharswan
4	State	Jharkhand
5	Postal address for communication:	Vill- Padampur, Adityapur Kandra Road, Near P.G.C.I.L Sub Station, Post-Kandra
6	E-mail:	kamleshkrjha@adhunikpower.co.in
7	Power Plant installed capacity (MW):	2 x 270 MWH = 540 MWH
8	Plant Load Factor (PLF):	82.15%
9	No. of units generated (MWh):	3886067.84.
10	Total area under power plant (ha): (including area under ash ponds)	178.684
11	Quantity of coal consumption during reporting period (Metric Tons per Annum):	2813289.38
12	Average ash content in percentage (per cent):	40.87
13	Quantity of current ash generation during reporting period (Metric Tons per Annum):	1149680.45
	Fly ash (Metric Tons per Annum):	934788.21
	Bottom ash (Metric Tons per Annum):	214892.24
14	Capacity of dry fly ash storage silo(s) (Metric Tons) :	2 x 2200 MT
15	Details of utilisation of current ash generated during reporting period	
	(a) Total quantity of current ash utilised (MTPA) during reporting period:	939803.26
	(b) Quantity of fly ash utilised (MTPA):	787978.45
	(i) Fly ash based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels)	145986.16
	(ii) Cement manufacturing:	493731.00
	(iii) Ready mix concrete:	106437.00
	(iv) Ash and Geo-polymer based construction material:	0.00
	(v) Manufacturing of sintered or cold bonded ash aggregate:	0.00
	(vi) Construction of roads, road and fly over embankment:	0.00
	(vii) Construction of dams:	0.00
	(viii) Filling up of low lying area:	1890.10
	(ix) Filling of mine voids:	0.00
	(x) Use in overburden dumps:	0.00
	(xi) Agriculture:	0.00
	(xii) Construction of shoreline protection structures in coastal districts;	0.00
	(xiii) Export of ash to other countries:	39901.02
	(xiv) Others (please specify):	0.00
	(c) Quantity of bottom ash utilised (MTPA):	151824.80

	(i) Fly ash based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels):	9422.24	
	(ii) Cement manufacturing:	28057.33	
	(iii) Ready mix concrete:	0.00	
	(iv) Ash and Geo-polymer based construction material:	0.00	
	(v) Manufacturing of sintered or cold bonded ash aggregate:	0.00	
	(vi) Construction of roads, road and flyover embankment:	0.00	
	(vii) Construction of dams:	0.00	
	(viii) Filling up of low lying area:	114345.33	
	(ix) Filling of mine voids:	0.00	
	(x) Use in overburden dumps:	0.00	
	(xi) Agriculture:	0.00	
	(xii) Construction of shoreline protection structures in coastal districts;	0.00	
	(xiii) Export of ash to other countries:	0.00	
	(xiv) Others (please specify):	0.00	
	Total quantity of current ash unutilised (MTPA) during reporting period:	188698.30	
16	Percentage utilisation of current ash generated during reporting period (percent):	81.74	
17	Details of disposal of ash in ash ponds		
	(a) Total quantity of ash disposed in ash pond(s) (Metric Tons)as on 31st March (excluding reporting period):	0.00	
	(b) Quantity of ash disposed in ash pond(s) during reporting period (Metric Tons):	188698.30	
	(c) Total quantity of water consumption for slurry discharge into ash ponds during reporting period (m3):	826505.66	
	(d) Total number of ash ponds:	2	
	(i) Active:	2	
	(ii) Exhausted (yet to be reclaimed):	0	
	(iii) Reclaimed:	0	
	(e) total area under ash ponds (ha):	5.33	
18	Individual ash pond details Ash pond-1,2, etc (please provide below mentioned details separately, if number of ash ponds is more than one)	**Ash Pond 1**	**Ash Pond 2**
	(a) Status: Under construction or Active or Exhausted or Reclaimed	Active	Active
	(b) Date of start of ash disposal in ash pond (DD/MM/YYYY or MMYYYY):	Jan-13	Mar-16
	(c) Date of stoppage of ash disposal in ash pond after completing its capacity (DD/MM/YYYY or MM/YYYY):(Not applicable for active ash ponds)	NA	NA
	(c) area (hectares):	2.82	2.5
	(d) dyke height (m):	9	7
	(d) volume (m3):	253908	175434

	(e) quantity of ash disposed as on 31st March (Metric Tons):	183386.572	5311.731882
	(f) available volume in percentage (per cent) and quantity of ash can be further disposed (Metric Tons):	44.44% 146693.828 MT	97.67% 222752.47 MT
	(g) expected life of ash pond (number of years and months):	25	25
	(e) co-ordinates (Lat and Long): (please specify minimum 4 co-ordinates)	1.22°50'19.4"N 86°03'21.2"E 2.22°50'15.5"N 86°03'16.0"E 3.22°50'12.4"N 86°03'23.1"E 4.22°50'19.2"N 86°03'25.8"E	1.22°50'06.9"N 86°03'30.8"E 2.22°50'16.3"N 86°03'32.1"E 3.22°50'16.5"N 86°03'28.9"E 4.22°50'08.9"N 86°03'25.3"E
	(f) type of lining carried in ash pond: HDPE lining or LDPE lining or clay lining or No lining	HDPE Lining	HDPE Lining
	g) mode of disposal: Dry disposal or wet slurry (in case of wet slurry please specify whether HCSD or MCSD or LCSD)	Wet Slurry (LCSD)	Wet Slurry (LCSD)
	(h) Ratio of ash: water in slurry mix (20:80___):	01:04	01:04
	(i) Ash water recycling system (AWRS) installed and functioning: Yes or No	Yes	Yes
	(j) Quantity of waste water from ash pond discharged into land or water body (m3):	Recycled	Recycled
	(k) Last date when the dyke stability study was conducted and name of the organisation who conducted the study:	Dyke Stability Study are in process through NIT,Jamshedpur	
	(l) Last date when the audit was conducted and name of the organisation who conducted the audit:	Ash compliance audit for FY 2023-24 has been conducted through NIT, Rourkela.	

19	Quantity of legacy/Pond ash utilised (MTPA):	238769.73		
	i. Fly ash based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels):	2749.91		
	ii. Cement manufacturing:	40905.70		
	iii. Ready mix concrete:	4884.00		
	iv. Ash and Geo-polymer based construction material:	0.00		
	v. Manufacturing of sintered or cold bonded ash aggregate:	0.00		
	vi. Construction of roads, road and flyover embankment:	0.00		
	vii. Construction of dams:	0.00		
	viii. Filling up of low lying area:	190229.42		
	ix. Filling of mine voids:			
	x. Use in overburden dumps:	0		
	xi. Agriculture:	0		
	xii. Construction of shoreline protection structures in coastal districts;	0		
	xiii. Export of ash to other countries:	0		
	xiv. Others (please specify):	0		

20	Summary:			
	Details	Quantity generated (MTP)	Quatity utilized (MTP) and Percent	Balance quanity (MTP)
	Current ash during reporting period	1149680.449	939803.06(81.74 %)	209877.45
	Legacy ash/Pond Ash	217590.8447	238769.73 (109.73 %)	-21178.89
	Total	1367271.294	1178572.99 (102.51 %)	188698.30
21	Any other information: Soft copy of the annual compliance report, and shape files of power plant and ash ponds may be e-mailed to:- moefcccoalash@gov.in	Attached		
22	Signature of Authorised Signatory	21/4/25		

Note: 21178.89 MT Additional Pond ash disposed which had accumulated in ash pond for FY 2024-25.

Addendum to Annual Implementation Report (AIR) format for FY 2024-25 (01.04.2024 to 31.03.2025) onwards for submission of ash data by TPPs to concerneed SPCB/PCC, CPCB, CEA, IRO-MoEF&CC in compliance to Ash Notification dated 31.12.2021 (amended on 30.12.2022 and 01.01.2024) and Ministry of Power's guidelines dated 15.03.2024

1	Name of Thermal Power Plant (Capacity in MW)	Adhunik Power & Natural Resources Ltd (2 x270 MW)
2	Total annual issuable ash - To be declared prior to start of the annual ash disposal process as per para 5(A-i) of MoP Guidelines 2024 (LMT)	15.22
3	Total ash available for utilisation (Current + Legacy) at the beginning of FY 2024-25 = Carryover of Current + Legacy ash (if available and to be used in progressive manner) from the closing stock of last FY year i.e. 2023-24 (LMT)	2.17591
4	Total ash generation during FY 2024-25 (LMT)	11.5
5	Ash quantity sold to MSE through limited auction during FY 2024-25 (LMT) **[As per Para 5(B) i.e Step 1]**	0.28412
6	Revenue earned during FY 2024-25 **(in Rs. Crores) [As per Para 5(B) i.e Step 1]**	0.14206
7	Ash quantity sold through through open auction during FY 2024-25 (LMT) **[As per Para 5(C-i) i.e Step 2]**	0.93608
8	Revenue earned during FY 2024-25 **(in Rs. Crores) [As per Para 5(C-i) i.e Step 2]**	0.30573
9	Ash quantity supplied free of cost through open EOI during FY 2024-25 (LMT) **[As per Para 5(C-ii) i.e Step 3]**	4.20391
10	Ash quantity supplied under direct Notice free of cost and bearing its transportation cost during FY 2024-25 (LMT) **[As per Para 5(C-iii) i.e Step 4]**	0.00
11	Cost borne by TPP during FY 2024-25 **(in Rs. Crores) [As per Para 5(C-iii) i.e Step 4]**	0.00
12	Ash quantity supplied/disposed **beyond** Steps 1-4 by applying best business practices/financial prudence during FY 2024-25 (LMT) **[As per Para 5(C-iv) i.e Step 5]**	6.36262
13	Cost borne by TPP during FY 2024-25 **(in Rs. Crores) [As per Para 5(C-iv) i.e Step 5]**	12.21611
14 ={(3+4) - (5+7 +9+10+12)}	Ash quantity remained unutilized at the end of FY 2024-25 (LMT)	1.88598

Note: Please follow the units while filling above data i.e. **LMT** for Ash quantity, and **Crores** for Revenue.

21/4/25

Test Report

Discipline	Chemical	Group	Pollution & Environment	Sample Description	ASH
Report Release Date		31st March, 2025		Report ID	YBAEEL-2503-12
W. Order / JSPCB App. No.		3030007508		Work Order Date	07.03.2025
Type of Industry(If any)		Thermal Power Plant		Job code/ Ref. no.	YBAEEL/C/S/March. 25/02
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand			
Sampling Date		13/03/2025		Mode of sample collection	By YBAEEL Team
Sampling Plan		YBAEEL/SP/March/12/2025		Sample Code	250313-AS-02
Sampling Location		Hopper		Sampling Source	Bottom Ash
Sample pkg. Condition		Sealed Pack in Zipper Bag		Sample Quantity	2.5 Kg Approx.
Meteorological Cond. of Field		W.C.– Clear		RH % - 50	Temp. - 32^{0}C
Sample receipt Date		13/03/2025	Analysis Started on	13/03/2025	Analysis completed on 31/03/2025

******Test Results ******

SI	Parameter	Test Method	Units	Results
1.	Iron (as Fe)	USEPA 3050 B :1996/APHA 3111 B	ppm	36.0
2.	Zinc (as Zn)	USEPA 3050 B :1996/APHA 3111 B	ppm	0.09
3.	Copper (as Cu)	USEPA 3050 B :1996/APHA 3111 B	ppm	0.15
4.	Lead (as Pb)	USEPA 3050 B :1996/APHA 3111 B	ppm	0.05
5.	Nickel (as Ni)	USEPA 3050 B :1996/APHA 3111 B	ppm	0.04
6.	Cadmium (as Cd)	USEPA 3050 B :1996/APHA 3111 B	ppm	BDL
7.	Chromium (as Cr)	USEPA 3050 B :1996/APHA 3111 B	ppm	0.29
8.	Arsenic (as As)	USEPA 3050 B :1996/APHA 3112 B	ppm	BDL
9.	Mercury (Hg)	USEPA 3050 B :1996/APHA 3111 B	ppm	BDL (MDL 0.003)
10.	Selenium (as Se)	USEPA 3050 B :1996/APHA 3111 B	ppm	BDL (MDL 0.01)
11.	Unburn Carbon	IS 1727:1967	%	2.14

Limit is specified as	----------
Abbreviation	MDL- Minimum detection limit, BDL - Below detection limit.
Env. Condition of Lab	Laboratory is maintaining. Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility..
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	All disputes are subjected to the Ranchi Jurisdiction.
Remarks	----------

Sample Drawn By – Angad Munda
Tested By – Sweta Kumari (Lab Analyst)

31/03/25

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

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

Test Report

ULR (Unique Lab Report) No.	TC	1	2	9	8	9	2	5	0	0	0	0	0	0	6	3	7	F

Discipline: Chemical	Group: Pollution & Environment	Sample Description	Waste Water / Effluent Water
Report Release Date	31st March, 2025	Report ID	YBAEEL-2503-12
W. Order / JSPCB App. No.	3030007508	Work Order Date	07.03.2025
Type of Industry(If any)	Thermal Power Plant	Job code/ Ref. no.	YBAEEL/C/PE/March-25/03
Report Issue to	M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.		
Sampling Date	13/03/2025	Mode of sample collection: By YBAEEL Team	Sample Code: 250313-WW-01
Sampling Plan	YBAEEL/SP/March/12/2025	Sampling Method	IS -17614 (Part-1):2021
Sampling Location	Ash Pond	Sampling Source	Effluent Water
Sample pkg. Condition	Sealed Pack in PP Bottle	Sample Quantity	3000 ml
Meteorological Cond. of Field	W.C.– Clear	RH % - 50	Temp.–32⁰C
Sample receipt Date	13/03/2025	Analysis Started on: 13/03/2025	Analysis completed on: 31/03/2025

******Test Results ******

Sl	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2022 (Electrometric Method)	pH	8.18 at 25.6⁰C	6.5 – 8.5
2.	Temperature	IS 3025 (P-09):2023	⁰C	30.6	--
3.	Total Suspended Solids	IS 3025 (P-17):2022 (Gravimetric Method)	mg/l	56.0	100
4.	Oil & Grease	IS 3025 (P-39):2021 (Partition Gravimetric Method)	mg/l	1.6	20
5.	Arsenic (as As)	APHA 3114 C 24th edition 2023 (Continuous Hydride Generation Method)	mg/l	BDL (MDL 0.003)	--
6.	Lead (as Pb)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.18	--
7.	Mercury (as Hg)	APHA 3112 B 24th edition 2023 (Cold Vapour AAS Method)	mg/l	BDL (MDL 0.003)	--
8.	Chloride (as Cl)	IS 3025 (P-32):1988, RA 2019 (Argentometric Method)	mg/l	42.58	--
9.	Chromium (as Cr)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--

Limit is specified as	Environmental (Protection) Rule – 1986.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit,
Env. Condition of Lab	Laboratory is maintaining, Temperature 27 ± 2⁰C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility
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	All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Sample complies with prescribed limit.

Sample Drawn By – Angad Munda
Tested By – Sweta Kumari (Lab Analyst)

31/03/25
Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

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

Test Report

ULR (Unique Lab Report) No.				TC	1	2	9	8	9	2	5	0	0	0	0	0	0	6	3	6	F			

Discipline	Chemical	Group	Pollution & Environment	Sample Description	Waste Water / Effluent Water
Report Release Date		31st March, 2025		Report ID	YBAEEL-2503-12
W. Order / JSPCB App. No.		3030007508		Work Order Date	07.03.2025
Type of Industry(If any)		Thermal Power Plant		Job code/ Ref. no.	YBAEEL/C/PE/March-25/02
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.			

Sampling Date	13/03/2025	Mode of sample collection	By YBAEEL Team	Sample Code	250313-WW-02
Sampling Plan	YBAEEL/SP/March/12/2025		Sampling Method	IS -17614 (Part-1):2021	
Sampling Location	ETP Outlet		Sampling Source	Effluent Water	
Sample pkg. Condition	Sealed Pack in PP Bottle		Sample Quantity	3000 ml	
Meteorological Cond. of Field	W.C.– Clear		RH % - 50	Temp.–32°C	
Sample receipt Date	13/03/2025	Analysis Started on	13/03/2025	Analysis completed on	31/03/2025

******Test Results ******

Sl	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2022 (Electrometric Method)	pH	8.83 at 25.6°C	5.5 – 9.0
2.	Temperature	IS 3025 (P-09):2023	°C	28.4	--
3.	Total Suspended Solids	IS 3025 (P-17):2022 (Gravimetric Method)	mg/l	78.0	100
4.	BOD (3 days at 27°C)	IS 3025 (P-44):1993, RA 2019 (Oxygen Depletion Method)	mg/l	16.0	30
5.	COD	IS 3025 (P-58):2006, RA 2022	mg/l	80.0	250
6.	Chloride (as Cl^{-})	IS 3025 (P-32):1988, RA 2019 (Argentometric Method)	mg/l	50.98	--
7.	Sulphate (as SO_4^{2-})	IS 3025 (P-24-Sec 1):2022 (Turbidity Method)	mg/l	82.11	--
8.	Copper (as Cu)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	*mg/l*	BDL (MDL 0.01)	3
9.	Lead (as Pb)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	*mg/l*	BDL (MDL 0.02)	0.1
10.	Zinc (as Zn)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	*mg/l*	0.06	5
11.	Chromium (as Cr)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	2
12.	Arsenic (as As)	APHA 3114 C 24th edition 2023 (Continuous Hydride Generation Method)	*mg/l*	BDL (MDL 0.003)	0.2

Limit is specified as	Environmental (Protection) Rule – 1986.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit.
Env. Condition of Lab	Laboratory is maintaining. Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility
	This report, in full or in part, shall not be used for advertising or as evidence in any court of law.
	This report cannot be reproduced, except when in full, without the written permission of the CEO.
	The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise
	The liability of the laboratory is limited to the invoiced amount.
	All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Sample complies with prescribed limit.

Sample Drawn By – Angad Munda
Tested By – Sweta Kumari (Lab Analyst)

31/03/25

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

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

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Sewage Treatment Plant

भारत सरकार
Government of India
वाणिज्य और उद्योग मंत्रालय
Ministry of Commerce & Industry
पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पैसो)
Petroleum & Explosives Safety Organisation (PESO)
श्री मोहन, तीसरा माला, सीता परिसर, मेन रोड, सुशीला ऑटोमोबाइल के पीछे
रांची- 834001
Sri Mohan, 3rd Floor, Sita Compound, 5 Main Road, Behind Sushila Automobiles,
Ranchi - 834001

E-mail : dycceranchi@explosives.gov.in
Phone/Fax No : 651 - 2332689, 2332690, 2332688

संख्या /No. : P/HQ/JH/15/1065 (P257355)

दिनांक /Dated : 24/02/2023

24 FEB 2023

सेवा में /To,

M/s. Adhunik Power & Natural Resources Ltd.,
Village-Padampur,Behind PGCIL Substation,,
Adityapur-Kandra Road,,
Taluka: Adityapur(Gamharia),
District: SARAIKELLA KHARSWAN,
State: Jharkhand
PIN: 832105

विषय /Sub : Plot No, Plot No. 161,, Behind PGCIL.Substation adityapur, Kandra Road, Village- Padampur, Adityapur(Gamharia), Taluka: Adityapur (Gamharia), District: SARAIKELLA KHARSWAN, State: Jharkhand, PIN: 832402 में स्थित विद्यमान पेट्रोलियम वर्ग C अधिष्ठापन में अनुज्ञप्ति सं P/HQ/JH/15/1065 (P257355) के नवीकरण के संदर्भ में।
Existing Petroleum Class C Installation at Plot No, Plot No. 161,, Behind PGCIL.Substation adityapur, Kandra Road, Village- Padampur, Adityapur(Gamharia), Taluka: Adityapur(Gamharia), District: SARAIKELLA KHARSWAN, State: Jharkhand, PIN: 832402 - Licence No. P/HQ/JH/15/1065 (P257355) - Renewal regarding.

महोदय /Sir (s),

कृपया आपके पत्र क्रमांक OIN1307334 दिनांक 23/02/2023 का अवलोकन करें।
Please refer to your letter No.: OIN1307334, dated 23/02/2023

अनुज्ञप्ति संख्या P/HQ/JH/15/1065 (P257355) दिनांक 23/12/2011 को दिनांक 31/12/2026 तक नवीनीकृत कर इस पत्र के साथ अग्रेषित की जा रही है।
Licence No. P/HQ/JH/15/1065 (P257355) dated 23/12/2011 is forwarded herewith duly renewed upto 31/12/2026.

कृपया पेट्रोलियम नियम 2002 के अधीन बनाए गए नियम 148 में दी गई प्रक्रिया का कड़ाई से पालन करें। अनुज्ञप्ति के नवीकरण हेतु समस्त दस्तावेजों को अनुज्ञप्ति की वैधता समाप्त होने की तिथि से कम से कम 30 दिन पूर्व कार्यालय को प्रेषित करें।
Please follow the procedure strictly as laid down in rule 148 of the Petroleum Rules, 2002 and submit complete documents for the Renewal of the licence **so as to reach this** office on or before the date on which Licence expires.

कृपया पावती दें
Please acknowledge the receipt.

भवदीय /Yours faithfully,

((आशेन्द्र सिंह)
(Ashendra Singh))
उप मुख्य विस्फोटक नियंत्रक
Dy. Chief Controller of Explosives
रांची/Ranchi

Note:-This is system generated document does not require signature.

(अधिक जानकारी जैसे आवेदन की स्थिति, शुल्क तथा अन्य विवरण के लिए हमारी वेबसाइट : http://peso.gov.in देखें)
(For more information regarding status,fees and other details please visit our website: http://peso.gov.in)

अनुज्ञप्ति संख्या-(Licence No.) P/HQ/JH/15/1065 (P257355)

नवीनीकरण के पृष्ठांकन के लिए स्थान
SPACE FOR ENDORSEMENT OF RENEWALS

पेट्रोलियम अधिनियम, १९३४ के उपबन्धों या उनके अधीन बनाए गए नियमों या इस अनुज्ञप्ति की शर्तों का उल्लंघन न होने की दशा में यह अनुज्ञप्ति फ़िस में बिना किसी छूट के दस वर्ष तक नवीकृत की जा सकेगी | This licence shall be renewable without any concession in fee for ten years in the absence of contravention of any provisions of the Petroleum Act, 1934 or of the rules framed thereunder or of any of the conditions of this licence.	नवीकरण की तारीख Date of Renewal	समाप्ति की तारीख Date of Expiry of license	अनुशापन प्राधिकारी के हस्ताक्षर और स्टाम्प Signature and office stamp of the licencing authority.
1).		31/12/2013	Sd/- PESO ADMIN
2).	23/09/2013	31/12/2018	Sd/- R.P.Singh Jt. Chief Controller of Explosives For Dy. Chief Controller of Explosives Ranchi
3).	18/02/2019	31/12/2022	Sd/- K. Thiagarajan Jt. Chief Controller of Explosives For Dy. Chief Controller of Explosives Ranchi
4).	24/02/2023	31/12/2026	Ashendra Singh Dy. Chief Controller of Explosives Ranchi

यदि अनुज्ञप्ति परिसर इसमें उपाबद्ध विवरण और शर्तों के अनुरुप नहीं पाए जाते है और जिन नियमों और शर्तों के अधीन यह अनुज्ञप्ति मंजूर की गई है उनमे से किसी का उल्लंघन होने की दशा में यह अनुज्ञप्ति रद्द की जा सकती है और अनुज्ञप्तिधारी प्रथम अपराध के लिए साधारण कारावास से, जो एक मास तक हो सकता है, या जुर्माने से, जो एक हजार रुपये तक हो सकता है, या दोनों से, और प्रत्येक पश्चातवर्ती अपराध के लिए साधारण कारावास से जो तीन मास तक हो सकता है, या जुर्माने से, जो पांच हजार रुपये तक हो सकता है, या दोनों से, दण्डनीय होगा \|

This licence is liable to be cancelled if the licensed premises are not found conforming to the description given on the approved plan attached hereto and contravention of any of the rules and conditions under which this licence is granted and the holder of this licence is also punishable for the first offence with simple imprisonment which may be extend to one month, or with fine which may extend to one thousand rupees, or with both and for every subsequent offence with simple imprisonment which may extend to three months, or with fine which may extend to five thousand rupees or with both.

Note:-This is system generated document does not require signature.

भारत सरकार
Government of India
वाणिज्य और उद्योग मंत्रालय
Ministry of Commerce & Industry
पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पैसो)
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रांची- 834001
Sri Mohan, 3rd Floor, Sita Compound, 5 Main Road, Behind Sushila Automobiles,
Ranchi - 834001

E-mail : dycceranchi@explosives.gov.in
Phone/Fax No : 651 - 2332689, 2332690, 2332688

संख्या /No. : P/HQ/JH/15/1065 (P257355)

दिनांक /Dated : 24/02/2023

24 FEB 2023

सेवा में /To,

M/s. Adhunik Power & Natural Resources Ltd.,
Village-Padampur,Behind PGCIL Substation,,
Adityapur-Kandra Road,,
Taluka: Adityapur(Gamharia),
District: SARAIKELLA KHARSWAN,
State: Jharkhand
PIN: 832105

विषय /Sub : Plot No, Plot No. 161,, Behind PGCIL.Substation adityapur, Kandra Road, Village- Padampur, Adityapur(Gamharia), Taluka: Adityapur (Gamharia), District: SARAIKELLA KHARSWAN, State: Jharkhand, PIN: 832402 में स्थित विद्यमान पेट्रोलियम वर्ग C अधिष्ठापन में अनुज्ञप्ति सं P/HQ/JH/15/1065 (P257355) के नवीकरण के संदर्भ में।
Existing Petroleum Class C Installation at Plot No, Plot No. 161,, Behind PGCIL.Substation adityapur, Kandra Road, Village- Padampur, Adityapur(Gamharia), Taluka: Adityapur(Gamharia), District: SARAIKELLA KHARSWAN, State: Jharkhand, PIN: 832402 - Licence No. P/HQ/JH/15/1065 (P257355) - Renewal regarding.

महोदय /Sir (s),

कृपया आपके पत्र क्रमांक OIN1307334 दिनांक 23/02/2023 का अवलोकन करें।
Please refer to your letter No.: OIN1307334, dated 23/02/2023

अनुज्ञप्ति संख्या P/HQ/JH/15/1065 (P257355) दिनांक 23/12/2011 को दिनांक 31/12/2026 तक नवीनीकृत कर इस पत्र के साथ अग्रेषित की जा रही है।
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कृपया पेट्रोलियम नियम 2002 के अधीन बनाए गए नियम 148 में दी गई प्रक्रिया का कड़ाई से पालन करें। अनुज्ञप्ति के नवीकरण हेतु समस्त दस्तावेजों को अनुज्ञप्ति की वैधता समाप्त होने की तिथि से कम से कम 30 दिन पूर्व कार्यालय को प्रेषित करें।
Please follow the procedure strictly as laid down in rule 148 of the Petroleum Rules, 2002 and submit complete documents for the Renewal of the licence **so as to reach this** office on or before the date on which Licence expires.

कृपया पावती दें
Please acknowledge the receipt.

भवदीय /Yours faithfully,

((आशेन्द्र सिंह)
(Ashendra Singh))
उप मुख्य विस्फोटक नियंत्रक
Dy. Chief Controller of Explosives
रांची/Ranchi

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(अधिक जानकारी जैसे आवेदन की स्थिति, शुल्क तथा अन्य विवरण के लिए हमारी वेबसाइट : http://peso.gov.in देखें)
(For more information regarding status,fees and other details please visit our website: http://peso.gov.in)

RELIANCE INDUSTRIES LIMITED

Jamnagar-DTA Manufacturing Division

PO Motikhavdi Meghpar Padana Gagva Jamnagar

Gujarat,India.PIN:361140

CENTRAL LABORATORY

REFINERY AND PETROCHEMICALS DIVISION

BATCH FORMATION CERTIFICATE

LIGHT DIESEL OIL

IS 15770:2021

Batch No. : LDO1/RIL/651-023/386
REF/QA/QC No. : JMD/LDO1/078/11-2024
Tank No. : 651023

Date of Report : Nov 3, 2024
Date of Testing : Nov 3, 2024
Date of Sampling : Nov 3, 2024
LIMS Id. : 25121743

Sr. No.	Tests	Unit	Method	Limit	Test Results
1	Pour point	°C	IS 1448[P:10 / Section-2]	21 Max	-6
2	Flash point (PMCC)	°C	IS 1448[P:21]	66.0 Min	82.0
3	Kinematic viscosity at 40°C	cSt	IS 1448[P:25 / Section-1]	2.500 - 15.000	3.895
4	Density at 15°C	kg/m3	IS 1448[P:16]	To report	909.5
5	Total Sulphur	% mass	ASTM D4294	0.005 - 1.500	0.310
6	Water content	% vol	IS 1448[P:40]	0.25 Max	0.05

Note :

1) Product conforms to the specification.
2) Results relate to the item tested only.
3) Test report shall not be reproduced except in full without written permission of the Laboratory.
4) Test item is analysed with latest available test methods.
5) Sampling not done by Laboratory.
6) The product meets requirement as per IS 15770-2021.

Kapil Sharma

Authorized Signatory
For and on behalf of
RELIANCE INDUSTRIES LIMITED

Place : Sikka, India
Date : Nov 4, 2024

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--End of Report--

Test Report

Baseline Ground Water Quality Report

Discipline	Chemical	Group	Water	Sample Description	Ground Water		
Report Release Date		31st March, 2025		Type of Industry(If any)	Thermal Power Plant		
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.					
Sampling Date		13/03/2025	Mode of sample collection	By YBAEEL Team		Sample Code	250313-GW-02
Sampling Plan		YBAEEL/SP/March/12/2025		Sampling Method		IS -17614 (Part-1):2021	
Sampling Location		Hariharpur Village		Sampling Source		Ground Water	
Sample pkg. Condition		Sealed Pack in PP Bottle		Sample Quantity		3000 ml	
Meteorological Cond. of Field		W.C.– Clear		RH % - 49		Temp. – 32°C	
Sample receipt Date		13/03/2025	Analysis Started on	13/03/2025	Analysis completed on		31/03/2025

******Test Results ******

Sl	Parameter	Test Method	Units	Results	Baseline Ground Water Quality	Permissible Limit (as per IS 10500 Specification)
1.	pH value	IS 3025 (P-11):2022 (Electrometric Method)	*pH*	6.7 at 25.5°C	6.9-7.4	6.5-8.5
2.	Taste	IS 3025 (P-07 & 08):2017&2023	--	Agree.	Agreeable	Agreeable
3.	Odour	IS 3025 (P-05):2018	--	Agree.	Unobjectionable	Agreeable
4.	Colour	IS 3025 (P-04):2021 (Visual Comparison Method)	Hazen	<5	<5	5-15
5.	Conductivity	IS 3025 (P-14):2013, RA 2019	µs/cm	640.0 at 25.6°C	--	--
6.	Total Alkalinity (as $CaCO_3$)	IS 3025 (P-23):1986, RA 2019 (Indicator Method)	*mg/l*	150.0	147-269	200-600
7.	Total Hardness (as $CaCO_3$)	IS 3025 (P-21):2009, RA 2019 (EDTA Method)	*mg/l*	220.5	128-308	200-600
8.	Total dissolved solids	IS 3025 (P-16):2023 (Gravimetric Method)	*mg/l*	466.0	251-538	500-2000
9.	Chlorine Residual	IS 3025 (P-26):2021 (Iodometric Method)	*mg/l*	BDL (MDL 0.07)	<0.05	0.2-1
10.	Chloride (as Cl)	IS 3025 (P-32):1988, RA 2019 (Argentometric Method)	*mg/l*	52.12	42-74	250-1000
11.	Fluoride (as F^-)	APHA 4500 F-C 24th edition 2023 (Ion Selective Electrode Method)	*mg/l*	0.22	0.31-0.50	1.0-1.5
12.	Nitrate (as NO_3- N)	APHA 4500 NO_3- (B) 24th edition 2023 (UV Screening Method)	*mg/l*	2.86	03-24	45-No relaxation
13.	Sulphate (as SO_4^{2-})	IS 3025 (P-24-Sec 1):2022 (Turbidity Method)	*mg/l*	68.21	06-28	200-400
14.	Calcium (as Ca)	IS 3025 (P-40): 1991, RA 2019 (EDTA Titrimetric Method)	*mg/l*	74.55	41-99	75-200
15.	Magnesium (as Mg)	APHA 3500 Mg B 24th edition 2023	*mg/l*	8.29	--	30-100
16.	Sodium (as Na^+)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	34.0	--	--
17.	Potassium (as K^+)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	1.0	--	--

Prepared By – Sweta Kumari (Lab Analyst)

31/03/25

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

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

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical & Environmental Engineering Laboratory

Test Report

Baseline Ground Water Quality Report

Discipline	Chemical	Group	Water	Sample Description	Ground Water		
Report Release Date		31st March, 2025		Type of Industry(If any)	Thermal Power Plant		
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.					
Sampling Date		13/03/2025	Mode of sample collection	By YBAEEL Team	Sample Code	250313-GW-02	
Sampling Plan		YBAEEL/SP/March/12/2025		Sampling Method	IS -17614 (Part-1):2021		
Sampling Location		Hariharpur Village		Sampling Source	Ground Water		
Sample pkg. Condition		Sealed Pack in PP Bottle		Sample Quantity	3000 ml		
Meteorological Cond. of Field		W.C.– Clear		RH % - 49	Temp. – 32°C		
Sample receipt Date		13/03/2025	Analysis Started on	13/03/2025	Analysis completed on	31/03/2025	

Sl	Parameter	Test Method	Units	Results	Baseline Ground Water Quality	Permissible Limit (as per IS 10500 Specification)
18.	Cyanide(as CN^-)	IS 3025 (P-27/Sec1):2021 (Titrimetric Method)	*mg/l*	BDL (MDL 1.0)	--	0.05-No relaxation
19.	Arsenic (as As)	APHA 3114 C 24th edition 2023 (Continuous Hydride Generation Method)	*mg/l*	BDL (MDL 0.003)	<0.01	0.01-No relaxation
20.	Copper (as Cu)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	*mg/l*	BDL (MDL 0.01)	<0.01	0.05-1.5
21.	Iron (as Fe)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	*mg/l*	0.63	0.13-0.90	1.0-No relaxation
22.	Lead (as Pb)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	*mg/l*	BDL (MDL 0.02)	<0.01	0.01-No relaxation
23.	Selenium (as Se)	APHA 3114 C 24th edition 2023 (Continuous Hydride Generation Method)	*mg/l*	BDL (MDL 0.01)	--	0.01-No relaxation
24.	Zinc (as Zn)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	*mg/l*	0.11	0.31-0.47	5-15
25.	Cadmium (as Cd)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	*mg/l*	BDL (MDL 0.02)	<0.01	0.003-No relaxation
26.	Mercury (as Hg)	APHA 3112 B 24th edition 2023 (Cold Vapour AAS Method)	*mg/l*	BDL (MDL 0.003)	<0.001	0.001-No relaxation
27.	Chromium (as Cr)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.02	<0.01	0.05-No relaxation
28.	Nickel (as Ni)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--	0.02-No relaxation
29.	Cobalt (Co)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.03)	--	--
30.	Aluminium (as Al)	IS 3025 (P-55):2003, RA 2019 (Eriochrome Cyanine R Method)	*mg/l*	BDL (MDL 0.02)	--	0.03-0.2

Limit is specified as	IS 10500:2012, RA 2018.
Abbreviation	MDL : Minimum detection limit. BDL : Below detection limit,
Env. Condition of Lab	Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility
	This report, in full or in part, shall not be used for advertising or as evidence in any court of law.
	This report cannot be reproduced, except when in full, without the written permission of the CEO..
	The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise
	The liability of the laboratory is limited to the invoiced amount.
	All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Sample complies with prescribed limits.

Prepared By – Sweta Kumari (Lab Analyst)

31/03/25

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

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

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical & Environmental Engineering Laboratory

Test Report

Baseline Ground Water Quality Report

Discipline	Chemical	Group	Water	Sample Description	Ground Water		
Report Release Date		31st March, 2025		Type of Industry(If any)	Thermal Power Plant		
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.					
Sampling Date		13/03/2025	Mode of sample collection	By YBAEEL Team		Sample Code	250313-GW-01
Sampling Plan		YBAEEL/SP/March/12/2025		Sampling Method		IS -17614 (Part-1):2021	
Sampling Location		Srirampur Village		Sampling Source		Ground Water	
Sample pkg. Condition		Sealed Pack in PP Bottle		Sample Quantity		3000 ml	
Meteorological Cond. of Field		W.C.– Clear		RH % - 50		Temp. – 32°C	
Sample receipt Date		13/03/2025	Analysis Started on	13/03/2025	Analysis completed on		31/03/2025

******Test Results ******

Sl	Parameter	Test Method	Units	Results	Baseline Ground Water Quality	Permissible Limit (as per IS 10500 Specification)
1.	pH value	IS 3025 (P-11):2022 (Electrometric Method)	*pH*	6.88 at 25.7°C	6.9-7.4	6.5-8.5
2.	Taste	IS 3025 (P-07 & 08):2017&2023	--	Agree.	Agreeable	Agreeable
3.	Odour	IS 3025 (P-05):2018	--	Agree.	Unobjectionable	Agreeable
4.	Colour	IS 3025 (P-04):2021 (Visual Comparison Method)	Hazen	<5	<5	5-15
5.	Conductivity	IS 3025 (P-14):2013, RA 2019	µs/cm	762.0 at 25.6°C	--	--
6.	Total Alkalinity (as $CaCO_3$)	IS 3025 (P-23):1986, RA 2019 (Indicator Method)	*mg/l*	210.0	147-269	200-600
7.	Total Hardness (as $CaCO_3$)	IS 3025 (P-21):2009, RA 2019 (EDTA Method)	*mg/l*	318.0	128-308	200-600
8.	Total dissolved solids	IS 3025 (P-16):2023 (Gravimetric Method)	*mg/l*	494.0	251-538	500-2000
9.	Chlorine Residual	IS 3025 (P-26):2021 (Iodometric Method)	*mg/l*	BDL (MDL 0.07)	<0.05	0.2-1
10.	Chloride (as Cl)	IS 3025 (P-32):1988, RA 2019 (Argentometric Method)	*mg/l*	48.51	42-74	250-1000
11.	Fluoride (as F^-)	APHA 4500 F-C 24th edition 2023 (Ion Selective Electrode Method)	*mg/l*	0.15	0.31-0.50	1.0-1.5
12.	Nitrate (as NO_3^-- N)	APHA 4500 NO_3- (B) 24th edition 2023 (UV Screening Method)	*mg/l*	1.72	03-24	45-No relaxation
13.	Sulphate (as SO_4^{2-})	IS 3025 (P-24-Sec 1):2022 (Turbidity Method)	*mg/l*	40.9	06-28	200-400
14.	Calcium (as Ca)	IS 3025 (P-40): 1991, RA 2019 (EDTA Titrimetric Method)	*mg/l*	61.72	41-99	75-200
15.	Magnesium (as Mg)	APHA 3500 Mg B 24th edition 2023	*mg/l*	39.78	--	30-100
16.	Sodium (as Na^+)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	42.0	--	--
17.	Potassium (as K^+)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	1.0	--	--

Prepared By – Sweta Kumari (Lab Analyst)

31/03/25

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

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

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical & Environmental Engineering Laboratory

YUGANTAR BHARATI
ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Reaching Out for a Brighter Tomorrow

Registered by :- Jharkhand State Pollution Control Borad (JSPCB)
Certified by :- ISO 9001:2015 & ISO 45001:2018

JHARKHAND State Pollution Control Board

Test Report

Baseline Ground Water Quality Report

Discipline	Chemical	Group	Water	Sample Description	Ground Water		
Report Release Date		31st March, 2025		Type of Industry(If any)	Thermal Power Plant		
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.					
Sampling Date		13/03/2025	Mode of sample collection	By YBAEEL Team		Sample Code	250313-GW-01
Sampling Plan		YBAEEL/SP/March/12/2025		Sampling Method		IS -17614 (Part-1):2021	
Sampling Location		Srirampur Village		Sampling Source		Ground Water	
Sample pkg. Condition		Sealed Pack in PP Bottle		Sample Quantity		3000 ml	
Meteorological Cond. of Field		W.C.– Clear		RH % - 50		Temp. – 32°C	
Sample receipt Date		13/03/2025	Analysis Started on	13/03/2025	Analysis completed on		31/03/2025

Sl	Parameter	Test Method	Units	Results	Baseline Ground Water Quality	Permissible Limit (as per IS 10500 Specification)
18.	Cyanide(as CN^-)	IS 3025 (P-27/Sec1):2021 (Titrimetric Method)	*mg/l*	BDL (MDL 1.0)	--	0.05-No relaxation
19.	Arsenic (as As)	APHA 3114 C 24th edition 2023 (Continuous Hydride Generation Method)	*mg/l*	BDL (MDL 0.003)	<0.01	0.01-No relaxation
20.	Copper (as Cu)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	*mg/l*	BDL (MDL 0.01)	<0.01	0.05-1.5
21.	Iron (as Fe)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	*mg/l*	0.84	0.13-0.90	1.0-No relaxation
22.	Lead (as Pb)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	*mg/l*	0.005	<0.01	0.01-No relaxation
23.	Selenium (as Se)	APHA 3114 C 24th edition 2023 (Continuous Hydride Generation Method)	*mg/l*	BDL (MDL 0.01)	--	0.01-No relaxation
24.	Zinc (as Zn)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	*mg/l*	0.63	0.31-0.47	5-15
25.	Cadmium (as Cd)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	*mg/l*	BDL (MDL 0.02)	<0.01	0.003-No relaxation
26.	Mercury (as Hg)	APHA 3112 B 24th edition 2023 (Cold Vapour AAS Method)	*mg/l*	BDL (MDL 0.003)	<0.001	0.001-No relaxation
27.	Chromium (as Cr)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	<0.01	0.05-No relaxation
28.	Nickel (as Ni)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.005	--	0.02-No relaxation
29.	Cobalt (Co)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.03)	--	--
30.	Aluminium (as Al)	IS 3025 (P-55):2003, RA 2019 (Eriochrome Cyanine R Method)	*mg/l*	BDL (MDL 0.02)	--	0.03-0.2

Limit is specified as	IS 10500:2012, RA 2018.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit.
Env. Condition of Lab	Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility
	This report, in full or in part, shall not be used for advertising or as evidence in any court of law.
	This report cannot be reproduced, except when in full, without the written permission of the CEO..
	The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise
	The liability of the laboratory is limited to the invoiced amount.
	All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Sample complies with prescribed limits.

Prepared By – Sweta Kumari (Lab Analyst)

31/03/25

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

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

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Test Report

ULR (Unique Lab Report) No.	TC 1 2 9 8 9 2 5 0 0 0 0 0 0 5 7 9 F				
Discipline: Chemical	Group: Atmospheric Pollution		Sample Description: Ambient Noise		
Report Release Date	29th March, 2025		Report ID	YBAEEL-2503-12	
W. Order / JSPCB App. No.	3030007508		Work Order Date	07.03.2025	
Type of Industry(If any)	Thermal Power Plant		Job code/ Ref. no.	YBAEEL/C/A/March - 25/14	
Report Issue to	M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.				
Sampling Period	11/03/2025 – 12/03/2025		Mode of sample collection	By YBAEEL Team	
Sampling Plan	YBAEEL/SP/March/12/2025		Sampling Method	IS 9989:1981 (RA 2020)	
Meteorological Cond. of Field	W.C.– Clear		RH % - 45	Temp. - 32°C	
Sample receipt Date	13/03/2025	Analysis Started on	13/03/2025	Analysis completed on	29/03/2025

******Test Results ******

Sl.	Locations	Parameters	Units	Day Time (6.00 a.m. to 10.00 p.m.)	Night Time (10.00 p.m. to 6.00 a.m.)	Limits
1.	Near Sati Steel	Leq	dB (A)	47.5	40.6	Day – 75 Night – 70
2.	Near Reservoir	Leq	dB (A)	49.6	41.4	
3.	Near Occupational Health Centre	Leq	dB (A)	47.1	45.7	
4.	Near Main Gate	Leq	dB (A)	61.2	50.2	

- Silence zone is an area comprising not less than 100 meters around hospitals, educational institutions, courts, religious places or any other area which is declared as such by the competent authority.
- Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.
- dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale(A) which is relatable to human hearing.

	Area	Unit	Day Time	Night time
A	Industrial Area	dB (A)	75.0	70.0
B	Commercial Area	dB (A)	65.0	55.0
C	Residential Area	dB (A)	55.0	45.0
D	Silence Zone	dB (A)	50.0	40.0

Limit is specified as	Noise pollution (Regulation & Control) Rules, 2000.
Abbreviation	MDL : Minimum detection limit. BDL : Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility.
	This report, in full or in part, shall not be used for advertising or as evidence in any court of law.
	This report cannot be reproduced, except when in full, without the written permission of the CEO.
	The samples collected shall be destroyed after 7 days from the date of issue of the certificate unless specified otherwise
	The liability of the laboratory is limited to the invoiced amount.
	All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Samples comply with prescribed limit.

Sample Drawn By – Angad Munda
Tested By – Akash Khalkho (Lab Analyst)

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

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)
Authorized Signatory
Atmospharic Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Test Report

ULR (Unique Lab Report) No.	TC 1 2 9 8 9 2 5 0 0 0 0 0 0 5 8 0 F				
Discipline: Chemical	Group: Atmospheric Pollution			Sample Description:	Work Zone Noise
Report Release Date	29th March, 2025			Report ID	YBAEEL-2503-12
W. Order / JSPCB App. No.	3030007508			Work Order Date	07.03.2025
Type of Industry (If any)	Thermal Power Plant			Job code/ Ref. no.	YBAEEL/C/A/March - 25/14
Report Issue to	M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.				
Sampling Period	12/03/2025 – 13/03/2025		Mode of sample collection	By YBAEEL Team	
Sampling Plan	YBAEEL/SP/March/12/2025		Sampling Method	IS : 9989:1981 (RA 2020), CPCB (Factory Act 1948)	
Meteorological Cond. of Field	W.C.– Clear		RH % - 47	Temp. - 32°C	
Sample receipt Date	13/03/2025	Analysis Started on	13/03/2025	Analysis completed on	29/03/2025

******Test Results ******

Sl.	Locations	Parameters	Units	Day Time (6.00 a.m. to 10.00 p.m.)	Night Time (10.00 p.m. to 6.00 a.m.)	Limits
1.	Near CHP Area	Leq	dB (A)	67.4	59.2	85
2.	Near Cooling Tower	Leq	dB (A)	80.3	78.4	
3.	Near Turbine Floor	Leq	dB (A)	83.1	79.8	
4.	Pump House	Leq	dB (A)	76.8	72.1	
5.	Near Compressor House	Leq	dB (A)	82.1	80.5	

Limit is specified as	Factory Act. 1948 (8 hrs.)
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit.
Env. Condition of Lab	Laboratory is maintaining. Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility.
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	All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Samples comply with prescribed limit.

Sample Drawn By – Angad Munda
Tested By – Akash Khalkho (Lab Analyst)

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

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

Authorized Signatory
Atmospharic Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	5	0	0	0	0	0	0	5	7	8	F

Discipline	Chemical	Group	Atmospheric Pollution	Sample Description	Ambient Air Quality (Buffer Zone)
Report Release Date		29th March, 2025		Report ID	YBAEEL-2503-12
W. Order / JSPCB App. No.		3030007508		Work Order Date	07.03.2025
Type of Industry(If any)		Thermal Power Plant		Job code/ Ref. no.	YBAEEL/C/A/March - 25/14
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.			
Sampling Period		12/03/2025 – 13/03/2025	Mode of sample collection		By YBAEEL Team
Sampling Plan		YBAEEL/SP/March/12/2025	Sampling Method	IS:5182 and CPCB Air Manual Volume-1(NAAQM/36/2012-13)	
Sampling Locations		A. Padampur Village B. Bada Hariharpur Village C. Srirampur Village			
Meteorological Cond. of Field		W.C.– Clear	RH % - 47	Temp. - 31°C	W.D.– NE-SW
Sample receipt Date		13/03/2025	Analysis Started on	13/03/2025	Analysis completed on 29/03/2025

******Test Results ******

Parameters	Test Methods	Units	Sampling Location			Limits
			Site A	Site B	Site C	
Particulate matter (PM_{10})	IS:5182 (P-23) 2006, RA 2022	µg/m³	92.4	88.4	85.6	100
Particulate matter ($PM_{2.5}$)	IS:5182 (P-24) 2019	µg/m³	48.7	43.3	40.3	60
Sulphure Dioxide (SO_2)	IS:5182 (P-2/Sec1) 2023	µg/m³	20.4	17.4	14.9	80
Nitrogen Dioxide (NO_2)	IS:5182 (P-6) 2006 RA 2022	µg/m³	35.5	50.9	26.4	80
Ammonia (NH_3)	IS:5182 (P-25) 2018	µg/m³	43.6	49.1	45.4	400
Ozone (O3)	IS:5182 (P-09):1974, RA 2019	µg/m³	11.9	14.2	9.9	180 (1 hr.)
Lead (Pb)	IS:5182 (P-22) 2004, RA 2019	µg/m³	0.006	0.043	BDL (MDL- 0.004)	1
Nickel (Ni)	IS:5182 (P-26) 2020	ng/m³	BDL (MDL- 4)	BDL (MDL- 4)	BDL (MDL- 4)	--
Arsenic (As)	USEPA – IO 3.2	ng/m³	BDL (MDL -02)	BDL (MDL -02)	BDL (MDL -02)	--

Limit is specified as	Environmental (Protection) Rule – 1986.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit.
Env. Condition of Lab	Laboratory is maintaining. Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility.
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	All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Samples comply with prescribed limits.

Sample Drawn By – Angad Munda
Tested By – Akash Khalkho (Lab Analyst)

29/03/25

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

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

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Test Report

Discipline	Chemical	Group	Atmospheric Pollution	Sample Description	Ambient Air Quality (Buffer Zone)
Report Release Date		29th March, 2025		Report ID	YBAEEL-2503-12
W. Order / JSPCB App. No.		3030007508		Work Order Date	07.03.2025
Type of Industry(If any)		Thermal Power Plant		Job code/ Ref. no.	YBAEEL/C/A/March - 25/14
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.			
Sampling Period		12/03/2025 – 13/03/2025		Mode of sample collection	By YBAEEL Team
Sampling Plan		YBAEEL/SP/March/12/2025		Sampling Method	IS:5182 and CPCB Air Manual Volume-1(NAAQM/36/2012-13)
Sampling Locations		A. Padampur Village B. Bada Hariharpur Village C. Srirampur Village			
Meteorological Cond. of Field		W.C.– Clear	RH % - 47	Temp. - 31°C	W.D.– NE-SW
Sample receipt Date		13/03/2025	Analysis Started on 13/03/2025	Analysis completed on	29/03/2025

******Test Results ******

Parameters	Test Methods	Units	Sampling Location			Limits
			Site A	Site B	Site C	
Carbon Monoxide (CO)	SOP No. YBAEEL/SOP/AIR/01	mg/m³	BDL (MDL 1.8)	BDL (MDL 1.8)	BDL (MDL 1.8)	4
Benzene (C_6H_6)	IS:5182 (P-11) 2006, RA 2022	µg/m³	BDL (MDL 0.06)	BDL (MDL 0.06)	BDL (MDL 0.06)	--
Benzo (a)pyrene (BaP) (Particulate Phase Only)	IS:5182 (P-12) 2004, RA 2019	ng/m³	BDL (MDL 0.2)	BDL (MDL 0.2)	BDL (MDL 0.2)	--

Limit is specified as	Environmental (Protection) Rule – 1986.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit,
Env. Condition of Lab	Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility.
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	All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Samples comply with prescribed limits.

Sample Drawn By – Angad Munda
Tested By – Akash Khalkho (Lab Analyst)

29/03/25

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

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

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Test Report

ULR (Unique Lab Report) No.	TC 1 2 9 8 9 2 5 0 0 0 0 0 0 5 7 7 F				
Discipline: Chemical	Group: Atmospheric Pollution			Sample Description	Ambient Air Quality (Core Zone)
Report Release Date	29th March, 2025			Report ID	YBAEEL-2503-12
W. Order / JSPCB App. No.	3030007508			Work Order Date	07.03.2025
Type of Industry(If any)	Thermal Power Plant			Job code/ Ref. no.	YBAEEL/C/A/March - 25/14
Report Issue to	M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.				
Sampling Period	11/03/2025 – 12/03/2025	Mode of sample collection		By YBAEEL Team	
Sampling Plan	YBAEEL/SP/March/12/2025	Sampling Method	IS:5182 and CPCB Air Manual Volume-1(NAAQM/36/2012-13)		
Sampling Locations	A. Near Admin Building		22°50'22"N, 86°03'35"E		
	B. Near Old Gate		22°50'37"N, 86°03'53"E		
	C. Near Laboratory		22°50'27"N, 86°03'52"E		
Meteorological Cond. of Field	W.C.– Clear	RH % - 49	Temp. - 32°C	W.D.– East-West	
Sample receipt Date	13/03/2025	Analysis Started on	13/03/2025	Analysis completed on	29/03/2025

******Test Results ******

Parameters	Test Methods	Units	Sampling Location			Limits
			Site A	Site B	Site C	
Particulate matter (PM_{10})	IS:5182 (P-23) 2006, RA 2022	µg/m³	96.8	93.6	90.4	100
Particulate matter ($PM_{2.5}$)	IS:5182 (P-24) 2019	µg/m³	45.4	47.5	43.7	60
Sulphure Dioxide (SO_2)	IS:5182 (P-2/Sec1) 2023	µg/m³	25.1	23.4	16.2	80
Nitrogen Dioxide (NO_2)	IS:5182 (P-6) 2006 RA 2022	µg/m³	39.6	33.7	25.5	80
Ammonia (NH_3)	IS:5182 (P-25) 2018	µg/m³	80.7	51.2	76.3	400
Ozone (O3)	IS:5182 (P-09):1974, RA 2019	µg/m³	17.8	13.9	11.2	180 (1 hr.)
Lead (Pb)	IS:5182 (P-22) 2004, RA 2019	µg/m³	0.013	0.019	0.011	1
Nickel (Ni)	IS:5182 (P-26) 2020	ng/m³	BDL (MDL- 4)	BDL (MDL- 4)	BDL (MDL- 4)	--
Arsenic (As)	USEPA – IO 3.2	ng/m³	BDL (MDL -02)	BDL (MDL -02)	BDL (MDL -02)	--

Limit is specified as	Environmental (Protection) Rule – 1986.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility.
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	The liability of the laboratory is limited to the invoiced amount.
	All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Samples comply with prescribed limits.

Sample Drawn By – Angad Munda
Tested By – Akash Khalkho (Lab Analyst)

29/03/25

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)
Authorized Signatory
Atmospharic Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

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

Test Report

Discipline	Chemical	Group	Atmospheric Pollution	Sample Description	Ambient Air Quality (Core Zone)
Report Release Date		29th March, 2025		Report ID	YBAEEL-2503-12
W. Order / JSPCB App. No.		3030007508		Work Order Date	07.03.2025
Type of Industry(If any)		Thermal Power Plant		Job code/ Ref. no.	YBAEEL/C/A/March - 25/14
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.			
Sampling Period		11/03/2025 – 12/03/2025		Mode of sample collection	By YBAEEL Team
Sampling Plan		YBAEEL/SP/March/12/2025		Sampling Method	IS:5182 and CPCB Air Manual Volume-1(NAAQM/36/2012-13)
Sampling Locations		A. Near Admin Building		22°50'22"N, 86°03'35"E	
		B. Near Old Gate		22°50'37"N, 86°03'53"E	
		C. Near Laboratory		22°50'27"N, 86°03'52"E	
Meteorological Cond. of Field		W.C.– Clear	RH % - 49	Temp. - 32°C	W.D.– East-West
Sample receipt Date		13/03/2025	Analysis Started on 13/03/2025	Analysis completed on	29/03/2025

******Test Results ******

Parameters	Test Methods	Units	Sampling Location			Limits
			Site A	Site B	Site C	
Carbon Monoxide (CO)	SOP No. YBAEEL/SOP/AIR/01	mg/m³	BDL (MDL 1.8)	BDL (MDL 1.8)	BDL (MDL 1.8)	4
Benzene (C_6H_6)	IS:5182 (P-11) 2006, RA 2022	µg/m³	BDL (MDL 0.06)	BDL (MDL 0.06)	BDL (MDL 0.06)	--
Benzo (a)pyrene (BaP) (Particulate Phase Only)	IS:5182 (P-12) 2004, RA 2019	ng/m³	BDL (MDL 0.2)	BDL (MDL 0.2)	BDL (MDL 0.2)	--

Limit is specified as	Environmental (Protection) Rule – 1986.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit,
Env. Condition of Lab	Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility.
	This report, in full or in part, shall not be used for advertising or as evidence in any court of law.
	This report cannot be reproduced, except when in full, without the written permission of the CEO.
	The samples collected shall be destroyed after 7 days from the date of issue of the certificate unless specified otherwise
	The liability of the laboratory is limited to the invoiced amount.
	All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Samples comply with prescribed limits.

Sample Drawn By – Angad Munda
Tested By – Akash Khalkho (Lab Analyst)

29/03/25

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

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

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Adhunik
GROUP OF INDUSTRIES

ADHUNIK POWER & NATURAL RESOURCES LIMITED

WORKS : Village - Padampur, Behind P.G.C.I.L. Substation,
Adityapur - Kandra Road, Saraikela - Kharsawan, PIN - 832402 Jharkhand
Phone : +91 - 657 - 6628400, Fax : +91 - 657 - 6628440
CIN - U40101WB2005PLC102935

01.12.2022

Office Order

As per the directions of the Ministry of Environment & Forest, Government of India while granting the Environment Clearances vide letter no **J-13011/8/2009-IA.II(T), dated 29th Aug 2009 (Unit I) & Letter No :J13012/8/2009-IA .II (T) dtd 9th May 2011** to our 2x270 MW Power Plant, the Management considering the importance of Environmental concerns and set up the Environment Cell under the chair of Plant In charge who is directly reporting the Managing Director of Organization. The Cell is functional since 2009 and is equipped with qualified professionals of the fields.

Roles & Responsibility of Environment Cell

Following the broad scope of the Cell

- Understanding Environment issues in Adhunik power & Natural Resources Ltd during Construction & Operation and Maintenance Phase.
- Framing appropriate scope of work for requisite environment management, EIA & various other complex issues to address those with tailor made solutions,
- Awarding the consultancy tasks for environmental management & EIAs, Modeling, Monitoring etc & other complex studies to the appropriate agency and also sometimes In-house work of Monitoring,
- Dealing with JSPCB/CPCB/MoEF &CC for various aspects including obtaining clearances for Plant and Plant led development and policy makings at State and National level,
- The meeting of the management of M/s APNRL shall be conducted in which the budgetary allocation for the EMP shall be discussed and finalized and comprehensive EMP shall be prepared as per the guidelines of CPCB.
- Preparation of Environmental Management Plans- Basically Assisting Engineering Section for preparation Master Plan for existing plant to address policy regulations issued by MOEF& CC from time to time,
- Operating and upgrading the existing Hazardous Waste Management Facilities for Plant Area as per latest regulations.- (Development and Operation of TSDF at APNRL),
- Initiating dialogs, meeting & developing participatory approach with the key stakeholders for solving any typical pollution related problems.
- Review of EMP for various sections of plant and suggest modifications if any for better Env Management,
- Representing APNRL at the State and National level platform for Environment Management
- Comments & advice on draft amendment, notifications on Environmental Laws.
- Imparting knowledge and raising awareness for Environment Protections among APNRL key officers and other related stakeholders,
- The Plant Incharge will be responsible for environmental issues at plant.

The responsibilities of the various members of the environment management cell are enclosed as **Annexure I:**

Adhunik
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ADHUNIK POWER & NATURAL RESOURCES LIMITED
WORKS : Village - Padampur, Behind P.G.C.I.L. Substation,
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CIN - U40101WB2005PLC102935

01.12.2022

Annexure I

Responsibilities of the members of the environment management cell

S. No.	Designation	Responsibility	Reporting to
01	Managing Director	Environmental policy and directions	
02	Plant Head	Overall responsibility for environmental management and decision making for all environmental issues	Managing Director
03	Environment Manager Kamlesh Kumar (M.Sc.- Environmental Science)	Overall in-charge of operation of environmental management facilities of respective sections. Ensure environmental monitoring as per appropriate procedures, Ensure correct records of generation, handling, storage, transportation and disposal of solid hazardous wastes. Ensuring legal compliance by properly undertaking activities as laid down by various regulatory agencies from time to time and interacting with the same and arranging awareness programme among the workers.	Plant Head
04	CSR Manager Sanjeet Sinha (M.Sc – Maths)	Responsibility to implement social impact improvement /mitigation measures.	Plant Head
05	Safety Manager Bidesh Bid B.Sc in Chemistry(H) Diploma in Industrial Safety	Participating in workplace safety and health planning meetings. Ensuring managers and supervisors have the appropriate safety and health; Accident prevention; and investigation & training Ensure safety and health hazards are corrected, eliminated or guarded.	Plant Head
06	Medical Officer Dr. Ganesh Prasad Murmu, MBBS	Attend all types of OPD and Emergency Patients. First Aid Treatment to all Cases. Routine Medical Examination of Company Employees. Performing & Conducting various training & awareness programs in company.	Plant Head
06	Chemist Tapas Kumar Mahato B.Sc/ M.Sc	To initiate environmental monitoring as per approved schedule. Prepare & Submit the monitored results and corrective measures in case monitored results are above the specified limit.	Environment Manager
07	Horticulture officer Ravi Prakash Sharma Graduate	Responsible for development of Green belt & Land Scape on vacant land of Plant premises.	Environment Manager

1/12/2022

DGM(HR)

CORPORATE OFFICE : "LANSDOWNE TOWER", 2/1A, Sarat Bose Road, Kolkata - 700 020
Ph : +91 - 33 - 30517100 / 7200 / 7300 • Fax : +91 - 33 - 22890285
REGD. OFFICE : 14, N. S. Road, 2nd Floor, Kolkata - 700 001, Phone No. +91 - 33 - 22428551, 22428553
Website : www.adhunikgroup.com

Kamlesh Kr Jha

From: Kamlesh Kr Jha
Sent: 09 December 2024 15:54
To: 'ro.ranchi-mef@gov.in'; 'ranchijspcb@gmail.com'
Cc: 'JSPCB, Jamshedpur'
Subject: Submission of Half yearly compliance status report (Unit I) for the period – April 2024 to September 2024,-Reg.
Attachments: Annexure XVI-Environment Statement -Unit I - Submission Letter.pdf; Covering Letter with Compliance report of EC -Unit I(APNRL).pdf; Annexure I-CEMS_APNRL.pdf; Annexure III-- DE & DS system at CHP.pdf; Annexure II-Stack Monitoring -Unit I-Sep 24.pdf; Annexure IV-Fly Ash Generation & Utilization (2024-25).pdf; Annexure IX-LDO Certificate 2023-26.pdf; Annexure V-Bottom Ash-Sep 24.pdf; Annexure VI-Ash Pond Outlet-Sep 24.pdf; Annexure VII-ETP Outlet- Sep 24.pdf; Annexure VIII- Sewage Treatment Plant -60KLD.pdf; Annexure XI-Gound Water Baseline-Sep 24.pdf; Annexure XIII-Ambient Air -Sep 24.pdf; Annexure XII-Noise Monitoring -Sep 24.pdf; Annexure XIV-EMC Cell (2).pdf; Annexure X-LDO analysis report.pdf; Annexure XV-EC compliance Half Yearly -Unit I (Oct 23 -March 24).pdf

Ref:- MoEF & CC issued Environment Clearance File No.J-13011/8/2009-IA.II(T), dated 29th Aug 2009.

Sir,

With reference to the above referred Environmental Clearance, we are pleased to submit herewith the half yearly compliance status report with Annexures **(Unit I)** for the period of **April 2024 to September 2024.**
Following Documents are attached :

1. Covering Letter with compliance report of Environment Clearance –Unit I
2. Annexure I- Details of CEMS & Photographs
3. Annexure II- Stack Monitoring Report –Unit I
4. Annexure III- Photographs of DE & DS system
5. Annexure IV- Fly Ash Disposal report (2024-25)
6. Annexure V-Bottom Ash Report
7. Annexure VI-Ash Pond Outlet Water Quality Report
8. Annexure VII-ETP Treated Water Quality Report
9. Annexure VIII- Sewage Treatment Plant -60KLD
10. Annexure IX-LDO Certificate 2023-26
11. Annexure X-LDO analysis report
12. Annexure XI-Baseline Ground water quality report
13. Annexure XII-Noise Monitoring Report
14. Annexure XIII-Ambient Air Quality Report
15. Annexure XIV-EMC Cell
16. Annexure XV-HYC-Unit I (Oct 2023- March 2024)-Acknowledgement Copy
17. Annexure XVI-Environment Statement -Unit I (2023-24)

This is for your reference and record, please.

Thanks & Regards,
Kamlesh Kumar
Adhunik Power & Natural Resources ltd.
Vill.-Padampur,,Behind P.G.C.I.L Substation,Tata-Kandra Road
Saraikela-Kharsawan,Pincode:-832402,Jharkhand
Cell No: - 07763818994
Email Id:- kamleshkrjha@adhunikpower.co.in

Kamlesh Kr Jha

From: Kamlesh Kr Jha
Sent: 24 September 2024 11:30
To: 'ranchijspcb@gmail.com'; 'ro.ranchi-mef@gov.in'; 'jspcb.jsr@gmail.com'
Subject: Submission of Environmental Statement (Form V) for Unit I (1 x 270 MW) of M/s Adhunik Power & Natural Resources Limited,Village-Padampur, Dist-Saraikela-Kharswan, Jharkhand for FY (2023-24).
Attachments: Environment Statement-Unit I (2023-24).pdf

To,
Member Secretary
Jharkhand State Pollution Control Board,
HEC Campus, Dhurva,
Ranchi , Jharkhand.

Sub- Submission of Environmental Statement (Form V) for Unit I (1 x 270 MW) of M/s Adhunik Power & Natural Resources Limited,Village-Padampur, Dist-Saraikela-Kharswan, Jharkhand.

Ref: Environmental Clearance letter No J-13011/8/2009-IA.II(T), Dated 29th Aug 2009.

Dear Sir,

In line with compliance of above referred EC letter point No XXX of general condition, Please find attached herewith Environmental statement (Form V) for the financial year 2023-24.

This is for your kind information & record please.

Thanking You
Regards
Kamlesh Kumar
A.G.M-Environment
Adhunik Power & Natural Resources ltd.
Vill.-Padampur,,Behind P.G.C.I.L Substation,Tata-Kandra Road
Saraikela-Kharsawan,Pincode:-832402,Jharkhand
Cell No: - 07763818994
Email Id:- kamleshkrjha@adhunikpower.co.in
Website:- www.adhunikpower.com

Attachment: As mentioned above

CC: 1. Integrated Regional Office -Ranchi,
Ministry of Environment, Forest and Climate Change,
2nd Floor, Jharkhand State Housing Board (HQ)
Harmu Chaouk, Ranchi, Jharkhand-834002
2. Regional Office. JSPCB, Adityapur