

From: Kamlesh Kr Jha
Sent: 23 May 2024 15:25
To: 'JSPCB, Jamshedpur'; 'ro.ranchi-mef@gov.in'; 'ranchijspcb@gmail.com'; 'nazim.cpcb@nic.in'
Subject: Submission of Half yearly compliance status report (Unit II) of M/s Adhunik Power & Natural Resources Ltd for the period – October 2023 to March 2024, -Reg.
Attachments: Annexure XVI-EMC CELL-31.12.2022.pdf; Annexure XVII-Environment Statement - Unit II (2022-23).pdf; Annexure XVIII-HYC-Unit II (April 2023- Sept 2023)-Acknowledgement Copy.pdf; Covering Letter with Compliance report of EC -Unit II(APNRL).pdf; Annexure I-(Dalma Wildlife sanctuary).pdf; Annexure II-Baseline Calibration water quality report.pdf; Annexure III-Piezometer.pdf; Annexure IV-Surface Water Quality Report.pdf; Annexure IX-CSR-Report April 23- March 24.pdf; Annexure VI-Fly Ash Disposal report (2023-24).pdf; Annexure VII-Bottom Ash Report (1).pdf; Annexure VIII-Ash Pond Outlet Water Quality.pdf; Annexure V-Stack Monitoring Report- U II.pdf; Annexure XI-ETP Treated Water Quality Report.pdf; Annexure XII- Sewage Treatment Plant -60KLD.pdf; Annexure XIII(a)-Coal Test report.pdf; Annexure XIII-LDO Certificate 2023-26.pdf; Annexure XIV-Noise Monitoring Report.pdf; Annexure X-List of Local employees.pdf; Annexure XV-Ambient Air Quality Report.pdf

Ref:- MoEF & CC issued Environment Clearance File No. J-13012/8/2009-IA.II(T), Dated 09th May 2011.

Sir,

With reference to the above referred Environmental Clearance, we are pleased to submit herewith the half yearly compliance status report with Annexures **(Unit II)** for the period of **October 2023 to March 2024**.

Following Documents are attached :

1. Covering Letter with compliance report of Environment Clearance –Unit II
2. Annexure I- (Notification of Dalma Wildlife sanctuary)
3. Annexure II-Baseline Calibration water quality report
4. Annexure III-Piezometer
5. Annexure IV-Surface Water Quality Report
6. Annexure V-Stack Monitoring Report- U II
7. Annexure VI-Fly Ash Disposal report (2023-24)
8. Annexure VII-Bottom Ash Report (1)
9. Annexure VIII-Ash Pond Outlet Water Quality
10. Annexure IX-CSR-Report April 23- March 24
11. Annexure X-List of Local employees
12. Annexure XI-ETP Treated Water Quality Report
13. Annexure XII- Sewage Treatment Plant -60KLD
14. Annexure XIII-LDO Certificate 2023-26
15. Annexure XIII(a)-Coal Test report
16. Annexure XIV-Noise Monitoring Report
17. Annexure XV-Ambient Air Quality Report
18. Annexure XVI-EMC CELL-31.12.2022
19. Annexure XVII-Environment Statement -Unit II (2022-23)
20. Annexure XVIII-HYC-Unit II (April 2023- Sept 2023)-Acknowledgement Copy

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

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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/23524/02

Dated: 23.05.2024

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 II) for the period – October 2023 to March 2024 -Reg.

Ref:- MoEF EC letter No.J-13012/8/2009-IA.II(T), Dated 09th May 2011.

Sir,

With reference to the above-referred Environmental Clearance, we are pleased to submit herewith the half-yearly compliance status report (Unit II) for the period of **October 2023 to March 2024**.

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

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Website

: www.adhunikpower.com

REPORT

**ENVIRONMENTAL COMPLIANCE STATUS REPORT
FOR
EXPANSION OF 1X270 MW COAL BASED POWER
PLANT
(Unit II)**



OCTOBER 2023 – MARCH 2024

**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: J13012/8/2009-IA .II (T) dtd 9th May 2011.		
Period Of Compliances: October 2023 to March 2024		
Sl No	EC Conditions	Status as on 31st March 2024
A. Specific Conditions:		
i.	Environmental clearance for the proposed expansion shall be applicable only for addition of 1x270 MW out of proposed addition of 3x270. However at a later stage when firm coal linkage for second and third units of 270 MW are also available, the project proponent may request the Ministry for inclusion of second and third units i.e. 2x270 MW, which the Ministry shall consider appropriately.	Noted
ii.	The Ministry had issued a draft Notification on 30 th September, 2011 vide S.O. 691(E) under the Environment (Protection) Act, 1986 notifying the areas upto 5 km from the boundary of the protected area of Dalma Wildlife Sanctuary in the State of Jharkhand as the Eco-sensitive Zone. The necessity of obtaining environmental clearance from the National Board for Wild life would arise only if the proposed project area falls within the boundary of the finally notified eco-sensitive zone.	As per notification date 29 th September 2012 project boundary are beyond the stipulated distance from the boundary of the protected area of Dalma Wildlife Sanctuary in the State of Jharkhand as the Eco-sensitive Zone. Notification regarding nearest distance from Dalma wildlife sanctuary enclosed as Annexure I. Complied
iii.	Wildlife conservation plan shall be implemented during the development of project itself and the status of implementation shall be submitted to the Ministry from time to time.	The Wild Life Management Plan (WLMP) has prepared already been approved by PCCF, Ranchi on May'10.2010. Complied
iv.	Vision document specifying prospective plan for the site shall be formulated and submitted to the Ministry within six months.	Vision document report has submitted at MoEF on 30 th Dec 2011. Complied
v.	Possibility for harnessing solar power within the premises of the plant (particularly at available roof tops) shall be examined and status of implementation shall be submitted.	Installation of solar light system in all vulnerable area are completed.
vi.	Transport of coal shall be by rail only. The project proponent shall accordingly take up the matter with the Railways. Status of implementation shall be submitted to the Regional Office of the Ministry from time to time.	As per the Environment (Protection) Amendment Rules, 2020 dated 21 May 2020, Transport of coal by covered trucks, has been permitted.
vii.	A study shall be undertaken by an organization of repute such as RIT, Jamshedpur on source sustainability of water, based on the data of the source of water (Subarnarekha River) for the last 50 years and a report submitted within six months.	Water sustainability report has been prepared by IIT Kharagpur. Report was already submitted to MoEF BBS dated 11.11.11. Complied

viii.	Water usage shall be restricted to 30 MCM.	Complied.
ix.	The project proponent shall seriously undertake rain water harvesting measures and shall develop water storage capacity for a larger period not less than 30 days storage before commissioning of the plant. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology/design within a period of three months from the date of this clearance and details shall be furnished. The design of rain water harvesting shall comprise of rain water collection from the built up and open area in the plant premises. Action plan and road map for implementation shall be submitted to the Ministry within six months.	The Rain water harvesting report has already been submitted and approved from CGWA, Ranchi. 13 no Rain water harvesting structures has been constructed in accordance with the approved rain water harvesting plan. Complied
x.	Existing de-generated water bodies (if any) in the study area shall be regenerated at the project proponents expenses in consultation with the state govt.	Degenerated pond has been renovated as per request from local people/Gram Panchayat .
xi.	Hydrogeology of the area shall be reviewed annually from an institute/ organization of repute to assess impact of surface water and ground regime (especially around ash dyke). In case and deterioration is observed specific mitigation measures shall be undertaken and reports/ data of water quality monitored regularly and maintained shall be submitted to the Regional Office of the Ministry.	Hydrogeology study are conducted by renowned expert organization to access impact of Surface water & ground regime. Regular monitoring of ground water quality in and around ash pond area including heavy metals is being carried out periodically. Ground water analysis report of upstream & Downstream of Ash pond in compared with baseline data for the month of March 2024 are enclosed as Annexure II.
xii.	Source of water for meeting the requirement during lean season shall be specified and submitted to the Regional Office of the Ministry within three months.	Lean season data has already submitted To MoEF BBS on 19th aug 2011. Complied
xiii.	No ground water shall be extracted for use in operation of the power plant even in lean season.	Ground water has not extracted for operation of the Power Plant.
xiv.	No water bodies (including natural drainage system) in the area shall be disturbed due to activities associated with the setting up / operation of the power plant.	Natural drainage system has not been disturbed.
xv.	Minimum required environmental flow suggested by the Competent Authority of the State Govt. shall be maintained in the Channel/ Rivers (as applicable) even in lean season.	We are regular in touch with State Government ,if any suggestion will received from State Government , we shall adhere as per guidelines and same shall be inform to your good office.
xvi.	COC of 5.0 shall be adopted.	COC 5.0 has been considered for cooling tower design.
xvii.	Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg, Cr,As,Pb) and records maintained and submitted to the Regional Office of this Ministry. The data	Regular monitoring of ground water in and around ash pond area including heavy metals is being carried out & report submitted to MoEF. Ground water analysis report of upstream & Downstream of Ash pond compared with baseline data for the month of March 2024 are enclosed as Annexure II. Regular monitoring of ground water level are done through Piezometer installed at following

	so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project.	locations: 1. 22°50'20.9"N 86°03'27.4"E 2. 22°50'09.5"N 86°03'48.1"E 3. 22°49'50.1"N 86°03'37.9"E Photographs of installed Piezometers are enclosed as Annexure III .
xviii.	Monitoring surface water quality in the area shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall be undertaken.	Ground water analysis report of upstream & Downstream of Ash pond and Surface Water Analysis report for the month of March 2024 are enclosed as Annexure II & Annexure IV respectively.
xix.	Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved. The leveling in plant area should be minimum with no or minimal disturbance to the natural drainage of the area.	Complied.
xx.	Provision for installation of FGD shall be provided for future use	FGD space is available on site for future use and installation of FGD are initiated.
xxi.	The project proponent shall undertake measures and ensure that no fugitive fly ash emissions take place at any point of time.	Effective provision for dust suppression system has been strictly implemented at all dust prone areas such as road, coal stock yard, Truck tippler, Ash pond & others areas. Fugitive emission could not be occurred due to nature of wet condition of bottom ash. However additional arrangement of water sprinkling has been implemented in case of emission occurs. In addition, 03 No Water tankers are deployed for dust suppression.
xxii.	Stacks of 275 m height shall be installed and provided with continuous online monitoring equipments for SO _x , NO _x and PM _{2.5} & PM ₁₀ . Exit velocity of flue gases shall not be less than 22 m/sec. Mercury emissions from stack may also monitored on periodic basis.	Twin flue chimney of 275m height has constructed for proper dispersion of flue gases. Online monitoring equipment has installed at chimney. Hg concentration is well within prescribed limits. Complied
xxiii.	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm ³ .	High efficient ESPs of 32 fields have installed to ensure control PM emission in flue gas. Stack Monitoring report from For the month of March 2024 are enclosed as Annexure V.
xxiv.	Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	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. Complied
xxv.	Utilization of 100% Fly Ash generated shall be made from 4 th year of operation. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.	Fly Ash utilization are adhered in compliance with MoEF&CC notification dated 31.12.2021. Fly Ash generation & Utilization report (April 2023 to March 2024) are enclosed as Annexure VI .

xxvi.	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized fly 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 emanating from the existing ash pond. No ash shall be disposed off in low lying area.	02 No Silos has Constructed to storage of fly ash. 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 pond For the month of March 2024 are enclosed as Annexure VII & Annexure VIII respectively.
xxvii.	Ash pond shall be lined with HDPE/LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.	Complied.
xxviii.	For disposal of Bottom Ash in abandoned mines (if proposed to be undertaken) shall be done after obtaining due permission from DGMS and after ensuring that the bottom and sides of the mined out areas are adequately lined with clay before Bottom Ash is filled up. The project proponent shall inform the State Pollution Control Board well in advance before undertaking the activity	Not Applicable.
xxix.	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.6 % and 34 % respectively at any given time. In case of variation of coal quality at any point of time fresh reference shall be made to MOEF for suitable amendments to environmental clearance 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.
xxx.	Green Belt consisting of 3 tiers of plantations of native species around plant and at least 75 m width shall be raised. The density of tree shall not less than 2500 per ha and survival rate not less than 80 %.	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.
xxxi.	Over and above the green belt, as carbon sink, social forestry shall be carried out in close consultation with the Forests Department. The project proponent shall accordingly identify blocks of land / degraded forests and shall undertake regeneration of degraded forests at a large scale. In pursuance to this the project proponent shall formulate time bound action plan along with financial allocation and shall submit status of implementation to the Ministry within six months.	Letter has been submitted to Forest Department for guidance on implementation of social forestry.

xxxii.	At least three nearest village shall be adopted and basic amenities like development of roads, drinking water supply, primary health centre, primary school etc shall be developed in co-ordination with the district administration.	APNRL has adopted villages - Barahariharpur - Padampur - Srirampur CSR is also providing the facilities in following villages - Pindrabera - Chotahariharpur - Ramjivanpur - Bikanipur etc. Details of CSR activity enclosed as Annexure IX.
xxxiii.	The project proponent shall also adequately contribute in the development of the neighboring villages. Special package with implementation schedule for providing potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.	Details of CSR activity enclosed as Annexure IX.
xxxiv.	A time bound implementation of the CSR shall be formulated within six months and submitted to the Ministry. CSR schemes shall be undertaken based on need assessment in and around the villages within 5 km of the site and in constant consultation with the village Panchayat and the District Administration. As part of CSR, prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken.	List of local employed youth enclosed as Annexure X. Complied
xxxv.	For the tribal families (if any) living in the area within 5.0 Km of site, affected directly or indirectly by the proposed project, specific schemes for upliftment of their sustainable livelihood shall be prepared with time bound implementation and in-built monitoring programme. The status of implementation shall be submitted to the Regional Office of the Ministry from time to time.	CSR activities are being carried out in the surrounding villages keeping in mind the upliftment of tribal families. Details of CSR activity enclosed as IX .
xxxvi.	An amount of Rs 23.70 Crores shall be earmarked as one time capital cost for CSR programme as committed by the project proponent. Subsequently a recurring expenditure of Rs 4.74 Crores per annum shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within six month along with road map for implementation.	We have submitted copy of capital cost & year wise recurring expenditure on CSR activities to MoEF &CC, Ranchi Office on 05.12.2018. Complied.
xxxvii.	It shall be ensured that in-built monitoring mechanism for the schemes identified is in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time	All CSR activities are monitored on weekly and monthly basis. We have conducted social audit through renowned organization who are well aware about Social Audit in Jharkhand region. Copy of Social audit shall be submitted shortly.

B. General Conditions:		
i.	The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not do not get mixed.	Complied. Treated effluent analysis report of ETP from For the month of March 2024 are enclosed as Annexure XI. Adequate and separate drainage structures has provided to channel storm water generated onsite into rain water harvesting structures constructed in accordance with the approved rain water harvesting plan.
ii.	A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation	STP 60 KI capacity (03 No) has installed within plant premises to treat sewage waste. Photographs enclosed as Annexure XII.
iii.	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry.	The design of coal yard along with provision of fire safety measures viz. fire hydrants, water sprinklers has installed. Complied
iv.	Storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil.	Approval received on dated 24/02/2022. License No. P/HQ/JH/15/1065 (P257355), valid upto 31.12.2026 for LDO storage installation (under Petroleum Class "C") for operations. Copy of Approval are enclosed as Annexure XIII. APNRL is using liquid fuel with sulfur content variation between 0.80 -1.5% which is provided by HPCL. Copy of Test report are enclosed as Annexure XIII(a) Emergency Response Plan (ERP) has prepared as part of the project ESMS to cater to potential emergencies/risks identified.
v.	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Plant is in operational condition however A first aid center comprising with necessary medical facilities is made available onsite to provide emergency medical aid to both contract workers and company staff. Complied.
vi.	Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 85 dBA from source. For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/less noisy areas	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 2024 are enclosed As Annexure XIV.

vii.	Regular monitoring of ambient air ground level concentration of SO ₂ , NO _x , PM _{2.5} & PM ₁₀ and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry. The data shall also be put on the website of the company.	Ambient Air monitoring reports carried out by NABL accredited Laboratory for the month of March 2024 are enclosed As Annexure XV. Review of air quality monitoring results revealed compliance to NAAQS. Realtime data of CAAQMS has been uploaded at CPCB & JSPCB website.
viii.	Provision shall be made for the housing of construction labor (as applicable) within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Plant is in operational condition and local labors are coming from nearby villages. Complied
ix.	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in .	Complied
x.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad / Municipal Corporation, urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	A copy of EC has been submitted in Gram Panchayat & DC office and copy of Environment Clearance has been uploaded on company website.
xi.	An Environmental Cell comprising of at least one expert in environmental science / engineering, occupational health and social scientist, shall be created at the project site itself and shall be headed by an officer of appropriate superiority and qualification. It shall be ensured that the Head of the Cell shall directly report to the head of the organization and he shall be held responsible for implementation of environmental regulations and social impact improvement/mitigation measures.	A Environmental Management Cell consist high qualified environmental professionals are being operational onsite to ensure effective implementation of specific EMPs. Organization chart of Environmental Management Cell enclosed as Annexure XVI.

xii.	The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM (PM _{2.5} & PM ₁₀), SO ₂ , NO _x (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.	The updated compliance status of the stipulated EC conditions along with monitored data has been uploaded on the company website. The monitoring data (SPM, RSPM, SO ₂ , NO _x) for both ambient air quality and chimney emissions is being displayed at the main gate of the company. Compliance status of the stipulated EC conditions has been uploaded on company website and hard copy of same has been submitted for the period of April 2022 to September 2022 in office of MoEF, Ranchi & CPCB office, Kolkata along with monitored data.
xiii.	The environment statement for each financial year ending 31 st September in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.	The last environmental statement for financial year (2022-23) in Form V has submitted to JSPCB dated 20 th Sep 2023. Acknowledgement copy of same attached as Annexure XVII. Environment Statement (2022-23) has been uploaded on company website.
xiv.	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests	Last six monthly reports for the project along with environmental monitoring data submitted to MoEF RO at Ranchi office vide letter No MOE&F,RNC/HYC/KKJ/281123/02 ,dated 28 TH November 2023. Acknowledgement copy of same attached as Annexure XVIII.
xv.	Regional Office of the Ministry of Environment & Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six monthly basis. Criteria pollutants levels including NO _x (from stack & ambient air) shall be displayed at the main gate of the power plant.	A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information already submitted to the Board. The updated compliance status of the stipulated EC conditions along with monitored data has been uploaded on the company website. The monitoring data (SPM, RSPM, SO ₂ , NO _x) for both ambient air quality and chimney emissions is being displayed at the main gate of the company.

xvi.	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment 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.
xvii.	The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant	Complied
xviii.	Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry at Bangalore / CPCB/ SPCB who would be monitoring the compliance of environmental status	We ensure.



कार्यालय :- प्रधान मुख्य वन संरक्षक झारखण्ड, राँची।

पत्रांक:-19एम01(5)29/2008 2574 दिनांक:-23.7.09

सचिव,
वन एवं पर्यावरण विभाग,
झारखण्ड सरकार, राँची।

मैसर्स आधुनिक थर्मल एनर्जी लिमिटेड के कान्झा पदमपुर, श्री रामपुर, रामचन्द्रपुर मौजा, जिला-सरायकेला-खरसावा में स्थापित किये जाने वाले थर्मल पावर प्रोजेक्ट के लिए पर्यावरणीय स्वीकृति के संबंध में।

विभागीय पत्रांक-308, दिनांक-04.02.09

उपर्युक्त विषयक संदर्भ में सूचित करना है कि प्रधान मुख्य वन संरक्षक, जैव विविधता संरक्षण एवं मुख्य वन्यप्राणी प्रतिपालक, झारखण्ड, राँची ने अपने पत्रांक 463, दिनांक-02.07.2009 (छायाप्रति संलग्न) द्वारा संबंधित विषय पर प्रतिवेदन/मंतव्य समर्पित किया है। उक्त प्रतिवेदन एवं उपलब्ध अभिलेखों के आधार पर प्रस्तावित परियोजना स्थल के संबंध में स्थिति निम्नवत् है :-

1. विषयक थर्मल पावर प्रोजेक्ट काण्डा पदमपुर, श्रीरामपुर, रामचन्द्रपुर मौजा की गैर-वन भूमि पर स्थापित किये जाने का प्रस्ताव है।
2. उपरोक्त पावर प्रोजेक्ट दलमा वन्यप्राणी आश्रयणी की निकटतम सीमा से लगभग 7.5 कि०मी० दूर स्थापित होगा। प्रस्तावित क्षेत्र की 10 कि०मी० त्रिज्या के अंदर अवस्थित वन भूमि सिंहभूम गज आरक्ष्य का भाग है।
3. वन प्रमण्डल पदाधिकारी, वन्यप्राणी प्रमण्डल, राँची के द्वारा पावर प्रोजेक्ट के लिए प्रस्तावित स्थल को प्रस्तावित इको-सेंसिटिव जोन से सटा हुआ बताया गया है, जबकि दलमा वन्यप्राणी आश्रयणी के लिए प्रस्तावित इको-सेंसिटिव जोन से संबंधित जो प्रस्ताव राज्य सरकार को भेजा गया है उसके अनुसार प्रस्तावित स्थल प्रस्तावित इको-सेंसिटिव जोन की निकटतम सीमा से लगभग 2.5 कि०मी० दूर अवस्थित है। इस क्रम में अनुलग्नक- 1 पर दो प्रतियों में नक्शा संलग्न है।
4. पावर प्रोजेक्ट के लिए प्रस्तावित स्थल से 8 से 10 कि०मी० की दूरी पर दलमा-रूगाई गज-कोरीडोर एवं दलमा-चंडिल गज-कोरीडोर अवस्थित है। इस क्षेत्र के पास एक अन्य गज-कोरीडोर चांडिल-माथा कोरीडोर भी है, जो प्रस्तावित स्थल से 10 कि०मी० से अधिक दूरी पर अवस्थित है। इसके अतिरिक्त कोई अन्य हाथी कोरीडोर प्रस्तावित

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क्षेत्र के पास पूर्व चिन्हित नहीं है। उपरोक्त गज-कोरीडोर को दिखाते हुए नक्शा (अनुलग्नक-2) दो प्रतियों में संलग्न है।

5. वन प्रमण्डल पदाधिकारी, वन्यप्राणी प्रमण्डल, रांची के द्वारा अपने प्रतिवेदन में यह उल्लेख किया गया है कि दलमा वन्यप्राणी आश्रयणी की दक्षिणी सीमा पर स्वर्णरेखा नहर की गहरी खोदाई के कारण इस क्षेत्र में हाथियों का आवागमन अनियामित है। उन्होंने यह भी वर्णित किया है कि आश्रयणी से हाथियों का आवागमन रामगढ़, एन0एच0-33, डोभी, कपालन, तमोलिया होते हुए पुनः आश्रयणी की ओर हो रहा है। पूर्व में यह पलना जलाशय तक होता था, जो वर्तमान में नहर की खोदाई के कारण बाधित है। इस संबंध में नक्शे की समीक्षापरान्त यह पाया गया है कि यदि हाथियों का आवागमन पूर्ववतः आश्रयणी से पलना जलाशय तक होता भी है तब भी प्रस्तावित स्थल ऐसे किसी आवागमन मार्ग के बीच में नहीं आयेगा। पलना जलाशय की लोकेशन को दर्शाते हुए एक नक्शा भी इस पत्र के साथ संलग्न किया जा रहा है जिससे स्पष्ट होगा कि यह जलाशय प्रस्तावित स्थल से लगभग 17 कि0मी0(उत्तर पूर्व) की दूरी पर अवस्थित है। प्रस्तावित स्थल होकर हाथियों का आवागमन होने की या कोई पूर्व-स्थापित गज-कोरीडोर होने की कोई ठोस सूचना/प्रमाण उपलब्ध नहीं है।
6. झारखंड राज्य में गज-कोरीडोर को चिन्हित करने का कार्य एक स्वयंसेवी संस्था "वाइल्ड लाइफ ट्रस्ट ऑफ इण्डिया, नई दिल्ली" के द्वारा किया गया है। इस कार्य में झारखंड वन विभाग के द्वारा भी सहयोग किया गया था। उपरोक्त स्वयंसेवी संस्था द्वारा प्रकाशित 'Right of Passage- Elephant Corridors of India' नामक पुस्तक में झारखंड राज्य के लिए कुल 14 गज-कोरीडोर वर्णित है तथा इसी सूचना के आधार पर कंडिका चार में वर्णित तीन गज कोरीडोर को नक्शे पर दर्शाया गया है।
7. प्रस्तावित स्थल के आसपास कई अन्य उद्योग, यथा पावर ग्रिड कॉरपोरेशन ऑफ इण्डिया लि0, बी0के0 स्टील आई0ओ0सी0एल0, टी0सी0एस0, उषा मार्टिन, नीलांचल स्टील, आदि स्थापित हैं। यह अनुलग्नक-3 पर दो प्रतियों में उपलब्ध नक्शे से स्पष्ट है। इस क्षेत्र में कई उद्योग होने के कारण भी इसे दलमा वन्यप्राणी आश्रयणी के प्रस्तावित इको-सेंसिटिव जोन से बाहर रखा गया था।
8. वन प्रमण्डल पदाधिकारी, वन्यप्राणी प्रमण्डल, रांची ने प्रस्तावित स्थल दलमा आश्रयणी एवं elephant bearing area के समीप होने के कारण हाथियों के आवागमन पर पड़ने वाले प्रतिकूल प्रभाव की संभावना बताते हुए प्रस्तावित परियोजना हेतु अनापत्ति प्रमाण-पत्र निर्गत नहीं करने की अनुशंसा की है। परंतु वन संरक्षक, वन्य प्राणी अंचल, रांची ने वन प्रमण्डल पदाधिकारी द्वारा अपने प्रतिवेदन में उठाए गये विभिन्न विन्दुओं पर

समीक्षात्मक टिप्पणी अंकित करते हुए उनकी अनुशंसा से सहमति व्यक्त नहीं की है, जो उपरोक्त कंडिकाओं में उलेखित तथ्यों एवं संलग्नक मानचित्रों पर आधारित है। प्रधान मुख्य वन संरक्षक, जैव विविधता संरक्षण एवं मुख्य वन्यप्राणी प्रतिपालक, झारखण्ड, रांची, वन संरक्षक के उपर्युक्त मंतव्य से सहमत हैं।

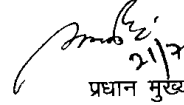
9. प्रधान मुख्य वन संरक्षक, जैव विविधता संरक्षण एवं मुख्य वन्यप्राणी प्रतिपालक, झारखण्ड, रांची द्वारा अग्रलिखित शर्त पर संबंधित परियोजना हेतु एनओसी निर्गत करने की अनुशंसा की गई है कि EIA के ToR की शर्त V के आलोक में प्रयोक्ता अभिकरण को इस आशय की वचनबद्धता देनी होगी कि प्रयोक्ता अभिकरण वन्य प्राणी विशेषज्ञ की मदद से Wildlife Mitigation and Conservation Plan उक्त क्षेत्र विशेष हेतु तैयार करा कर EIA में शामिल करेंगे और उक्त योजना का कार्यान्वयन वन विभाग के माध्यम से प्रयोक्ता अभिकरण की लागत पर किया जायेगा।

प्रधान मुख्य वन संरक्षक, जैव विविधता संरक्षण एवं मुख्य वन्यप्राणी प्रतिपालक, झारखण्ड, रांची के उपर्युक्त मंतव्य से अद्योहस्ताक्षरी सहमत हैं।

अनुरोध है कि विषयगत पर्यावरणीय स्वीकृति पर अग्रतर कार्यवाई करने की कृपा की जाय।

अनु०-यथोक्त।

विश्वासभाजन,



प्रधान मुख्य वन संरक्षक,
झारखण्ड, रांची।

21/7
19/7



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by :- An ISO 9001:2015 & ISO 45001:2018

Test Report

Baseline Ground Water Quality Report					
Discipline	Chemical	Group	Water	Sample Description	Ground Water
Report Release Date	16 th March, 2024			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	06/03/2024			Mode of sample collection	By YBAEEL Team
Sampling Protocol	IS : 17614 (Part-1): 2021			Sample Code	240307-GW-E02
Sampling Location	Hariharpur Village, Borewell			Sampling Source	Ground Water
Sample pkg. Condition	Sealed Pack in PP Bottle			Sample Quantity	3000 ml
Meteorological Cond. of Field	W.C.- Clear			RH % - 52	Temp. – 25°C
Sample receipt Date	07/03/2024	Analysis Started on	07/03/2024	Analysis completed on	16/03/2024

*****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	6.79 at 28.5°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	486.0	--	--
6.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23):1986, RA 2019 (Indicator Method)	mg/l	92.0	147-269	200-600
7.	Total Hardness (as CaCO ₃)	IS 3025 (P-21):2009, RA 2019 (EDTA Method)	mg/l	178.0	128-308	200-600
8.	Total dissolved solids	IS 3025 (P-16):2023 (Gravimetric Method)	mg/l	242.0	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	61.0	42-74	250-1000
11.	Fluoride (as F ⁻)	APHA 4500 F-C 24 th edition 2023 (Ion Selective Electrode Method)	mg/l	0.48	0.31-0.50	1.0-1.5
12.	Nitrate (as NO ₃ ⁻ N)	APHA 4500 NO ₃ ⁻ (B) 24 th edition 2023 (UV Screening Method)	mg/l	8.62	03-24	45-No relaxation
13.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24-Sec 1):2022 (Turbidity Method)	mg/l	28.6	06-28	200-400
14.	Calcium (as Ca)	IS 3025 (P-40): 1991, RA 2019 (EDTA Titrimetric Method)	mg/l	40.08	41-99	75-200
15.	Magnesium (as Mg)	APHA 3500 Mg B 24 th edition 2023	mg/l	18.90	--	30-100
16.	Sodium (as Na ⁺)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	20.0	--	--
17.	Potassium (as K ⁺)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	2.0	--	--

Prepared By – Shivani Kumari Singh
(Sr. Lab Analyst)

Verified & Issued by
Sanjeev Kumar Singh

Authorized Signatory
Chemical Section

Yugantar Bharati Analytical &
Environmental Engineering Laboratory

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

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ISO 45001:2018



ISO 9001:2015



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Test Report

Baseline Ground Water Quality Report						
Discipline	Chemical	Group	Water	Sample Description	Ground Water	
Report Release Date	16 th March, 2024			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	06/03/2024			Mode of sample collection	By YBAEEL Team	
Sampling Protocol	IS : 17614 (Part-1): 2021			Sample Code	240307-GW-E02	
Sampling Location	Hariharpur Village, Borewell			Sampling Source	Ground Water	
Sample pkg. Condition	Sealed Pack in PP Bottle			Sample Quantity	3000 ml	
Meteorological Cond. of Field	W.C.– Clear			RH % - 52	Temp. – 25°C	
Sample receipt Date	07/03/2024	Analysis Started on	07/03/2024	Analysis completed on	16/03/2024	

SI	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 24 th 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 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.03	<0.01	0.05-1.5
21.	Iron (as Fe)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.71	0.13-0.90	1.0-No relaxation
22.	Lead (as Pb)	APHA 3111 B 24 th 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 24 th edition 2023 (Continuous Hydride Generation Method)	mg/l	BDL (MDL 0.01)	--	0.01-No relaxation
24.	Zinc (as Zn)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.10	0.31-0.47	5-15
25.	Cadmium (as Cd)	APHA 3111 B 24 th 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 24 th 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 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.03	<0.01	0.05-No relaxation
28.	Nickel (as Ni)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--	0.02-No relaxation
29.	Cobalt (Co)	APHA 3111 B 24 th 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.
Remarks	All disputes are subjected to the Ranchi Jurisdiction.
	Sample complies with prescribed limits.

Prepared By – Shivani Kumari Singh
(Sr. Lab Analyst)

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory
Pakur

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

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ISO 45001:2018



ISO 9001:2015



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Test Report

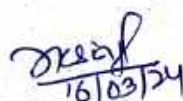
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Sampling Date	06/03/2024		Mode of sample collection	By YBAEEL Team	
Sampling Protocol	IS : 17614 (Part-1): 2021		Sample Code	240307-GW-E01	
Sampling Location	Srirampur Village, Borewell		Sampling Source	Ground Water	
Sample pkg. Condition	Sealed Pack in PP Bottle		Sample Quantity	3000 ml	
Meteorological Cond. of Field	W.C.- Clear		RH % - 51	Temp. - 23°C	
Sample receipt Date	07/03/2024	Analysis Started on	07/03/2024	Analysis completed on	16/03/2024

*****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	6.89 at 28.2°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	--	--
6.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23):1986, RA 2019 (Indicator Method)	mg/l	162.0	147-269	200-600
7.	Total Hardness (as CaCO ₃)	IS 3025 (P-21):2009, RA 2019 (EDTA Method)	mg/l	220.0	128-308	200-600
8.	Total dissolved solids	IS 3025 (P-16):2023 (Gravimetric Method)	mg/l	306.0	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	69.0	42-74	250-1000
11.	Fluoride (as F)	APHA 4500 F-C 24 th edition 2023 (Ion Selective Electrode Method)	mg/l	0.63	0.31-0.50	1.0-1.5
12.	Nitrate (as NO ₃ - N)	APHA 4500 NO ₃ - (B) 24 th edition 2023 (UV Screening Method)	mg/l	2.68	03-24	45-No relaxation
13.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24-Sec 1):2022 (Turbidity Method)	mg/l	26.7	06-28	200-400
14.	Calcium (as Ca)	IS 3025 (P-40): 1991, RA 2019 (EDTA Titrimetric Method)	mg/l	46.10	41-99	75-200
15.	Magnesium (as Mg)	APHA 3500 Mg B 24 th edition 2023	mg/l	25.45	--	30-100
16.	Sodium (as Na ⁺)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	23.0	--	--
17.	Potassium (as K ⁺)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	3.0	--	--

Prepared By - Shivani Kumari Singh
(Sr. Lab Analyst)

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


16/03/24
Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory



ISO 9001:2015
ISO 45001:2018

Enquiry Office -

Jamshedpur

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Pakur

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YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by :- ISO 9001:2015 & ISO 45001:2018

Test Report

Baseline Ground Water Quality Report					
Discipline	Chemical	Group	Water	Sample Description	Ground Water
Report Release Date	16 th March, 2024			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	06/03/2024			Mode of sample collection	By YBAEEL Team
Sampling Protocol	IS : 17614 (Part-1): 2021			Sample Code	240307-GW-E01
Sampling Location	Srirampur Village, Borewell			Sampling Source	Ground Water
Sample pkg. Condition	Sealed Pack in PP Bottle			Sample Quantity	3000 ml
Meteorological Cond. of Field	W.C.– Clear			RH % - 51	Temp. – 23°C
Sample receipt Date	07/03/2024	Analysis Started on	07/03/2024	Analysis completed on	16/03/2024

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 24 th 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 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.02	<0.01	0.05-1.5
21.	Iron (as Fe)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.77	0.13-0.90	1.0-No relaxation
22.	Lead (as Pb)	APHA 3111 B 24 th 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 24 th edition 2023 (Continuous Hydride Generation Method)	mg/l	BDL (MDL 0.01)	--	0.01-No relaxation
24.	Zinc (as Zn)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.11	0.31-0.47	5-15
25.	Cadmium (as Cd)	APHA 3111 B 24 th 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 24 th 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 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.04	<0.01	0.05-No relaxation
28.	Nickel (as Ni)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--	0.02-No relaxation
29.	Cobalt (Co)	APHA 3111 B 24 th 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 – Shivani Kumari Singh
(Sr. Lab Analyst)

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

Verified & Issued by
Sanjeev Kumar Singh

(Technical Manager)

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory



ISO 9001:2015
ISO 45001:2018

Enquiry Office -

Jamshedpur

Dhanbad

Hazaribag

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Piezometer At Plant premises





YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by :-

ISO 9001:2015 & ISO 45001:2018



TC-12989

Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	0	1	3	6	F	
Discipline	Chemical	Group	Water			Sample Description				Surface Water											
Report Release Date		16 th March, 2024					Report ID				YBAEEL-240229-152312-SW01										
W. Order / JSPCB App. No.		3030006964					Work Order Date				03.02.2024										
Type of Industry(If any)		Thermal Power Plant					Job code/ Ref. no.				YBAEEL/WA/L/C/Mar.-24/04										
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seralkela-Kharsawan, Jharkhand.																			
Sampling Date		06/03/2024					Mode of sample collection				By YBAEEL Team										
Sampling Protocol		IS : 17514 (Part-1): 2021					Sample Code				240307-SW-E01										
Sampling Location		Srirampur Village, Pond					Sampling Source				Surface Water										
Sample pkg. Condition		Sealed Pack in PP Bottle					Sample Quantity				3000 ml										
Meteorological Cond. of Field		W.C.- Clear					RH % - 51				Temp. - 23°C										
Sample receipt Date		07/03/2024		Analysis Started on			07/03/2024			Analysis completed on			16/03/2024								

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

Sl	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2022 (Electrometric Method)	pH	6.63 at 28.6°C	6.5-8.5
2.	Odour	IS 3025 (P-05):2018	-	Agree.	--
3.	Conductivity	IS 3025 (P-14):2013, RA 2019	µs/cm	738.0	--
4.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23):1986, RA 2019 (Indicator Method)	mg/l	200.0	--
5.	Total Hardness (as CaCO ₃)	IS 3025 (P-21):2009, RA 2019 (EDTA Method)	mg/l	282.0	--
6.	Total dissolved solids	IS 3025 (P-16):2023 (Gravimetric Method)	mg/l	405.0	--
7.	Total suspended solids	IS 3025 (P-17):2022 (Gravimetric Method)	mg/l	14.0	--
8.	Oxygen (dissolved) (DW)	IS 3025 (P-38):1989, RA 2019 (Titrimetric Method)	mg/l	5.8	4
9.	Chloride (as Cl)	IS 3025 (P-32):1988, RA 2019 (Argentometric Method)	mg/l	20.0	--
10.	Fluoride (as F)	APHA 4500 F-C 24 th edition 2023 (Ion Selective Electrode Method)	mg/l	0.90	--
11.	Nitrate (as NO ₃ -N)	APHA 4500 NO ₃ - (B) 24 th edition 2023 (UV Screening Method)	mg/l	5.26	--
12.	BOD	IS 3025 (P-44):1993, RA 2019 (Oxygen Depletion Method)	mg/l	2.4	3
13.	COD	IS 3025 (P-58):2006, RA 2022	mg/l	92.0	--
14.	Oil and grease	IS 3025 (P-39):2021 (Partition Gravimetric Method)	mg/l	5.6	--
15.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24-Sec 1):2022 (Turbidity Method)	mg/l	101.60	--
16.	Calcium (as Ca)	IS 3025 (P-40):1991, RA 2019 (EDTA Titrimetric Method)	mg/l	40.08	--
17.	Magnesium (as Mg)	APHA 3500 Mg B 24 th edition 2023	mg/l	44.20	--
18.	Sodium (as Na ⁺)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	81.0	--
19.	Potassium (as K ⁺)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	9.0	--
20.	Ammoniacal Nitrogen	IS 3025 (P-34):1988, RA 2019 (Titrimetric Method)	mg/l	0.9	--

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 15613:2006 (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.

Sample Drawn By - Mukesh Singh
Tested By - Shivani Kumari Singh (Sr. Lab Analyst)

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

[Signature]
16/03/24
Verified & issued by
Sanjeev Kumar Singh
(Technical Manager)
Authorized Signatory
Chemical Section
Yugantar Bharati Analytical & Environmental Engineering Laboratory

Enquiry Office -

Jamshedpur

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Main Office Cum Laboratory :- Plot No. 551, Khata No 52, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
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YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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Test Report

Discipline	Chemical	Group	Water	Sample Description	Surface Water
Report Release Date	16 th March, 2024			Report ID	YBAEEL-240229-152312-SW01
W. Order / JSPCB App. No.	3030006964			Work Order Date	03.02.2024
Type of Industry(if any)	Thermal Power Plant			Job code/ Ref. no.	YBAEEL/WA/L/C/Mar.-24/04
Report Issue to	M/s Adhunik Power & Natural Resources Ltd. VIII.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.				
Sampling Date	06/03/2024		Mode of sample collection	By YBAEEL Team	
Sampling Protocol	IS : 17814 (Part-1): 2021		Sample Code	240307-SW-E01	
Sampling Location	Srirampur Village, Pond		Sampling Source	Surface Water	
Sample pkg. Condition	Sealed Pack in PP Bottle		Sample Quantity	3000 ml	
Meteorological Cond. of Field	W.C.- Clear		RH % - 51	Temp. - 23°C	
Sample receipt Date	07/03/2024	Analysis Started on	07/03/2024	Analysis completed on	16/03/2024

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

Sl	Parameter	Test Method	Units	Results	Limits
1	Cyanide(as CN ⁻)	IS 3025 (P-27/Sec1):2021 (Titrimetric Method)	mg/l	BDL (MDL 1.0)	--
2	Phenols (CaH ₂ OH)	IS 3025 (P-43/Sec1):2022 (4-Aminodipyridine Method)	mg/l	0.062	--

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 196:1996 (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 Drawn By - Mukesh Singh
Tested By - Shivani Kumari Singh (Sr. Lab Analyst)

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

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by :- ISO 9001:2015 & ISO 45001:2018



TC-12989

Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	0	1	4	2	F
Discipline	Chemical	Group	Residue in Water					Sample Description					Surface Water							
Report Release Date		16 th March, 2024						Report ID					YBAEEL-240229-152312-SW01							
W. Order / JSPCB App. No.		3030006964						Work Order Date					03.02.2024							
Type of Industry (if any)		Thermal Power Plant						Job code/ Ref. no.					YBAEEL/WA/L/R/Mar.-24/02							
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. VIII.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																		
Sampling Date		06/03/2024						Mode of sample collection					By YBAEEL Team							
Sampling Protocol		IS : 17614 (Part-1): 2021						Sample Code					240307-SW-E01							
Sampling Location		Srirampur Village, Pond						Sampling Source					Surface Water							
Sample pkg. Condition		Sealed Pack in PP Bottle						Sample Quantity					1000 ml							
Meteorological Cond. of Field		W.C.- Clear						RH % - 51					Temp. - 23°C							
Sample receipt Date		07/03/2024		Analysis Started on			07/03/2024			Analysis completed on			16/03/2024							

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

Sl	Parameter	Test Method	Units	Results	Limits
1.	Arsenic (as As)	APHA 3114 C 24 th edition 2023 (Continuous Hydride Generation Method)	mg/l	BDL (MDL 0.003)	--
2.	Copper (as Cu)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.01)	--
3.	Iron (as Fe)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.51	--
4.	Lead (as Pb)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--
5.	Selenium (as Se)	APHA 3114 C 24 th edition 2023 (Continuous Hydride Generation Method)	mg/l	BDL (MDL 0.01)	--
6.	Zinc (as Zn)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.1)	--
7.	Cadmium (as Cd)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--
8.	Mercury (as Hg)	APHA 3112 B 24 th edition 2023 (Cold Vapour AAS Method)	mg/l	BDL (MDL 0.003)	--
9.	Chromium (as Cr)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.41	--
10.	Nickel (as Ni)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--
11.	Cobalt (Co)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 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 85 ± 5% in all testing areas as per IS 196/1556 (C).
Specific contractual notes	All values are expressed in an 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 Drawn By - Mukesh Singh
Tested By - Shilvani Kumari Singh (Sr. Lab Analyst)

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

Verified & issued by
Sanjeev Kumar Singh
(Technical Manager)

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office -

Jamshedpur

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ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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Test Report

Discipline	Chemical	Group	Residue in Water	Sample Description	Surface Water
Report Release Date	16 th March, 2024			Report ID	YBAEEL-240229-152312-SW01
W. Order / JSPCB App. No.	3030006964			Work Order Date	03.02.2024
Type of Industry (if any)	Thermal Power Plant			Job code/ Ref. no.	YBAEEL/WA/LR/Mar.-24/02
Report Issue to	M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.				
Sampling Date	06/03/2024		Mode of sample collection	By YBAEEL Team	
Sampling Protocol	IS : 17614 (Part-1): 2021		Sample Code	240307-SW-E01	
Sampling Location	Srirampur Village, Pond		Sampling Source	Surface Water	
Sample pkg. Condition	Sealed Pack in PP Bottle		Sample Quantity	1000 ml	
Meteorological Cond. of Field	W.C.- Clear		RH % - 51	Temp. - 23°C	
Sample receipt Date	07/03/2024	Analysis Started on	07/03/2024	Analysis completed on	16/03/2024

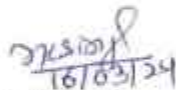
*****Test Results*****

Sl	Parameter	Test Method	Units	Results	Limits
1.	Aluminium (as Al)	IS 3025 (P-55):2003, RA 2019 (Eriochrome Cyanine R 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 $27 \pm 2^\circ\text{C}$ and Relative Humidity $65 \pm 5\%$ in all testing areas as per IS 190:1996 (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 Drawn By - Mukesh Singh
Tested By - Shivani Kumari Singh (Sr. Lab Analyst)

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


16/03/24
Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)
Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office - Jamshedpur | Dhanbad | Hazaribag | Pakur

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ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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TC-12989

Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	1	4	9	F	
Discipline	Biological	Group	Water			Sample Description				Surface Water										
Report Release Date		16 th March, 2024					Report ID				YBAEEL-240229-152312-SW01									
W. Order / JSPCB App. No.		3030006964					Work Order Date				03.02.2024									
Type of Industry(if any)		Thermal Power Plant					Job code/ Ref. no.				YBAEEL/WA/L/M/Mar.-24/02									
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																		
Sampling Date		06/03/2024					Mode of sample collection				By YBAEEL Team									
Sampling Protocol		IS : 1622:1982, R - 2019					Sample Code				240307-SW-E01									
Sampling Location		Srirampur Village, Pond					Sampling Source				Surface Water									
Sample pkg. Condition		Sealed Pack in PP Bottle					Sample Quantity				250 ml									
Meteorological Cond. of Field		W.C.- Clear					RH % - 51				Temp. - 23°C									
Sample receipt Date		07/03/2024		Analysis Started on			11/03/2024			Analysis completed on					14/03/2024					

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

Sl	Parameter	Test Method	Units	Results	Limits
1.	Total coliform	APHA 9221B 24 th Edition 2023 (Multiple Tube Fermentation Technique)	MPN/100 ml	120	-
2.	Fecal coliform	APHA 9221E 24 th Edition 2023 (Thermotolerant (Fecal) Coliform Procedure)	MPN/100 ml	94	2500
3.	E coli	APHA 9221-F 24 th Edition 2023 (Escherichia Coli Procedure using Fluorogenic Substrate)	MPN/100 ml	94	-

Limit is specified as	G.S.R. 742 (E) 25 th September, 2000.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit. <1.0 / < 1.1 MPN/100 ml denotes that the presence probability of bacteria is absent in the tested sample
Env. Condition of Lab	Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1968 (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	Sample complies with prescribed limit.

Sample Drawn By - Mukesh Singh
Tested By - Madhuri Sinha (Lab Analyst)

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

Verified & Issued by
(Mukesh Kumar)

Authorized Signatory
Authorized Signatory
Microbiological Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory



ISO 9001:2015
ISO 45001:2018

Enquiry Office - Jamshedpur | Dhanbad | Hazaribag | Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by :- ISO 9001:2015 & ISO 45001:2018



TC-12989

Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	0	1	3	7	F
Discipline	Chemical	Group	Water			Sample Description				Surface Water										
Report Release Date		16 th March, 2024						Report ID				YBAEEL-240229-152312-SW02								
W. Order / JSPCB App. No.		3030006964						Work Order Date				03.02.2024								
Type of Industry (If any)		Thermal Power Plant						Job code/ Ref. no.				YBAEEL/WA/L/C/Mar.-24/04								
Report issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																		
Sampling Date		06/03/2024						Mode of sample collection				By YBAEEL Team								
Sampling Protocol		IS : 17614 (Part-1): 2021						Sample Code				240307-SW-E02								
Sampling Location		Padampur Village, Pond						Sampling Source				Surface Water								
Sample pkg. Condition		Sealed Pack in PP Bottle						Sample Quantity				3000 ml								
Meteorological Cond. of Field		W.C.— Clear						RH % - 51				Temp. – 25°C								
Sample receipt Date		07/03/2024		Analysis Started on				07/03/2024				Analysis completed on				16/03/2024				

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

Sl	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2022 (Electrometric Method)	pH	7.36 at 28.6°C	6.5-8.5
2.	Odour	IS 3025 (P-05):2018	-	Agree.	-
3.	Conductivity	IS 3025 (P-14):2013, RA 2019	µs/cm	623.0	-
4.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23):1986, RA 2019 (Indicator Method)	mg/l	164.0	-
5.	Total Hardness (as CaCO ₃)	IS 3025 (P-21):2009, RA 2019 (EDTA Method)	mg/l	192.0	-
6.	Total dissolved solids	IS 3025 (P-16):2023 (Gravimetric Method)	mg/l	308.0	-
7.	Total suspended solids	IS 3025 (P-17):2022 (Gravimetric Method)	mg/l	22.0	-
8.	Oxygen (dissolved)	IS 3025 (P-38):1989, RA 2019 (Titrimetric Method)	mg/l	5.4	4
9.	Chloride (as Cl)	IS 3025 (P-32):1986, RA 2019 (Argentometric Method)	mg/l	32.0	-
10.	Fluoride (as F ⁻)	APHA 4500 F-C 24 th edition 2023 (Ion Selective Electrode Method)	mg/l	0.80	-
11.	Nitrate (as NO ₃ -N)	APHA 4500 NO ₃ -B 24 th edition 2023 (UV Screening Method)	mg/l	4.82	-
12.	BOD	IS 3025 (P-44):1993, RA 2019 (Oxygen Depletion Method)	mg/l	2.8	3
13.	COD	IS 3025 (P-58):2006, RA 2022	mg/l	152.0	-
14.	Oil and grease	IS 3025 (P-39):2021 (Partition Gravimetric Method)	mg/l	6.80	-
15.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24-Sec 1):2022 (Turbidity Method)	mg/l	43.40	-
16.	Calcium (as Ca)	IS 3025 (P-40):1991, RA 2019 (EDTA Titrimetric Method)	mg/l	9.6	-
17.	Magnesium (as Mg)	APHA 3500 Mg B 24 th edition 2023	mg/l	40.8	-
18.	Sodium (as Na ⁺)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	32.0	-
19.	Potassium (as K ⁺)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	5.0	-
20.	Ammoniacal Nitrogen	IS 3025 (P-34):1998, RA 2019 (Titrimetric Method)	mg/l	0.8	-

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 156:1996 (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 involved amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Sample complies with prescribed limits.

Sample Drawn By - Mukesh Singh
Tested By - Shivani Kumari Singh (Sr. Lab Analyst)

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

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by :-

ISO 9001:2015 & ISO 45001:2018

Test Report

Discipline	Chemical	Group	Water	Sample Description	Surface Water
Report Release Date	16 th March, 2024			Report ID	YBAEEL-240229-152312-SW02
W. Order / JSPCB App. No.	3030006964			Work Order Date	03.02.2024
Type of Industry(if any)	Thermal Power Plant			Job code/ Ref. no.	YBAEEL/WA/L/C/Mar.-24/04
Report issue to	M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.				
Sampling Date	06/03/2024		Mode of sample collection	By YBAEEL Team	
Sampling Protocol	IS : 17814 (Part-1): 2021		Sample Code	240307-SW-E02	
Sampling Location	Padampur Village, Pond		Sampling Source	Surface Water	
Sample pkg. Condition	Sealed Pack in PP Bottle		Sample Quantity	3000 ml	
Meteorological Cond. of Field	W.C.- Clear		RH % - 51	Temp. - 25°C	
Sample receipt Date	07/03/2024	Analysis Started on	07/03/2024	Analysis completed on	16/03/2024

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

Sl	Parameter	Test Method	Units	Results	Limits
1.	Cyanide(as CN ⁻)	IS 3025 (P-27/Sec1):2021 (Titrimetric Method)	mg/l	BDL (MDL 1.0)	--
2.	Phenols (C ₆ H ₅ OH)	IS 3025 (P-43/Sec1):2022 (4-Aminoantipyrine Method)	mg/l	0.210	--

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 55 ± 5% in all testing areas as per IS 156:1995 (C)
Specific contractual notes	All values are expressed in ps-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 Drawn By - Mukesh Singh
Tested By - Shivan Kumari Singh (Sr. Lab Analyst)

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

Verified & Issued by
Sanjeav Kumar Singh
(Technical Manager)

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory



Enquiry Office - Jamshedpur | Dhanbad | Hazaribag | Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
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YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by:- ISO 9001:2015 & ISO 45001:2018



TC-12989

Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	0	1	4	3	F
Discipline	Chemical	Group	Residue in Water					Sample Description					Surface Water							
Report Release Date		16 th March, 2024					Report ID					YBAEEL-240229-152312-SW02								
W. Order / JSPCB App. No.		3030006984					Work Order Date					03.02.2024								
Type of Industry(If any)		Thermal Power Plant					Job code/ Ref. no.					YBAEEL/WA/LR/Mar.-24/02								
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. VIII.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																		
Sampling Date		05/03/2024					Mode of sample collection					By YBAEEL Team								
Sampling Protocol		IS : 17814 (Part-1): 2021					Sample Code					240307-SW-E02								
Sampling Location		Padampur Village, Pond					Sampling Source					Surface Water								
Sample pkg. Condition		Sealed Pack in PP Bottle					Sample Quantity					1000 ml								
Meteorological Cond. of Field		W.C.- Clear					RH % - 51					Temp. - 25°C								
Sample receipt Date		07/03/2024		Analysis Started on			07/03/2024			Analysis completed on			16/03/2024							

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

Sl	Parameter	Test Method	Units	Results	Limits
1	Arsenic (as As)	APHA 3114 C 24 th edition 2023 (Continuous Hydride Generation Method)	mg/l	BDL (MDL 0.003)	--
2	Copper (as Cu)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.01)	--
3	Iron (as Fe)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.07	--
4	Lead (as Pb)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--
5	Selenium (as Se)	APHA 3114 C 24 th edition 2023 (Continuous Hydride Generation Method)	mg/l	BDL (MDL 0.01)	--
6	Zinc (as Zn)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.1)	--
7	Cadmium (as Cd)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--
8	Mercury (as Hg)	APHA 3112 B 24 th edition 2023 (Cold Vapour AAS Method)	mg/l	BDL (MDL 0.003)	--
9	Chromium (as Cr)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.39	--
10	Nickel (as Ni)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--
11	Cobalt (Co)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 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 190:1996 (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	*****End of Report*****

Sample Drawn By - Mukesh Singh
Tested By - Shivani Kumari Singh (Sr. Lab Analyst)

Verified & Issued by
Sanjeev Kumar Singh

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



ISO 9001:2015
ISO 45001:2018



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by:- ISO 9001:2015 & ISO 45001:2018

Test Report

Discipline	Chemical	Group	Residue in Water	Sample Description	Surface Water
Report Release Date	16 th March, 2024			Report ID	YBAEEL-240229-152312-SW02
W. Order / JSPCB App. No.	3038006964			Work Order Date	03.02.2024
Type of Industry (if any)	Thermal Power Plant			Job code/ Ref. no.	YBAEEL/WA/L/R/Mar.-24/02
Report Issue to	M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandara-832402, Seraikela-Kharsawan, Jharkhand.				
Sampling Date	06/03/2024		Mode of sample collection	By YBAEEL Team	
Sampling Protocol	IS : 17614 (Part-1): 2021		Sample Code	240307-SW-E02	
Sampling Location	Padampur Village, Pond		Sampling Source	Surface Water	
Sample pkg. Condition	Sealed Pack in PP Bottle		Sample Quantity	1000 ml	
Meteorological Cond. of Field	W.C.- Clear		RH % - 51	Temp. - 25°C	
Sample receipt Date	07/03/2024	Analysis Started on	07/03/2024	Analysis completed on	16/03/2024

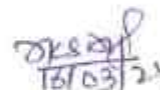
*****Test Results*****

Sl	Parameter	Test Method	Units	Results	Limits
1.	Aluminium (as Al)	IS 3025 (P-55):2003, RA 2019 (Eriochromate Cyanine R 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 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 195:1986 (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 Drawn By - Mukesh Singh
Tested By - Shivani Kumari Singh (Sr. Lab Analyst)

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


16/03/24
Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)
Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory





YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by :- ISO 9001:2015 & ISO 45001:2018



TC-12989

Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	1	5	0	F	
Discipline	Biological	Group	Water			Sample Description				Surface Water										
Report Release Date		16 th March, 2024					Report ID				YBAEEL-240229-152312-SW02									
W. Order / JSPCB App. No.		3030006964					Work Order Date				03.02.2024									
Type of Industry(if any)		Thermal Power Plant					Job code/ Ref. no.				YBAEEL/WA/L/M/Mar.-24/02									
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																		
Sampling Date		06/03/2024					Mode of sample collection				By YBAEEL Team									
Sampling Protocol		IS : 1822:1982, R - 2019					Sample Code				240307-SW-E02									
Sampling Location		Padampur Village, Pond					Sampling Source				Surface Water									
Sample pkg. Condition		Sealed Pack in PP Bottle					Sample Quantity				250 ml									
Meteorological Cond. of Field		W.C.- Clear					RH % - 51				Temp. - 25°C									
Sample receipt Date		07/03/2024			Analysis Started on			11/03/2024			Analysis completed on			14/03/2024						

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

Sl	Parameter	Test Method	Units	Results	Limits
1.	Total coliform	APHA 9221B 24 th Edition 2023 (Multiple Tube Fermentation Technique)	MPN/100 ml	260	-
2.	Fecal coliform	APHA 9221E 24 th Edition 2023 (Thermotolerant (Fecal) Coliform Procedure)	MPN/100 ml	260	2500
3.	E coli	APHA 9221-F 24 th Edition 2023 (Escherichia Coli Procedure using Fluorogenic Substrate)	MPN/100 ml	260	-

Limit is specified as	G.S.R. 742 (E) 29 th September, 2000.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit, <1.1 / < 1.1 MPN/100 ml denotes that the presence probability of bacteria is absent in the tested sample.
Env. Condition of Lab	Laboratory is maintaining Temperature 22 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 198:1966 (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	Sample complies with prescribed limit.

Sample Drawn By - Mukesh Singh
Tested By - Madhuri Sinha (Lab Analyst)

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

Verified & Issued by
(Mukesh Kumar)

Authorized Signatory
Authorized Signatory
Microbiology Section
Yugantar Analytical &
Environmental Engineering Laboratory



ISO 9001:2015
ISO 45001:2018



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by :-

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TC-12989

Test Report

URL(Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	1	3	3	F
Discipline	Chemical	Group	Atmospheric Pollution					Sample Description					Stationary Source Emission						
Report Release Date		16 th March, 2024						Report ID					YBAEEL-240229-152312- S2						
W. Order / JSPCB App. No.		3030006964						Work Order Date					03.02.2024						
Type of Industry(If any)		Thermal Power Plant						Job code/ Ref. no.					YBAEEL/WA/L/A/Mar.-24/01						
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																	
Sampling Period		05/03/2024						Mode of sample collection					By YBAEEL Team						
Sampling Protocol		IS: 11255 & CPCB Guideline (Lats/80/2013-14)																	
Meteorological Cond. of Field		W.C.– Clear						RH % - 59					Temp. – 29°C						
Sample receipt Date		07/03/2024		Analysis Started on			07/03/2024			Analysis completed on					16/03/2024				

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)	160 Ton/Hr.
Stack Description (Shape & Material)	Circular / RCC	Total production Capacity	263 MW
Sampling port	Available	Height of Stack from ground level	275 mtr.
Stack Identification	Unit - II	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)	31.0		
Volumetric Flow Rate (Nm ³ /hr)	1177336.0		

Emission Rate based on Calculation of Volumetric Flow rate

1.	Particulate Matter (PM)	Kg/hr	264.5
2.	Sulphure Dioxide (SO ₂)	Kg/hr	1448.8
3.	Oxide of Nitrogen (as NO _x)	Kg/hr	786.3

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

Sl	Parameters	Test Method	Units	Results	Limits
1.	Particulate Matter (PM)	IS 11255 (Part 1)2009, RA 2019	mg/Nm ³	39.7	50
2.	Sulphure Dioxide (SO ₂)	IS 11255 (Part 2)2009, RA 2019	mg/Nm ³	1230.6	600
3.	Oxide of Nitrogen (as NO _x)	IS 11255 (Part 7)2005, RA 2022	mg/Nm ³	390.8	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 limits, except SO ₂ .

Sample Drawn By - Mukesh Singh
Tested By - Akash Khalkho (Lab Analyst)

16/03/24

Verified & Issued by
Sanjeev Kumar Singh

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

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

Enquiry Office -

Jamshedpur

Dhanbad

Hazaribag

Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
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YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by :-

ISO 9001:2015 & ISO 45001:2018

Test Report

Discipline	Chemical	Group	Atmospheric Pollution	Sample Description	Stationary Source Emission
Report Release Date	16 th March, 2024			Report ID	YBAEEL-240229-152312- S2
W. Order / JSPCB App. No.	3030006964			Work Order Date	03.02.2024
Type of Industry(If any)	Thermal Power Plant			Job code/ Ref. no.	YBAEEL/WA/L/A/Mar.-24/01
Report Issue to	M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.				
Sampling Period	05/03/2024		Mode of sample collection		By YBAEEL Team
Sampling Protocol	IS: 11255 & CPCB Guideline (Lats/80/2013-14)				
Meteorological Cond. of Field	W.C.- Clear		RH % - 59		Temp. – 29°C
Sample receipt Date	07/03/2024	Analysis Started on	07/03/2024	Analysis completed on	16/03/2024

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)	160 Ton/Hr.
Stack Description (Shape & Material)	Circular / RCC	Total production Capacity	263 MW
Sampling port	Available	Height of Stack from ground level	275 mtr.
Stack Identification	Unit - II	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)	31.0		
Volumetric Flow Rate (Nm ³ /hr)	1177336.0		

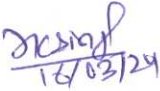
*****Test Results*****

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 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.

Sample Drawn By - Mukesh Singh
Tested By - Akash Khalkho (Lab Analyst)

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


16/03/24

Verified & Issued by
Sanjeev Kumar Singh

Auth. Technical Manager
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



ISO 9001:2015
ISO 45001:2018

ADHUNIK POWER & NATURAL RESOURCES LTD.

FLY ASH Stock & Generation Report (2023-24)

Month	Current Year Ash Utilization (2023-24)					Fly Ash Utilization Mode					Filling in Low Lying Area	Total Ash Utilization
	Month Coal Consumption	TA Generation	Ash %	Total Ash Utilization	Utilization %	Fly ash based Products	Cement Manufacturing	Ready mix concrete	Construct ion of road and fly over embankment	export of ash to other countries		
Apr-23	1,24,286.34	52,557.94	42.29%	44,268.86	84.23%	189.00	37,168.00	6,868.00	-	43.86	-	44,268.86
May-23	1,29,116.83	52,569.24	40.71%	44,767.00	85.16%	1,180.00	36,464.00	7,123.00	-	-	-	44,767.00
Jun-23	1,68,814.57	68,155.20	40.37%	58,079.00	85.22%	3,104.00	47,415.00	7,560.00	-	-	-	58,079.00
Jul-23	2,60,174.69	1,06,258.40	40.84%	74,880.01	70.47%	8,255.00	59,174.71	7,450.30	-	-	-	74,880.01
Aug-23	2,76,754.49	1,09,489.66	39.56%	72,985.81	66.66%	8,127.00	56,379.48	8,243.50	235.83	-	-	72,985.81
Sep-23	2,82,140.67	1,20,023.49	42.54%	76,496.72	63.73%	12,525.00	57,545.45	6,426.27	-	-	-	76,496.72
Oct-23	2,87,624.41	1,30,715.14	45.45%	87,651.29	67.06%	12,634.00	67,841.75	7,175.54	-	-	-	87,651.29
Nov-23	2,09,834.33	89,996.38	42.89%	74,750.50	83.06%	9,687.00	58,892.35	5,265.51	-	-	905.64	74,750.50
Dec-23	2,25,402.00	99,340.00	44.07%	88,920.15	89.51%	7,544.00	68,284.14	7,232.01	-	-	5,860.00	88,920.15
Jan-24	2,35,605.18	1,00,713.11	42.75%	89,378.79	88.75%	10,220.00	64,802.54	7,455.25	-	-	6,901.00	89,378.79
Feb-24	2,46,020.14	98,960.86	40.22%	98,940.27	99.98%	12,789.00	75,520.31	10,630.96	-	-	-	98,940.27
Mar-24	2,58,248.00	1,04,951.99	40.64%	1,04,948.55	100.00%	18,940.00	76,243.42	9,765.13	-	-	-	1,04,948.55
Total	27,04,021.64	11,33,731.39	41.93%	9,16,066.95	80.80%	1,05,194.00	7,05,731.15	91,195.47	235.83	43.86	13,666.64	9,16,066.95

Karfa



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by :- ISO 9001:2015 & ISO 45001:2018

Test Report

Discipline	Chemical	Group	Pollution & Environment	Sample Description	ASH
Report Release Date	16 th March, 2024			Report ID	YBAEEL-240229-152312- 01
W. Order / JSPCB App. No.	3030006964			Work Order Date	03.02.2024
Type of Industry (If any)	Thermal Power Plant			Job code/ Ref. no.	YBAEEL/WA/L/C/Mar-24/06
Report Issue to	M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand				
Sampling Date	06/03/2024			Mode of sample collection	By YBAEEL Team
Sampling Protocol	YBAEEL/Soil/SOP/01/00			Sample Code	240307-AS-E01
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 % - 60		Temp. - 33°C
Sample receipt Date	07/03/2024	Analysis Started on	07/03/2024	Analysis completed on	16/03/2024

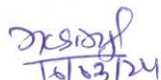
*****Test Results*****

Sl	Parameter	Test Method	Units	Results
1.	Iron (as Fe)	USEPA 3050 B :1996/APHA 3111 B	ppm	33.4
2.	Zinc (as Zn)	USEPA 3050 B :1996/APHA 3111 B	ppm	0.12
3.	Copper (as Cu)	USEPA 3050 B :1996/APHA 3111 B	ppm	0.01
4.	Lead (as Pb)	USEPA 3050 B :1996/APHA 3111 B	ppm	BDL (MDL 0.02)
5.	Nickel (as Ni)	USEPA 3050 B :1996/APHA 3111 B	ppm	0.07
6.	Cadmium (as Cd)	USEPA 3050 B :1996/APHA 3111 B	ppm	0.1
7.	Chromium (as Cr)	USEPA 3050 B :1996/APHA 3111 B	ppm	0.43
8.	Arsenic (as As)	USEPA 3050 B :1996/APHA 3112 B	ppm	0.08
9.	Mercury (Hg)	USEPA 3050 B :1996/APHA 3111 B	ppm	0.04
10.	Selenium (as Se)	USEPA 3050 B :1996/APHA 3111 B	ppm	BDL (MDL 0.01)

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).
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Remarks	-----

Sample Drawn By - Mukesh Singh
Tested By - Shivani Kumari Singh (Sr. Lab Analyst)

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


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



Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by :- ISO 9001:2015 & ISO 45001:2018



TC-12989

Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	0	0	1	4	6	F
Discipline	Chemical	Group	Pollution & Environment					Sample Description							Waste Water / Effluent Water						
Report Release Date		16 th March, 2024						Report ID							YBAEEL-240229-152312-WW01						
W. Order / JSPCB App. No.		3030006964						Work Order Date							03.02.2024						
Type of Industry(if any)		Thermal Power Plant						Job code/ Ref. no.							YBAEEL/WA/L/W/Mar.-24/01						
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																			
Sampling Date		06/03/2024						Mode of sample collection							By YBAEEL Team						
Sampling Protocol		IS : 17614 (Part-1): 2021						Sample Code							240307-WW-E01						
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 % - 49							Temp.–26°C						
Sample receipt Date		07/03/2024		Analysis Started on				07/03/2024				Analysis completed on				16/03/2024					

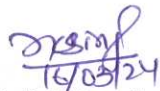
*****Test Results *****

Sl	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2022 (Electrometric Method)	pH	7.15 at 26.0°C	6.5 – 8.5
2.	Temperature	IS 3025 (P-09):2023	°C	26.0	--
3.	Total Suspended Solids	IS 3025 (P-17):2022 (Gravimetric Method)	mg/l	84.0	100
4.	Oil & Grease	IS 3025 (P-39):2021 (Partition Gravimetric Method)	mg/l	BDL (MDL 4.0)	20
5.	Arsenic (as As)	APHA 3114 C 24 th edition 2023 (Continuous Hydride Generation Method)	mg/l	BDL (MDL 0.003)	--
6.	Lead (as Pb)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--
7.	Mercury (as Hg)	APHA 3112 B 24 th edition 2023 (Cold Vapour AAS Method)	mg/l	BDL (MDL 0.003)	--
8.	Chromium (as Cr)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.4	--

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).
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Remarks	Sample complies with prescribed limit.

Sample Drawn By - Mukesh Singh
Tested By - Shivani Kumari Singh (Sr. Lab Analyst)

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


Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)
Authorized Signatory
Chemical Section
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Environmental Engineering Laboratory



ISO 9001:2015
ISO 45001:2018

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

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CSR ANNUAL ACTIVITIES REPORT

FY 2023-2024



ADHUNIK POWER AND NATURAL RESOURCES LIMITED

Padampur, Kandra, Saraikela-Kharsawan

Introduction

Adhunik Power & Natural Resources Limited (APNRL), Padampur has always been at forefront of CSR. The provisions of the Companies Act, 2013 have made it imperative to institutionalize the CSR activities. The objective of your Company's CSR policy is to lay down the guiding principles for proper functioning of CSR activities to attain sustainable development of the society around the area of operations of the Company. The Company undertook various activities during the year under review in line with its CSR Policy and as prescribed in Schedule VII to the Companies Act, 2013. Apart from long term ongoing projects, the Company has supported and implemented projects under its CSR Policy in the field of Healthcare (including Preventive, Promotive & Curative), Promoting Education, Skill training, Social Welfare, Environment & Rural development amongst others.

A report on social performance made by Adhunik Power & Natural Resources Limited (APNRL), Padampur, as a part of corporate social responsibility, during the mentioned period is here under. It is worth mentioning that APNRL had executed the community development. The focus area wise developmental activities report is as follows:

HEALTH & MEDICAL SERVICES

Adhunik Power & Natural Resources Limited, Padampur has always focused on community health issues and health management measures, and facilitated healthy living of individuals through its corporate social responsibility team. Following activities undertaken for community health-

- 1. Health & Medical Services:** Villagers of peripheral villages were provided 24X7 ambulance facility for better treatment. The villagers availed the ambulance facility which is as follows month wise.

Status of Referral Patients						
Month	M	F	Children		Total No.	Village Covered
			M	F		
April'23	6	12	1	2	21	Badahariharpur, Srirampur, Dumra, Padampur , Kandra, Bikanipur, Virdhwajpur,Balidih etc.
May'23	7	22	1	4	34	
June'23	10	11	1	3	25	
July'23	8	19	1	5	33	
Aug'23	9	18	2	3	32	
Sept.'23	11	23	1	6	40	
Oct.'23	5	11	1	6	23	
Nov.'23	16	11	2	3	32	
Dec.'23	4	20	0	2	26	
Jan.'23	9	22	1	2	34	
Feb.'23	7	11	2	2	22	
Mar.'23	8	7	3	2	20	
Total	100	187	16	40	342	

- 2. Medical Facilities:** Free medical treatment was provided to the villagers by APNRL, Padampur. The villagers availed the medical facilities which are as follows.

Status of Patients-

Month	M	F	Children		Total No.	Village Covered
			M	F		
April'23	103	86	20	27	236	Balidih, Badahariharpur, Srirampur, Dhatkidih, Padampur, Pindrabera, Kandra, Gamharia, Rapcha, Virdhwajpur, Bikanipur etc.
May'23	96	73	18	17	204	
June'23	90	58	29	29	206	
July'23	123	117	56	36	332	
Aug'23	167	116	47	38	368	
Sept.'23	122	90	28	31	271	
Oct.'23	140	96	34	27	297	
Nov.'23	82	69	25	17	193	
Dec.'23	55	53	14	18	140	
Jan.'23	88	85	32	17	222	
Feb.'23	84	82	25	23	214	
Mar.'23	93	80	31	27	231	
Total	1243	1005	359	307	2914	

- 3. Village health check-up and awareness camp:** A health check-up and awareness camp was organized at Badahariharpur on 12.4.2023 under the CSR department of Adhunik Power. A total of 14 villagers including children were examined in the camp as well as medicines were distributed among the patients as per the requirement. Medical Officer Dr. GP Murmu gave health related information to the people during the camp. These camps ensure that people get timely health care and see a doctor even before a minor health problem becomes serious.



- 4. Planning and convergence meeting for TB free panchayat:** A planning and convergence meeting has been conducted on 27.4.2023 at Adhunik Power and Natural Resources Limited premises with various stakeholder's officers of The Union, Ranchi, MOIC & officers of Health dept., CDPO-ICDS, RRI members, Village Leaders towards TB Free Panchayat. The APNRL has taken the initiative to facilitate and support this Government



of India initiate, which has been recently quoted by Hon'ble PM of India on World TB Day at One world summit.

5. APNRL, Supporting the National Program on TB Elimination and becomes Nikshay Mitra:



CSR department of Adhunik Power and Natural Resources Limited (APNRL), Padampur distributed nutritional food packets to the poor residents suffering from TB of Gamharia block every month (up to 6 months) in a phased manner. Moong, jiggery, gram, arhar dal, soybean, porridge, oats, oil and bangles were made available to

the patients through nutritious food basket. Which was distributed in collaboration with TB Cell, Community Health Center (CHC), Gamharia, which improved their diet.

Phase	No. of TB Patients
Phase-I, Jan'23 to June'23	20
Phase-II, April'23 to Sept.'23	30
Phase-III, July'23 to December'23	20
Total	70



6. Training cum awareness campaign on TB: In collaboration with TB-Cell Gamharia, training cum awareness campaign on prevention and treatment of tuberculosis was conducted from



May'23 to Nov'23 in various villages of Dugdha Gram Panchayat. More than 400 women were made aware about the causes and prevention so that the increasing chances of tuberculosis can be reduced. They were informed that TB can occur when one's body is weak and also does heavy/hard physical labour, takes drugs/alcohol, lives in

unhygienic environment. If we pay a little attention to ourselves, we can eliminate the possibility of getting TB disease. We appealed that the person who has cough and fever for more than two weeks should get himself examined in the nearest CHC/hospital. If the case is confirmed, then get yourself registered online immediately so that you can get the benefits given by the government like financial support, medicines etc. If it is not treated in the early stages, it proves fatal.



- 7. Screening for TB-detection of employee through X-Ray:** A Screening for TB through x-ray was organized on 6.10.2023 at APNRL-Dispensary for working employees in collaboration with Wellness Midpoint, Adityapur. In which X-ray was done on 105 employees. All found negative.



- 8. First AID Box:** When someone has a physical accident, then it is most important to give first aid to the victim so that the damage caused by the physical accident can be reduced. A first aid box is a kit that contains medicines, equipment, and self-defense items to use in an emergency. With the help of this kit, first aid can be given to the injured person. Keeping this in mind, first aid box has been provided under CSR to Anganwadi center Badahariharpur, Govt. School-Padampur & Badahariharpur in the presence of Panchayat Samiti members Ms. Lakshmi Murmu, Mr. Anil Sardar, School teachers and Mr. Sanjeet Sinha.



- 9. World Anti-Tobacco Day 2023:** World Anti-Tobacco Day is observed every year on 31 May across the world. The day aims to draw global attention to the wide spread and negative health effects of tobacco, which currently leads to deaths worldwide. The theme of the world No Tobacco day 2023 is '**We need food, not tobacco**'.



Various activities like signature campaign, essay competition, speech competition were organized by APNRL. Signature campaign at plant level as well as speech and essay competition at village level was organized.

Signature campaign organized in plant premises on 31st May 2023 at 8.30AM to raise awareness amongst the workers/employees against bad effect of tobacco in human body. More than 100 Workers/employees/Senior Officers participated in the signature campaign with great enthusiasm, this exercise will help in reducing the use of tobacco.



Essay & Speech Competition also organized at Community Center, Badahariharpur where about 40 village youths from different villages participated in this program with full enthusiasm. The topics for all the competition were “नशा एक अभिशाप है कैसे ... इसे दूर करने के उपाय (Addiction is a curse, how to get rid of it).

Winner of Essay competition – 1st prize to Ms. Laxmi Bodra D/O Sri Simal Bodra, Badahariharpur, 2nd prize to Sukumati Hansda D/O Sri Guru Pada Hansda, Srirampur, 3rd to Mr. Ghanshyam Mahato S/O Sunil Kumar Mahato, Badahariharpur and 4th Prize given to Ms. Sulachna Singh Munda H/O Sri Anil Sardar. Speech Competition- 1st prize to Ms. Sushmita Mahato, 2nd to Ms. Sukumati Hansda and 3rd to Mr. Ghanshyam Mahato. Later all the Youth were address by the Madam Ambika Mahato as to spread the awareness regarding this sensitive issue.



Mr. Dharnidhar Singh, Mr. Anil Sardar, Mr. Sanjeet Kumar Sinha and Ms. Ambika Mahato were the judging members of the drawing and essay competition. The program was conducted by Sanjeet Kumar Sinha-CSR.

10. Eye check-up camp: Eye problem is an issue in area. CSR, department coordinated with Purnima Netralaya, Jamshedpur and the Eye check-up camp were organized on 24.5.2023



5.9.2023 & 11.10.2023 at the OHC, Padampur and APNRL colony. Total 148 persons from the various villages including APNRL employees availed the check-up Our CEO Sri Arun Kumar Mishra has inspected eye check-up camp along with Sri Rajesh Sharma-VP, Sri. S.K.Parvez-DGM, Sri Amal Baidya-GM etc.

11. Blood Donation Camp-25.11.2023:

There is a huge gap between the availability and demand of blood in our country. In most of time, valuable human lives cannot be saved due to unavailability of blood or blood donors. In such a situation, a blood donation camp was organized at APNRL



Dispensary by the CSR team of Adhunik Power and Natural Resources Limited in collaboration with Jamshedpur Blood Bank and Voluntary Blood Donor Association on 25 November 2023. Employees of APNRL, Contractor and villagers of our peripheral Villages participated with enthusiasm and collected 76 Units of blood for this noble cause. Jamshedpur Blood Bank who was very active and handled the camp with six staff members and six members of VBDA, Jamshedpur. Coffee & Refreshments were provided to the persons who were part of the camp.

Mr. Biraj Kumar-GM, Mr. Rajesh Singh, DGM, APNRL, Mr. Manjeet Singh and other officials were also participated in the camp. The objective of the camp is that no one should die due to lack of blood.



12. Health Awareness Program: The Company has always been empowering the village women through various training events to lead their life with sustainable social recognition. Every



month We organized Health Awareness program in association with Anganwadi worker on nutrition & breast feeding at Anganwadi Center, Badahariharpur, Padampur.

Women were participated in it. Along with this, **Annaprashan program** were also organized



for children of six months, in which children were fed complementary food with complete customs, women were given special information about this subject. **Godh bharai**

program: The Company has always been empowering the village women through various training events to lead their life with

sustainable social recognition. CSR-Department APNRL organized **Godh bharai** celebration at AWC for pregnant women to encourage the good health and healthy living through the

nutrition education as the malnutrition is the main obstruction to the National Development. Through this event pregnant women were given information on the subject of diet, hygiene, vaccination, health check-up etc. Also it is prayed for good health and safe delivery of mother and child during pregnancy. A group of women came together to bless the pregnant woman and gave some items like thali, apple, banana, bangle, bindi, etc. to the pregnant woman.



New Enrollment/ Admission of Children in AWC, Padampur for pre-school education: We know that Anganwadi centers provide pre-school education to children aged three to five



years. Children studying in pre-school education in Anganwadi centers also get the benefit of MDM i.e. mid-day meal.

New children were registered for pre-school education in Anganwadi Centre where APNRL were given slate, pencil, pencil box and biscuit packets to the new

children of 3 years of age by the CSR department of APNRL. All the children were also introduced to the new children. The new children were very happy. On this occasion, to promote education,

13. Poshan Maha -Seminar, Godbharai and Baby show: Malnutrition is a global problem & our area is also suffering from this problem due to unbalanced diet and lack of knowledge



Form 13 - 28 Sept'2023 different activities like a Seminar, Godbharai and Baby show organized in different villages Srirampur, Bikanipur, Padampur villages on the occasion of "**Poshan Maha**" Approximately 200 women including pregnant, lactating women with their child and CSR team-

APNRL were participated in the programme. Anganwadi workers displayed nutrition related items on the floor and told about the importance of mixed food. She said that eating well before and during pregnancy is essential for the safety and health of the unborn child. She



said that pregnant women and lactating mothers should take extra/ supplementary food for their unborn child and infant every day. After that we organized **a Godh bharai** function for pregnant women to encourage the good health and healthy living through the nutrition education as the malnutrition

14. International Yoga Day 2023: The 9th edition of International Day of Yoga was celebrated on 21st June 2023 with the employees and villagers at Sankalp Bhawan, APNRL.

The Yoga Class inaugurated by Mr. M. N. Singh Head O & M with lighting of candles who emphasized the importance of Yoga and physical exercises in daily life. About 70 employees including contract employees



participated in Yoga Class. Mr. Rajesh Sharma, Mr. Sanjiv Chaudhary, Mr. NSP Rao, Mr. Amit Singh, Mr. Shrish Waghmare, Mr. Arjun Singh, Mr. D. K. Ghoshal and others

senior officers also participated with great enthusiasm. The sessions started at 7.00 am and carried out under the guidance of the yoga instructor Mr. Ashish Ranjan. Employees got the chance to know how yoga embodies unity of mind and body. This event had a very positive impact on creating awareness about the benefits of yoga in human life. Ranjit Singh, Anil Sardar & Diwakar Upadhyay gave their important support to make this event a success. The class ended with a vote of thanks by Sanjeet Kumar Sinha- CSR.

Water & Sanitation

1. Drinking Water Supply: The drinking water provided to villagers through water tanker towards meeting the need of drinking water and other related water use during their social functions. In this financial year, drinking water was provided through tankers in villages like Balidih, Barahariharpur, Srirampur, Dhatkidih, Padampur, Pindrabera, Kandra, Gamharia, Rapcha, Viradhwajpur, Ramjivanpur, Bikinipur, Marthabera, Nishchapur, Gopinathpur etc. of Dugdha Gram Panchayat, Rapcha Gram Panchayat, Dumra Gram Panchayat & Kandra Gram Panchayat, Gramharia block, Saraikela-Kharsawan

The **objectives** of supply of drinking water to the villagers were as follows:

- i. To meet the drinking need of villagers
- ii. To meet the needs of water related other use(s) during water scarcity situation in villages.

The detailed status of drinking water supply is as below:

S. No.	Months	No. of Villages Covered	No. of Gram Panchayat/ Block	No. of Drinking Water Supply Services (trip) Provided through Tanker	Quantity of Supplied Water (in Liter)	Average Population Covered	Purpose
1	April'23	7	4	8	40000	2000	To meet the drinking water needs of villagers during functions and festivals.
2	May'23	7	4	12	60000	3000	
3	June'23	5	2	6	30000	1500	
4	July'23	2	1	4	20000	1000	
5	Aug'23	2	1	4	20000	1000	
6	Sept.'23	3	3	4	20000	1000	
7	Oct.'23	2	2	4	20000	1000	
8	Nov.'23	2	2	4	20000	1000	
9	Dec.'23	1	1	1	5000	250	
10	Jan.'23	1	1	1	5000	250	
11	Feb.'23	3	2	5	25000	750	
12	Mar.'23	5	3	13	65000	3250	
Total		15	4	66	330000	16000*	

* The same people may have benefited again and again at different times.

- 2. Sanitation campaign- Spraying and distribution of bleaching powder:** During rainy session the health of the people in the villages around the plant is a major concern as most of the

Adhunik Power launches Swachhata Hi Seva campaign



diarrhea cases were found in the previous year only during the rainy season.

The main reason for diarrhea is polluted water and unhygienic conditions around the village as well as lack of information among the people about prevention of diarrhea.

Keeping this in mind, the CSR department of APNRL showed its solidarity by running a health awareness campaign in Badahariharpur from July'23 to Sept'23, which continued in the villages of Padampur, Srirampur, Chhotahariharpur and Bikanipur.

In continuation, bleaching powder was sprayed in drains, wells and waterlogged areas with the help of village volunteers as well as bleaching powder was also provided to the villagers to avoid various diseases caused by dirt and mosquitoes etc. This program is being run with the aim of controlling diarrhoea, malaria and water borne diseases.



- 3. Repairing of Hand Pump:** In view of water problem in Anganwadi center Srirampur due to hand pump failure, we got the hand pump repaired under CSR on 13.6.2023. Due to which water was made available to AWC's children and villagers. The villagers were happy and thanked the company.



EDUCATION

These can be cited as major challenges in achieving the development goals related to education in our country. In view of such facts and challenges, APNRL, Padampur launched Education Promotion Initiative as a part of Corporate Social Responsibility.

- 1. Project CYBER VILLAGE:** In order to make the village youths/students of Barahariharpur and nearby areas computer literate under the Project CYBER VILLAGE.

The **objectives** of the **Project CYBER VILLAGE** were as under:

- To make village youths/students computer literate for their pursuit of better career in future.
- To make villagers aware of the importance of information revolution through internet.



The detailed status of the **Computer Literacy Centre**:

S. No.	Center	Center Wise Enrollment Status of Village Youths			Subjects Taught
		Male	Female	Total	
1	Badahariharpur	12	9	21	MS Office/ Tally/ Internet
	Total	12	9	21	

Internet facility has been provided to the youth in this center so that the youth can develop.

2. Certificate distribution ceremony for computer center students: On 19th December, 2023,



Certificate distribution ceremony was organized at Computer center, Badahariharpur for passed-out students (session May'2023- October'2023). Students received their certificate after completing 6 months of course, where students learned the basics of computers, English and Hindi

typing and tally.

2. Teaching learning materials to AWCs: Under CSR, APNRL provided teaching learning materials like Carpet, Alpha Word Chat, Flower Chat, Animal Chat, Fruit Chat etc. to Anganwadi Centers



(Padampur, Srirampur, Badahariharpur, Bikanipur) near the plant area for preschool children to improve education during the month of Sept,23.

3. Bus facilities: Bus facility has been providing to girl students of peripheral village for higher education at Jamshedpur. About 40 villages girl students are availing the bus facilities.

4. Drawing Competition 1st to 3rd June 2023: Skill development among the local children is the



prime objective of our CSR programme. To implement this objective, we had organized drawing competition in Srirampur, Padampur, Badahariharpur and Dhatkidih on the occasion of **World Environment day 2023**. More than 90 children from the mentioned village participated and were awarded. The children were very happy.

5. Drawing competition: Skill We organized drawing competition on 12.12.2023 and 13.12.2023



on the occasion of **Energy Conservation week 2023**. In which 3 best students from each school were selected and awarded. Total 57 students participated in drawing competition from different Govt. Schools like Badahariharpur, Padampur and

Srirampur. The main objective of this competition was not only to see the creative aspect but also to trigger the thought process of the students and sensitize them towards burning and serious issues like energy conservation and also develop their positive thinking about our society.



6. Speech competition- 12.1.2023: Every year, **National Youth Day** is celebrated on 12th January to commemorate the birth anniversary of one of the greatest philosophers and spiritual leaders, Swami Vivekananda.



On the occasion of National Youth Day, a speech competition was organized by CSR team of Adhunik Power in Utkramik Madhy Vidyaalay, Barahariharpur on the occasion of National Youth Day, its objective is to spread the thoughts and

ideals of Swami Vivekananda to every youth.

The program started with a tribute to Swami Viveka Nand by the Principal Mr. Harendra Kumar Pathan. Around 150 students participated out of which 10 students expressed their views, they told about the history/life of Swami Viveka Nand. All teachers and students were present during the program. The jury members have selected first, second and third place and awarded.



WOMEN EMPOWERMENT & LIVELIHOOD

Adhunik Power & Natural Resources Limited, Padampur as a part of its corporate social responsibility with local Gram Panchayats and peer groups to sensitize the village elders and women to come forward for women development and pave the way for their participation in the development process that gives a decent income, gives some status in society and some dignity and meaning in life. It also conserves and, if possible, regenerates the environment and the purchasing power to lead the better life.

1. **Women empowerment & Livelihood:** Every month meetings of SHG members are organized in Padampur, Pindrabera, Barahariharpur, Chhotahariharpur; In which members discuss issues like income, expenditure and loan repayment, self-employment and personal hygiene etc. As a result, some women group have started their own employment.
2. **Agarbatti Making by Swarsati Mahila Samiti, Kandra:** The members of Swarsati Mahila Samiti, Chotahariharpur engaged in Agarbatti making as their livelihood. CSR team is facilitating the group in marketing to achieve their aim.
3. **Nil Production by Johar Jaher Ayo Mahila Samiti:** 15 - members of **Johar Jaher Ayo Mahila Samiti** of Padampur engaged in Nil Production & selling. This has helped them in increasing corpus fund for their group. They have made this activity as their livelihood.
4. **Mahila Samiti initiate Mushroom production at Badahariharpur:** The members of **Jai Maa Sarna Mahila Samiti** (SHG) at Badahariharpur engaged in Mushroom making as their livelihood. CSR Team of APNRL is facilitating the group in marketing of Mushroom to achieve their aim.



5. **International Women's Day 2024:** The International Women's Day 2024 was celebrated on



11 March 2024 at Conference Hall, community building, Badahariharpur. The international theme of this year's celebration was **"Invest in women: Accelerate progress".** This day also marks a call to action for accelerating gender parity. Not only does it celebrate the achievements and

progress women have made, but it also highlighting the ongoing struggles for equality and the need for continued advocacy and action worldwide.

Approx. 80 women participated from catering villages like: Badahariharpur, Viridhwajpur and Chotahariharpur. The Function was inaugurated with the lighting up of lamp by the Chief Guest Ms. Pinky Mandal, Vice President, Jila Parishad, Saraikela. Ms. Anita Tudu, Pramukh-Gamharia and Ms. Laxmi Murmu, Panchayat Samiti Member were present as the Guest of Honour. The Chief Guest, the Guest of Honour and the Panchayat Samiti Member were felicitated by the in-house team comprising of Ms. Esha Choudhury, Ms. Neha Srivastava and Ms. Sarla Hembrom.



Out of the 80, many women came ahead and shared their views, recited few lines on Womens'day, etc. All of them were presented with gifts for motivation and for more active participation in the near future. Carpet was also provided to Panchayat Samiti member Ms. Lakshmi Murmu for village level meeting. The programme concluded with the vote of



thanks by Sarla Hembrom-APNRL, and followed by the refreshment. including guest.

Sports & Culture

When we look at the overall dimensions of development, sports and culture hold an important place as a key component in harnessing human resources through physical fitness, sports and culture for rural communities, especially village youth. Based on the local need, a well-mapped program was organized in partnership with various stakeholders like Gram Panchayats, Sports Clubs, Local group etc. The status of organized sports and culture events were as follows:

1. **Volley ball and net:** Sports play great role in improving and maintaining the health and fitness, improving mental skills and concentration level. We provided volleyball & net to the Principal, UM School, Padampur for the students on 29.7.2023. The students were very happy.



Volley ball and net also provided to youth club, Pindrabera, Badahariharpur, Bikanipur for the Youths on 5.8.2023. The Youths were very happy.

2. **Inter Village Chess Competition:** We organized an Inter village chess competition on 20.7.2023 at Community Centre, Bikanipur with the youth of peripheral villages - Hariharpur, Srirampur, Bikanipur & Padampur on the occasion of World Chess Day 2023. Around 30 youth from different villages participated including girls out of which 3 boys and 3 girls selected for awards. Two youths were identified for consolation prizes. The winners of this match were Mr. Singrai Mardi in the boy category and Sangeeta Sardar in the girl category. Mr. Paga Sardar gave the welcome speech. He said that chess is a game which helps us to improve cognitive skills like memory, planning and problem-solving and also helps the youth



to become better problem solvers in their everyday life. A lot of enthusiasm was seen in the youth, the game started with great enthusiasm. At the end of the match, the youth said that this type of competition should continue in the future as well. Vote of thanks was given to Mr. Anil Sardar.

3. **Sports T-shirt distribution programme:** sports are a very important for the development of a healthy and strong body and to maintain better health and fitness. In view of the above APNRL distributed 423 sports T-shirts in four colors (Green, Red, Yellow and Blue) among school



children of Govt. School Badahariharpur, Srirampur, Padampur & Pindrabera in the presence of Village Education Committee members, School Teachers, Villagers and representatives of APNRL on 17.10.2023, 18.10.2023, 27.10.2023 & 10.1.2024 respectively in the school campus to promote sports activities.

In order to make this event successful, a lot of preparations were made by School Children. The CEO of the Adhunik Power & Natural Resources Limited had to come as



the Chief Guest and other respected people of the company were invited to grace the occasion. It was a matter of great pride for us.

4. **Inter Village Volley Ball Tournament:** Taking part in any sport has its merits. But volleyball in itself is a league of its own, providing youths with a plethora of benefits like organization, teamwork and communication. Keeping this in mind, CSR Team of Adhunik Power & Natural Resources Limited, Padampur organized an Inter-Village Volleyball Tournament for the youth on **29th December, 2023** in the Pindrabera ground. A total of 4 teams (Srirampur, Pindrabera, Padampur, &



Badahariharpur) from nearby villages of the plant area participated. The participants under the able guidance of Mr. Sanjeet Kumar Sinha and Mr. Anil Sardar, participated enthusiastically and displayed excellent sportsmanship which was evident in the matches.

Srirampur village bagged the first position and **Padampur village** was declared the first runner up. Passion for volleyball was seen in the participants as well as the audience who cheered with utmost zeal and gusto for their respective village. The Tournament was a great success as it witnessed healthy competition and a spirited fight amongst the participants.



The chief guest at the function was Smt. Sukmati Mardi, Head, Rapcha Gram Panchayat. She said that playing is necessary for a healthy life and during his speech he also praised the Adhunik power for this competition. The program organizers were Mr. Sujan Handa, Mr. Gorkha Hembram, Mr. Pawan Hansda and Mr. Anil Sardar. The function ended with vote of thanks by Mr. Sanjeet Kumar Sinha.

5. **Sports and Culture program, Badahariharpur 2024:** A Sports and culture program organized by Adiwasi Aawen Akhara Committee, Barahariharpur on the occasion of Republic Day at Badahariharpur Ground of Dugdha Gram Panchayat, Saraikela-Kharsawan from 26 to 29 January 2024. A large number of villagers from different parts of the area were



participate in sports and cultural programs. The program motivates the local youths to gather at a place with team spirit and it promotes the rural sports activity in the area.



Adhunik Power & Natural Resources Limited, Padampur facilitated with financial support of Rs.50000.00 and other required resources like medical team, ambulance service, drinking water facilities, preparations for making playground ready, cleaning of sites etc.

After the introduction of the teams, the guest of honor Mr. Mahesh Agarwal addressed the players and encouraged them to showcase their talent in true spirit. He thanked the committee and also said that the company will always support to the committee. Mr. Mahesh Agarwal and Rajesh Singh kicked the ball to commence the Tournament. The organizing committee were very happy and thanked to Mr. Mahesh Agarwal and Adhunik family to motivate them. They also thanked the Adhunik company for its contribution.

6. **Sports & Cultural Programme at Padampur:** Every Year Dibu Kishun Memorial Club, Padampur organized three-day event of sports and culture program on the occasion of Independence Day at Padampur Ground. The programme motivates the local youths to gather at a place with team spirit and it promotes the rural sports activity in the area. Similarly, this year the major events were Football Tournament, Chaw Nitya, Murga Larai, Mena Bazar etc. 32- boy's football team and 4 junior team participated in football tournament from nearby villages of Saraikela Kharsawan District. More than 20000 people came to see it as if the people of the whole city had come here. Adhunik Power & Natural Resources Limited, Padampur facilitated with financial support and other required resources like medical team, ambulance service, preparations for making playground ready, cleaning of sites etc.



7. **Financial Support to Village committee, Pindrabera for World Tribal (Indigenous) Days 2023:** As you know the United Nations declared 1994 the year of World Tribal (Indigenous) Days. Thus, on 9 August 1995, World Tribal (Indigenous) Day was organized for the first time. Every year on 9th August "World Tribal (Indigenous) Day" is celebrated to raise awareness and protect the rights of tribal. Population. In this regard, an awareness sammelan was organized by Village committee, Pindrabera. The company had provided necessary resources like preparation of playground, cleaning of sites, drinking water facilities etc. as well as **financial support** to the village committee. About 2000 people from different villages of Gamharia block participated in the program.

8. **Football Tournament at Pindrabera:** Every Year Azad Club Pindrabera organized a football tournament. This tournament motivates the local youths to gather at a place with team spirit and it promotes the rural sports activity in the area. Similarly, this year the Football Tournament was organized on 14.10.2023 & 15.10.2023. 48 team participated in football tournament from nearby villages of Saraikela Kharsawan District. More than 30000 people came to see it as if the people of the whole city had come here. The Adhunik company had provided necessary resources like preparation of playground, cleaning of sites, drinking water facilities etc. as well as **financial support** to the village committee



9. **Celebrated Sarhul Puja, Padampur:** Sarhul festival is one of the most popular tribal festivals,



which is celebrated every year all over Jharkhand. The new year begins with Sarhul festival. It is a ritualistic and traditional act of the villagers. We celebrated Sarhul Puja on 15th March, 2024 with the villagers of Padampur, Bikanipur and Balidih. In which more

than 1000 population of different villages participated. The traditional folk dance was inaugurated by Sri Arun. K. Mishra, CEO Adhunik Power & Natural Resources Limited, Padampur as chief guest. He encouraged the organizers Sri. Krishna Baskey- Gram Pradhan, Padampur, Sri Ramdas Tudu, Sri Indro Murmu, and participants for their laudable performance. Sri Rajesh Sharma- VP-Finance, Sri S. K. Parvez, DGM-HR, Manoj Acharya-DGM, Sri Kamlesh Kumar Head-Env. & Hort., Sri Arjun Singh – Security Head, Sri Pamkaj Sinha-Manager and Mr. Dharni Dhar Singh-



Admin were also presented.



Adhunik Power & Natural Resources Limited, Padampur is playing a vital role in promoting the traditional culture of the local communities, APNRL provided finance support to the villagers of Padampur in Sarhul Puja and also helped in cleaning, mowing and

whitewashing at Saransthal and Jahirasthal.

ENVIRONMENT

- 1. Celebrated Earth day 2023:** Earth Day is an important reminder of the interconnectedness of all living things and the urgent need to take action to protect our planet. Earth Day, observed every April 22, is a worldwide annual event that serves to increase environmental awareness and inspire individuals to take action in protecting our planet. the global organizer of Earth Day and the largest recruiter of environmental movements worldwide, announced today the theme for Earth Day 2023 – “Invest in Our Planet.” Adhunik Power & Natural Resources Limited is always concerned about the nature, environment and earth. Showing its deep concern about the earth APNRL have celebrated Earth Day by plantation of saplings. The CEO of the company Mr. Arun Kumar Mishra with other senior officials namely Mr. M N Singh, Mr. Rajesh Kumar Sharma, Mr. Ajay Manohar Bangde, Mr. Amal Baidya, Mr. Biraj Kumar, Mr. Sanjeet Sinha and Mr. Kamlesh Kumar planted saplings to show their nature caring gesture.



- 2. Celebrated World Environment Day 2023:** Our Plant Celebrated World Environment Day on 5th June, 2023. First a **cycle rally** was flagged off by CEO sir, Shri Arun Kumar Mishra in which



around 300 employees including villagers participated, they were moving from plant premises to Pindrabeda Vs Kandra bus stand and raising loud slogans during rally. Being a busy road, security and supervision personnel took care of the cyclists. Then he also initiated the plantation of tree inside the premises of

the company. Officers and village children also participated in plantation of tree. He addressed the audience with an enlightening speech mentioning how small endeavors could make a big difference. He urged everyone to save the environment as well as spread awareness among the people. He also said that "Each one can do his bit by stopping the use of plastic bags; stop wasting food, start using public conveyance to save fuel. For a greener tomorrow, each one needs to do his or her bit". About 300 sapling distributed among the villagers also. The vote of thanks was given by Sr. Manager-Kamlesh Kumar-Environment Department.



3. Tree plantation programme: Trees give us fresh air to breathe by taking in carbon dioxide and



releasing oxygen. It provides home and food to many animals, insects and birds. Trees help keep the

climate cool and prevent global warming. It helps prevent soil erosion by attaching itself to the soil with its roots. In view of this, we organized a tree plantation program on the occasion of Teacher's Day at UM School, Padampur on 5.9.2023. All the students and teachers participated in this program. Also, some officers of APNRL including CEO have participated in program. They guided to children on how to plant a sapling properly. We planted saplings near boundary wall of the school. The CEO of APNRL gave a speech on importance of tree plantation. He said that Tree plantation is important because it provides fresh fruits, vegetables, nuts, and other foods for the survival of life on Earth. The program ended with the vote of thanks given by school principal Ms. Joba Mandal.



Infrastructure

As it is a well-known fact that infrastructure development accelerates the pace of human development and economic growth. Therefore, development of infrastructure is one of the major focus areas of development of Adhunik Power and Natural Resources Limited (APNRL), Padampur under which the following works have been undertaken this year.

1. Repairing of Village Road: Adhunik Power & Natural Resources Limited, Padampur has been instrumental in improving socio-eco conditions of local communities around which the company is operative.

Due to the rain, there were potholes on the road of Virdhwajpur village, due to which the



villagers were facing a lot of trouble in the movement. We took note and provided soil, slag (plant waste material) and JCB on 6.7.2023

for fill the potholes/trenches and repairing the road. Now the road has been repaired and the villagers are happy with the work.

2. Village road repairing from Choto hariharpur to High way, Kandra-Saraikela road:



meeting with the residents of Chhotahariharpur, the villagers appealed to us to provide JCB from company for laying slag on the road so that the road can be repaired. The villagers told that the condition of village road is so bad that an accident may occur any time due to

the ditches it has i.e. there is a high risk of accident. They said that our children, elders and others are getting hurt every day, the road has been almost impassable. We are continuously facing that oppression. The villagers said that they would themselves arrange for slag for road repairs.



In view of the above, under CSR, JCB was made available to the villagers through the company (APNRL) on 6.9.2023 and 15.9.2023. The villagers got the road repaired under their supervision. Now the road has been repaired and the villagers are happy with the work.

3. Ground preparation, Badahariharpur:



A meeting was held with the rural youth of Barhariharpur regarding the preparation of the football ground and cutting of grass, where a four-day football and cultural program will be organized in this ground on the occasion of Republic Day 2024. On 9.12.2023, the land was leveled by JCB and

the land was settled by pouring water from the tanker.

4. Repairing of community well and drainage, Padampur:



Before



After

of Padampur on 22.1.2024, it was found that the community well near village road

whose upper part is broken and there is no proper drainage system in it, due to which water has frozen around the well, yet the villagers are using this well. Due to which there is a possibility of water related disease, hence it needs to be fixed as soon as possible. Keeping this in view we have made a repair plan with Civil Dept. APNRL. On 7.2.2025 our Civil Department took initiative and completed the repair work as well as construction of drainage and 4 feet wall for bath.

- 5. Cleaning, mowing and whitewashing of Sarnaasthal, Padampur** - On the occasion of Sarhul Puja, the company had done the work of cleaning, whitewashing and approach road at



Sarnasthal, the condition of which was pathetic. The villagers were very happy with this work. Here, Sahul Puja was celebrated at various places on 15.3.2024.

- 6. School's Window repairing (welding) and White washing of Class room at UM school, Badahariharpur:**

During my meeting with the school principal of Badahariharpur, he said that the school management has decided to develop a room for smart class, where the window needs to be repaired and the class room also needs whitewashed. The company took initiative in this regard and completed the said work in March 2024 under CSR. The Principal praised the company for this work.



- 7. Beautification of Shiv Mandir, Badahariharpur:** Shiv-ratri puja is a one of the traditional festival of Hindus. People worship the God Shiva. This year Shiv-ratri festival celebrated on 8.3.2024. In this regard the company arranged for white washing material for Shiv Mandir



under its CSR.

8. Repairing Water Tank. Mahadevpuram(Padampur): During our visit, we found that the iron stair / Ladder is damaged due to rust and pillar wall of overhead tank. The height of the stairs is approx. 30ft. The villagers contacted us for the above work. In this regard the company arranged for repairing of iron stairs and pillar wall of overhead tank under its CSR. All works were completed. The villagers were very happy with this work.



Others

1. 25-Plastic chair: During the public meeting in the Kandra police station, people used to find it difficult to sit, keeping this in mind, 25 new arm chairs were provided by the Adhunik company on 19.5.2023 to the Kandra police station under CSR. This chair will be of great help to the Kandra police station.



2. Awards/ letter of appreciation: On 12.7.2023 Adhunik Power received a letter of appreciation



from the Government of Jharkhand, which was jointly given by Jharkhand's Health Minister Mr. Banna Gupta and Labor Minister Mr. Satyanand Bhokta under the Nikshay-Mitra Yojana in the presence of state level officers in Ranchi.

3. Financial Assistance to Old age home Ashram "Aashirwad Bhawna" New Baradwari, Jamshedpur:

We visited Old Age Home, Baradwari on 14.7.2023 which is maintained by Brahma Kumaris and observed that all basic amenities like accommodation, foods,



cloths, medicines and other facilities are provided free of cost to the old peoples of above 60 years till their death. Health check-up and necessary

medical facilities are also provided. The ashram is running in the government building. Sri Arun Kumar Mishra-CEO handed over a check of Rs.39000.00 on behalf of Adhunik Power for a week's food to the old people living in the ashram.



Sri Arun Kumar Mishra & Director of the Adhunik Group Sri Nirmal Agarwal spent more time with old people and served food during lunch time and took lunch with together as a blessing. Sri Nirmal Agarwal said that service to old

people is the biggest service. We should always serve the old people by being ahead. We express our gratitude and respect to the caring staff who are taking care of the elderly with a sense of service.

4. Training Program on organic farming: On 3.1.2024, a session on **organic farming through new technology** was organized by NIT, Jamshedpur under Unnat Bharat Abhiyan in which 30 farmers from different villages of Rapcha Panchayat, Rapcha participated. NIT, Jamshedpur has also selected this village for sustainable development in its program.

Smt. Sukmati Mardi, Mukhiya- Rapcha Panchayat, Dr. Ranjeet



Unnat Bharat Abhiyan is a program by the Ministry of Human Resources, Government of India, designed for development in rural areas. This scheme was launched on 11 November

5. Financial Assistance to Voluntary Blood Donors Association: Voluntary Blood Donor

50 टीबी मरीजों के बीच बांटा पौष्टिक आहार

आधुनिक पावर की कार्यशाला में 'महिलाओं के अधिकार' पर चर्चा, सम्मानित की गयी नारी शक्ति

26 | Page

LIST OF LOCAL EMPLOYEES AS ON 31.03.2024

Sl.No.	Employee_Code	Employee_Name
1	00302223	Arun Kumar Mahato
2	00302236	Rajen Kumar Tudu
3	00302386	Budhram Baskey
4	00302387	Ajit Mahato
5	00302393	Bijay Baskey
6	00302436	Rajaram Baskey
7	00302462	Rajesh Kumar Mahato
8	00302503	Raju Tudu
9	00302506	Ruhi Ram Majhi
10	00302510	Santosh Mardi
11	00302516	Rajesh Mahato
12	00302517	Mohan Lal Mahato
13	00302518	Sumit Kumar Mahato
14	00302519	Tapan Kumar Mahato
15	00302520	Bibhishan Mahato
16	00302521	Suku Murmu
17	00302522	Bimal Kumar Mandal
18	00302524	Vikram Baskey
19	00302525	Mangal Besra
20	00302526	Bir Singh Hembram
21	00302527	Gopal Hembrom
22	00302529	Durga Hembrom
23	00302530	Suren Baskey
24	00302532	Budheswar Baskey
25	00302533	Karan Hembrom
26	00302534	Umesh Tudu
27	00302550	Birdhan Baskey
28	00302574	Anil Sardar
29	00302604	Sohan Kisku
30	00302605	Dilip Kisku
31	00302606	Rabindra Nath Majhi
32	00302607	Mokra Murmu
33	00302608	Lakhiram Tudu
34	00302384	Lal Mohan Mahato
35	00302610	Jiten Hansda
36	00302611	Jiten Sardar
37	00302612	Ashok Kumar Mahato
38	00302613	Mangal Majhi
39	00302614	Sagram Tudu
40	00302615	Sunil Kumar Tudu
41	00302616	Ganesh Mahato
42	00302617	Sachin Kumar Tudu
43	00302618	Alok Mahato
44	00302619	Rakesh Kumar Mahato
45	00302620	Chhotray Majhi
46	00302622	Govind Majhi
47	00302495	Anita Mahato

Sl.No.	Employee_Co de	Employee_Name
48	00302602	Sarla Majhi
49	00302237	Bangal Majhi
50	00302430	Laxman Baskey
51	00302493	Surajmani Baskey
52	00302507	Dilip Kumar Mahato
53	00302508	Dulal Mahato
54	00302509	Raju Mahato
55	00302528	Chhatamuni Baskey
56	00302540	Birendranath Baskey
57	00302541	Shailendra Tudu
58	00302621	Devi Lal Majhi
59	00302609	Durga Baskey
60	00302645	Manik Singh Sardar
61	00302659	Krishna Manjhi
62	00302660	Sakla Hembrom
63	00302661	Uttam Kumar Mahato
64	00302662	Shikar Hembrom
65	00302669	Som Murmu
66	00302670	Khirod Chandra Mahato
67	00302671	Sona Ram Hembrom
68	00302673	Rajesh Mahato
69	00302674	Nimay Mahato
70	00302676	Peeton Baskey
71	00302679	Bajinath Mardi
72	00302680	Nitai Sardar
73	00302681	Baliram Murmu
74	00302682	Karu Tilka Majhi
75	00302684	Jitu Hembrom
76	00302694	Akash Tudu
77	00302696	Mahendra Tantubai
78	00302698	Karu Besra
79	00302700	Ravindra Nath Tudu
80	00302708	Jeevan Manjhi
81	00302709	Birsa Hansda
82	00302711	Sanjay Mandal
83	00302712	Budhadev Mahato
84	00302713	Narayan Mahato
85	00302714	Jai Chand Mahato
86	00302715	Mithun Majhi
87	00302716	Sumit Kumar Mahato
88	00302717	Mantu Mahato
89	00302719	Ranjit Singh Sardar
90	00302523	Bablu Besra
91	00302531	Dasmath Hembrom
92	00302453	Paneshwari Kumari
93	00302454	Sunil Baskey
94	00302458	Nuna Baskey
95	00302463	Sonia Baskey
96	00302494	Saraswati Devi
97	00302501	Bangi Baskey

Sl.No.	Employee_Code	Employee_Name
98	00302628	Kalipada Singh Sardar
99	00302644	Vikram Singh Sardar
100	00302646	Jagnath Singh Sardar
101	00302647	Budheshwar Mahato
102	00302663	Ranjit Besra
103	00302664	Hopna Baskey
104	00302665	Sona Ram Baskey
105	00302666	Suku Majhi
106	00302667	Gopal Majhi
107	00302668	Ramdas Kisku
108	00302672	Ram Hembrom
109	00302677	Raju Baskey
110	00302678	Bablu Baskey
111	00302683	Rajendra Hembrom
112	00302688	Umesh Baskey
113	00302690	Anil Tudu
114	00302695	Sushil Kumar Tudu
115	00302697	Prakash Tudu
116	00302701	Som Majhi
117	00302702	Salku Tudu
118	00302707	Sukram Tudu
119	00302710	Surja Hansda
120	00302718	Santosh Sardar
121	00302720	Lal Mohan Mahato
122	00302721	Sohan Sardar
123	00302722	Paga Sardar
124	00302773	Shibnath Singh Sardar
125	00302774	Basanti Singh Sardar
126	00302775	Kali Pado Sardar
127	00302956	Ms. Pano Devi
128	00303025	Deepak Singh Sardar
129	00303026	Prem Kumar Sardar
130	00303027	Rakesh Mahato
131	00303028	Sanatan Baskey
132	00303029	Malati Devi
133	00303030	Naveen Baskey



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by :- ISO 9001:2015 & ISO 45001:2018



TC-12989

Test Report

ULR (Unique Lab Report) No.				TC	1	2	9	8	9	2	4	0	0	0	0	0	0	1	4	8	F
Discipline	Chemical	Group	Pollution & Environment					Sample Description					Waste Water / Effluent Water								
Report Release Date		16 th March, 2024						Report ID					YBAEEL-240229-152312-WW01								
W. Order / JSPCB App. No.		3030006964						Work Order Date					03.02.2024								
Type of Industry(If any)		Thermal Power Plant						Job code/ Ref. no.					YBAEEL/WA/L/W/Mar.-24/03								
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																			
Sampling Date		06/03/2024						Mode of sample collection					By YBAEEL Team								
Sampling Protocol		IS : 17614 (Part-1): 2021						Sample Code					240307-WW-E01								
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 % - 42					Temp.–27°C								
Sample receipt Date		07/03/2024		Analysis Started on			07/03/2024			Analysis completed on					16/03/2024						

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

Sl	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2022 (Electrometric Method)	pH	7.70 at 27.0°C	5.5 - 9.0
2.	Temperature	IS 3025 (P-09):2023	°C	27.0	--
3.	Total Suspended Solids	IS 3025 (P-17):2022 (Gravimetric Method)	mg/l	12.0	100
4.	BOD (3 days at 27°C)	IS 3025 (P-44):1993, RA 2019 (Oxygen Depletion Method)	mg/l	4.8	30
5.	COD	IS 3025 (P-58):2006, RA 2022	mg/l	44.0	250
6.	Chloride (as Cl ⁻)	IS 3025 (P-32):1988, RA 2019 (Argentometric Method)	mg/l	10.9	--
7.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24-Sec 1):2022 (Turbidity Method)	mg/l	18.4	--
8.	Copper (as Cu)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.01)	3
9.	Lead (as Pb)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	0.1
10.	Zinc (as Zn)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.10	5
11.	Chromium (as Cr)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.37	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 - Mukesh Singh
Tested By - Shivani Kumari Singh (Sr. Lab Analyst)

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

Verified & Issued by
Sanjeev Kumar Singh

(Technical Manager)

Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



ISO 9001:2015
ISO 45001:2018

Sewage Treatment Plant





भारत सरकार
भारत सरकार

Government of India

वाणिज्य और उद्योग मंत्रालय

Ministry of Commerce & Industry

पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पेसो)

Petroleum & Explosives Safety Organisation (PESO)

श्री मोहन, तीसरा माला, सीता कंपाउंड, 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

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

24 FEB 2023

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 अचिछादन में अनुमति 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 आकलन करें।

Please refer to your letter No.: OIN1307334, dated 23/02/2023

अनुमति संख्या P/HQ/JH/15/1065 (P257355) दिनांक 23/12/2011 को दिनांक 31/12/2026 तक नवीनीकृत कर इस पत्र के साथ अग्रपत्र 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। अनुमति के नवीकरण हेतु समस्त दस्तावेजों को अनुमति 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 पावली दें।

Please acknowledge the receipt.

भवदीय /Yours faithfully,

((आशेंद्र 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 के लिए 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>)

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

नवीनीकरण के प्रस्तावक के लिए स्थान
SPACE FOR ENDORSEMENT OF RENEWALS

पेट्रोलियम अधिनियम, अनुमति की शर्तों का उल्लंघन न होने की दशा में यह अनुमति फिस में बिना किसी छूट के दस वर्ष तक नवीकरणीय 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	अनुमति प्राप्तिकारी 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 अनुमति परिसर इसमें उपाबद्ध विवरण और शर्तों के अनुरूप नहीं पाए जाते हैं और जिन नियमों और शर्तों के अधीन यह अनुमति मंजूर की गई है उनसे किसी का उल्लंघन होने की दशा में यह अनुमति रद्द की जा सकती है और अनुमतिधारी 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
भारत सरकार

Government of India

वाणिज्य और उद्योग मंत्रालय

Ministry of Commerce & Industry

पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पेसो)

Petroleum & Explosives Safety Organisation (PESO)

श्री मोहन, तीसरा माला, सीता कंपाउंड, 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

सेवा में /To,

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

24 FEB 2023

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

Please refer to your letter No.: OIN1307334, dated 23/02/2023

अनुमति संख्या P/HQ/JH/15/1065 (P257355) दिनांक 23/12/2011 को दिनांक 31/12/2026 तक नवीनीकृत कर इस पत्र के साथ अग्रपत्र 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। अनुमति के नवीकरण हेतु समस्त दस्तावेजों को अनुमति 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 पावली दें।

Please acknowledge the receipt.

भवदीय /Yours faithfully,

((आशेंद्र 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 के लिए 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>)

HINDUSTAN PETROLEUM CORPORATION LIMITED

(A Government of India Enterprise)

QUALITY CONTROL LABORATORY

Visakha New Terminal

CONVENT JN.-SHEELANAGAR ROAD, BEHIND AIRPORT,

VISAKHAPATNAM- 530014

TEST REPORT

Product : HP INDUSTRIAL DIESEL OIL

Customer / Supplier / : NBOT-BONDED TANKS-PSD
Branch Plant
Source of Sample : TK105
Tank No : TK105
Qty of Sample/ : 1ltr uml / tk70/868.3 b.no.36/2019

Density/Type of Sample
Catg / Evnt / Actvty : Aft Receipt thru Dedicated P/L
Receipt/Despatch Mode :
Sample Drawn by : RAMAKRISHNA

Test Report No. : BFT/10835

Date of Sample Drawn : 20/07/19

Date of Sample Receipt : 21/07/19

Date of Sample Testing : 22/07/19

Date of Report : 22/07/19

Date of Printing : 22/07/19

JDE Sample Number : 865213

Batch No :

Test Line Number	Characteristics	Units	Test Method	Specifications		Result Value
				Min	Max	
5	DENSITY@ 15°C	Kg/m3	IS 1448 [P:16]	-	-	867.8
6	KINEMATIC VISCOSITY @ 40° C	cSt	IS 1448 P:25	2.500	15.000	4.860
7	FLASH POINT - PMCC	°C	IS 1448 P:21	66	-	79
8	WATER CONTENT	% Vol	IS 1448 P:40	-	.250	.100
9	TOTAL SULPHUR	% Mass	ASTM D 4294	-	1.50	.47
10	POUR POINT SUMMER	°C	IS 1448 P:10	-	21	3

Remarks:

Sample S.No.BFT/271 meets specification as per IS-15770:2008(Reaffirmed2014) in the above parameters

Appearance : Light Brown

- Notes :
- 1) The sample is drawn by client and results relate to sample tested
 - 2) The test report shall not be reproduced except in full without prior written approval of the Lab Incharge
 - 3) This test report shall not be used in any advertising media or as evidence in the Court of Law without prior written consent of Laboratory
 - 4) Test results reported are valid at the time of testing
 - 5) This is a system generated test report and hence does not require signature

Tested By : 35323320

VELAMURI DATTATREYA

Reviewed and Approved By : 35323320

VELAMURI DATTATREYA

*** END OF TEST REPORT ***

Page No. : 1 of 1



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by :-

ISO 9001:2015 & ISO 45001:2018



TC-12989

Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	0	1	3	0	F
Discipline	Chemical	Group	Atmospheric Pollution					Sample Description					Ambient Noise							
Report Release Date		16 th March, 2024					Report ID					YBAEEL-240229-152312- N01								
W. Order / JSPCB App. No.		3030006964					Work Order Date					03.02.2024								
Type of Industry (If any)		Thermal Power Plant					Job code/ Ref. no.					YBAEEL/WA/L/A/Mar.-24/01								
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																		
Sampling Period		04/03/2024– 05/03/2024					Mode of sample collection					By YBAEEL Team								
Sampling Protocol		IS 9989:1981 (RA 2020)																		
Meteorological Cond. of Field		W.C.– Cloudy					RH % - 59					Temp. - 29°C								
Sample receipt Date		07/03/2024		Analysis Started on			07/03/2024			Analysis completed on			16/03/2024							

*****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)	53.7	49.1	Day - 75 Night - 70
2.	Near Reservoir	Leq	dB (A)	56.9	53.9	
3.	Near Occupational Health Centre	Leq	dB (A)	47.8	42.6	
4.	Near Main Gate	Leq	dB (A)	61.9	54.6	

- 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.
Remarks	All disputes are subjected to the Ranchi Jurisdiction.
	Samples comply with prescribed limit.

Sample Drawn By - Mukesh Singh
Tested By - Akash Khalkho (Lab Analyst)

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

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

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand

Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



ISO 9001:2015
ISO 45001:2018



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by :-

ISO 9001:2015 & ISO 45001:2018



TC-12989

Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	1	3	1	F	
Discipline	Chemical	Group	Atmospheric Pollution						Sample Description						Work Zone Noise					
Report Release Date		16 th March, 2024						Report ID						YBAEEL-240229-152312- N01						
W. Order / JSPCB App. No.		3030006964						Work Order Date						03.02.2024						
Type of Industry (If any)		Thermal Power Plant						Job code/ Ref. no.						YBAEEL/WA/LA/Mar.-24/01						
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																		
Sampling Period		05/03/2024 – 06/03/2024						Mode of sample collection						By YBAEEL Team						
Sampling Protocol		IS : 9989:1981 (RA 2020), CPCB (Factory Act 1948)																		
Meteorological Cond. of Field		W.C.– Clear						RH % - 59						Temp. - 29°C						
Sample receipt Date		07/03/2024		Analysis Started on				07/03/2024				Analysis completed on				16/03/2024				

*****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)	65.2	62.8	85
2.	Near Cooling Tower	Leq	dB (A)	84.1	83.4	
3.	Near Turbine Floor	Leq	dB (A)	84.4	83.2	
4.	Pump House	Leq	dB (A)	73.5	71.8	
5.	Near Compressor House	Leq	dB (A)	84.2	84.1	

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 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 - Mukesh Singh
Tested By - Akash Khalkho (Lab Analyst)

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

Sanjeev Kumar Singh
16/03/24

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



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TC-12989

Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	0	1	2	7	F
Discipline	Chemical	Group	Atmospheric Pollution					Sample Description					Ambient Air Quality (Core Zone)							
Report Release Date		16 th March, 2024						Report ID					YBAEEL-240229-152312- A01							
W. Order / JSPCB App. No.		3030006964						Work Order Date					03.02.2024							
Type of Industry(If any)		Thermal Power Plant						Job code/ Ref. no.					YBAEEL/WA/L/A/Mar.-24/01							
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																		
Sampling Period		04/03/2024 – 05/03/2024						Mode of sample collection					By YBAEEL Team							
Sampling Protocol		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. Sati Steel								22°49'41"N, 86°03'48"E										
		C. Near Store								22°50'04"N, 86°03'41"E										
Meteorological Cond. of Field		W.C.– Cloudy				RH % - 59				Temp. - 29°C				W.D.– SE-NW						
Sample receipt Date		07/03/2024		Analysis Started on			07/03/2024			Analysis completed on				16/03/2024						

*****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/m ³	75.6	89.3	68.9	100
Particulate matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	54.6	44.9	37.8	60
Sulphure Dioxide (SO ₂)	IS:5182 (P-2/Sec1) 2023	µg/m ³	19.0	17.5	55.4	80
Nitrogen Dioxide (NO ₂)	IS:5182 (P-6) 2006 RA 2022	µg/m ³	60.3	27.9	28.5	80
Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	89.10	67.90	86.4	400
Ozone (O ₃)	IS:5182 (P-09):1974, RA 2019	µg/m ³	13.0	21.2	60.7	180 (1 hr.)
Lead (Pb)	IS:5182 (P-22) 2004, RA 2019	µg/m ³	0.107	0.037	0.041	1
Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	BDL (MDL - 4)	BDL (MDL - 4)	BDL (MDL - 4)	--
Arsenic (As)	USEPA - IO 3.2	ng/m ³	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 195:1966 (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.
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	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.
Remarks	All disputes are subjected to the Ranchi Jurisdiction.
	Samples comply with prescribed limits.

Sample Drawn By - Mukesh Singh
Tested By - Akash Khalkho (Lab Analyst)

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

Verified & Issued by

Sanjeev Kumar Singh

(Technical Manager)

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory



ISO 9001:2015
ISO 45001:2018

Enquiry Office -

Jamshedpur

Dhanbad

Hazaribag

Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand

Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by :-

ISO 9001:2015 & ISO 45001:2018

Test Report

Discipline	Chemical	Group	Atmospheric Pollution		Sample Description	Ambient Air Quality (Core Zone)	
Report Release Date		16 th March, 2024			Report ID	YBAEEL-240229-152312- A01	
W. Order / JSPCB App. No.		3030006964			Work Order Date	03.02.2024	
Type of Industry(If any)		Thermal Power Plant			Job code/ Ref. no.	YBAEEL/WA/L/A/Mar.-24/01	
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.					
Sampling Period		04/03/2024 – 05/03/2024		Mode of sample collection		By YBAEEL Team	
Sampling Protocol		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. Sati Steel			22°49'41"N, 86°03'48"E		
		C. Near Store			22°50'04"N, 86°03'41"E		
Meteorological Cond. of Field		W.C.– Cloudy		RH % - 59		Temp. - 29°C	W.D.– SE-NW
Sample receipt Date		07/03/2024	Analysis Started on	07/03/2024	Analysis completed on		16/03/2024

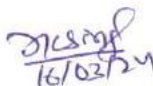
*****Test Results*****

Parameters	Test Methods	Units	Sampling Location			Limits
			Site A	Site B	Site C	
Carbon Monoxide (CO)	SOP No. YBAEEL/SOP/AIR/01	mg/m ³	BDL (MDL 1.8)	BDL (MDL 1.8)	BDL (MDL 1.8)	4
Benzene (C ₆ H ₆)	IS:5182 (P-11) 2006, RA 2022	µg/m ³	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/m ³	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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Remarks	All disputes are subjected to the Ranchi Jurisdiction.
	Samples comply with prescribed limits.

Sample Drawn By – Mukesh Singh
Tested By – Akash Khalkho (Lab Analyst)

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


16/03/24

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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ISO 9001:2015 & ISO 45001:2018



TC-12989

Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	0	1	2	8	F
Discipline	Chemical	Group	Atmospheric Pollution					Sample Description					Ambient Air Quality (Buffer Zone)							
Report Release Date		16 th March, 2024						Report ID			YBAEEL-240229-152312- A01									
W. Order / JSPCB App. No.		3030006964						Work Order Date			03.02.2024									
Type of Industry(if any)		Thermal Power Plant						Job code/ Ref. no.			YBAEEL/WA/L/A/Mar.-24/01									
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																		
Sampling Period		05/03/2024 – 06/03/2024					Mode of sample collection					By YBAEEL Team								
Sampling Protocol		IS:5182 and CPCB Air Manual Volume-1(NAAQM/36/2012-13)																		
Sampling Locations		A. Pindrabera Village																		
		B. Srirampur Village																		
		C. Padampur Village																		
Meteorological Cond. of Field		W.C.– Clear				RH % - 48				Temp. - 30°C				W.D.– SW-NE						
Sample receipt Date		07/03/2024		Analysis Started on			07/03/2024			Analysis completed on				16/03/2024						

*****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/m ³	94.6	78.4	88.3	100
Particulate matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	43.6	34.6	47.5	60
Sulphure Dioxide (SO ₂)	IS:5182 (P-2/Sec1) 2023	µg/m ³	24.3	42.5	56.2	80
Nitrogen Dioxide (NO ₂)	IS:5182 (P-6) 2006 RA 2022	µg/m ³	31.1	16.8	49.3	80
Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	79.9	29.0	99.1	400
Ozone (O ₃)	IS:5182 (P-09):1974, RA 2019	µg/m ³	9.6	2.2	46.9	180 (1 hr.)
Lead (Pb)	IS:5182 (P-22) 2004, RA 2019	µg/m ³	0.060	0.071	0.062	1
Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	BDL (MDL- 4)	BDL (MDL- 4)	BDL (MDL- 4)	--
Arsenic (As)	USEPA – IO 3.2	ng/m ³	BDL (MDL -02)	BDL (MDL -02)	BDL (MDL -02)	--

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Test Report

Discipline	Chemical	Group	Atmospheric Pollution	Sample Description	Ambient Air Quality (Buffer Zone)
Report Release Date		16 th March, 2024		Report ID	YBAEEL-240229-152312- A01
W. Order / JSPCB App. No.		3030006964		Work Order Date	03.02.2024
Type of Industry (If any)		Thermal Power Plant		Job code/ Ref. no.	YBAEEL/WA/L/A/Mar.-24/01
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Sampling Period		05/03/2024 – 06/03/2024		Mode of sample collection	By YBAEEL Team
Sampling Protocol		IS:5182 and CPCB Air Manual Volume-1(NAAQM/36/2012-13)			
Sampling Locations		A. Pindrabera Village B. Srirampur Village C. Padampur Village			
Meteorological Cond. of Field		W.C.– Clear	RH % - 48	Temp. - 30°C	W.D.– SW-NE
Sample receipt Date		07/03/2024	Analysis Started on	07/03/2024	Analysis completed on 16/03/2024

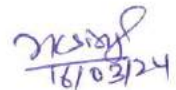
*****Test Results *****

Parameters	Test Methods	Units	Sampling Location			Limits
			Site A	Site B	Site C	
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Environmental Engineering Laboratory



ISO 9001:2015
ISO 45001:2018

Enquiry Office -

Jamshedpur

Dhanbad

Hazaribag

Pakur

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Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



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:

CORPORATE OFFICE : "LANSLOWNE 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



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

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

[Signature]
DGM(HR)

CORPORATE OFFICE : "LANSDOWNE TOWER", 2/1A, Sarat Bose Road, Kolkata - 700 020

Ph : +91 - 33 - 30517100 / 7200 / 7300 • Fax : +91 - 33 - 22890285

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Website : www.adhunikgroup.com



ADHUNIK POWER & NATURAL RESOURCES LIMITED

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Adityapur - Kandra Road, Saraikela - Kharsawan, PIN - 832402 Jharkhand
Phone : +91 - 657 - 6628400, Fax : +91 - 657 - 6628440
CIN - U40101WB2005PLC102935

Ref No APNRL/JSPCB/ES/2022-23/02

Date: 20th Sep 2023

Member Secretary

Jharkhand State Pollution Control Board,
HEC Campus, Dhurva,
Ranchi, Jharkhand.

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

Ref: Environmental Clearance letter No J-13012/8/2009-IA.II(T), Dated 09th May 2011.

Dear Sir,

In line with compliance of above referred EC letter point No XIII of general condition, Please find attached herewith Environmental statement (Form V) for the financial year 2022-23.

This is for your kind information & record please.

Thanking You

Your's faithfully

Kamlesh Kumar

Manager (Environment)

Encl: 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



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Website

: www.adhunikpower.com

ENVIRONMENTAL STATEMENT

For

1 X 270 MW COAL BASED THERMAL POWER PLANT

(UNIT II)

FINANCIAL YEAR 2022-23



September 2023



Adhunik Power & Natural Resources Ltd
Village-Padampur, District-Saraikela-Kharsawan
Jharkhand-832402

FORM-V

From:

Adhunik Power & Natural Resources Limited

Village: Padampur

Dist: Saraikela-Kharsawan – 832 402

Jharkhand,

To,

Member Secretary

Jharkhand State Pollution Control Board,

HEC Campus, Dhurva,

Ranchi, Jharkhand.

Environmental Audit Statement for the financial year ending on the 31st March-2023 for
Unit-II (1 x 270 MW)

PART – A

- | | | | |
|-------|---|---|---|
| (i) | Name & Address of the owner/occupier of the Industry operation or process | : | Sh. G.D. Agarwal
Adhunik Power & Natural Resources Ltd, Vill- Padampur, Adityapur-Kandra Road, Dist- Sariekela-Kharswan, Jharkhand |
| (ii) | Industry Category | : | Red Category |
| (iii) | Production Capacity – (Units-MW) | : | Power
270 MW Per Hour |
| (iv) | Year of Establishment
(COMMERCIAL PRODUCTION DECLARED) | : | 19 th May 2013 |
| (v) | Date of Last Environmental Statement Submitted | : | 20th September 2022 |

PART-B

Water and Raw Material Consumption

(i) Water Consumption KL/Day

Process	:	1234.6
Cooling	:	10768.3
Domestic	:	97.08

Name of product	Process water consumption per unit of product output	
	During the previous financial year	During the current financial year
	2021-22	2022-23
Electricity 270 MW Per Hour	0.210 KI	0.223 KI

(ii) Raw Material Consumption

Name of Raw Materials	Name of product	Consumption of raw material per unit of output (Total Production)	
		During the previous financial year 2021-22	During the current financial year 2022-23
Coal	Power	0.693 MT	0.690 MT
LDO		0.00018 KL	0.00027 KL

PART – C

**Pollution Discharged to environment / unit of output.
(Parameter as specified in the consent issued)**

Pollutants	Qty. Of pollutants discharged (Mass / Day)	Concentration of Pollutants in discharges (Mass / Day)	Percentage of variation from prescribed standards with reasons
(i) Water Unit Limit pH 5.5. to 9.0. SS < 100 mg/l Oil & Grease < 10 mg/l BOD ₅ < 30 mg/l COD < 250 mg/l	1) Effluent generated from Cooling tower, DM plant, IBD tank, CPI separator is being utilized in HCD system. 2) Effluent generated from CBD is being reutilized in quenching & dust suppression system. 3) Effluent generated from STP is being utilized for gardening		Concentration are below the prescribed limits. ETP & STP analysis report are enclosed as Annexure I
(ii) Air(Stack) PM SO ₂ NO _x	805.2 Kg/Day 28107.0 Kg/Day 8739 Kg/Day	36.55 mg/Nm ³ 1275.9 mg/Nm ³ 396.7 mg/Nm ³	Concentration are below the prescribed limits. Stack monitoring report are enclosed as Annexure II

Refer to MoEF notification dated 07.12.2015 and amendment to, FGD system installation are in progress to reduce the concentration of SO₂ in Flue gases.

* The Effluent Treatment facility for Unit I and Unit II is common.

PART - D
HAZARDOUS WASTES
(As specified under Hazardous Wastes Management and Handling
& Transboundary Movement Rules, 2008)

Hazardous Wastes	Total Quantity (KL).	
	During the previous financial Year 2021-2022	During the current financial Year 2022-2023
1 From Process	Used Oil- 3.135 Kl Waste Oil- 1.672 Kl	Used Oil- 5.016 Kl Waste Oil- 1.671 Kl
2 From Pollution Control Facilities	0 KL	0 KL

- The APNRL has obtained Hazardous Waste Authorization from JSPCB for Collection & Storage of Hazardous waste.
- Waste / Spent Oil is collected at centrally located point in isolated stores area meant for them in sealed M.S. Drums which is further sent to authorized recycler for disposal as per norms of MoEF.

PART -E

Solid Wastes

	Total Quantity (MT)	
	During the previous financial Year 2021-2022	During the current financial Year 2022-2023
(a) From Process • Bottom Ash	95261 MT	72964 MT
(b) From Pollution Control Facility • Fly ash	539810 MT	413461MT
(c) (1) Quantity recycled or re-utilized within the unit		
(2) Sold		
(3) Disposed • Fly Ash • Bottom Ash	539810 MT 50182.8 MT	406473.78 MT 0 MT

PART – F

Please specify the characterization (In terms of composition and quantum) of hazardous as well as solid and indicate disposal practice adopted for both these categories of wastes.

Hazardous Waste:

1) Solid Hazardous Waste:

- Bio medical Waste is generated from OHC is being disposed as per CPCB Guidelines.
- Waste generated from Canteen is used from preparing bio-compost & it is used for plantation.
- For the collection of dry fly ash, silos have been provided with pneumatic system & Bottom ash is led to the Ash dyke through pipeline in wet slurry mode.
- 1.865 Ton E Waste has been disposed through CPCB/JSPCB authorized recyclers.

2) Liquid Hazardous waste:

- In this financial year, 5.016 KL (Used Oil) & 1.671 KL Waste Oil have been generated from process and disposed to authorized recycler as per norms of MoEF.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources and on the production.

The following practices are adopted for the pollution control & conservation of natural resources:

- We are using effluent water generated from Cooling tower, DM plant, IBD tank for Ash handling system instead of fresh water from River Subarnarekha.
- Extensive tree plantation is under progress as a part of green belt development, which will control the impact of Air pollution and optimize the ambient temperature of surrounding areas.
- Twin flue stack with height of 275 m are provided as per the CPCB guidelines for better dispersion of emissions and keep the concentrations within JSPCB/CPCB specified standards.
- High efficiency Electrostatic precipitators (ESPs) are provided for control of dust emissions into flue gases.
- Dust suppression system is installed at Truck tipping area.
- Dust Extraction system along with bag Filters have been installed at Coal Silo, Coal bunker, Intermediate Silo & Ash Silo to arrest the fugitive emissions.
- Roof sheeting and side cladding in conveyor galleries and TPs are installed to control fugitive dust

- The plant is designed on COC of more than 5 which is helpful in water conservation which further lead to reduction in overall fresh water intake.
 - Garland drain connected with coal settling pit are installed in the Coal Stockyards for the reutilize of coal containing water.
 - Mist canyons are installed around the coal stock yard for the control of fugitive dust.
 - Belt washing system, coal settling pits and waste water recovery system are installed at transfer house for the dust suppression and water recovery.
 - Water spraying system is installed in ash pond area for controlling the ash fugitive emissions, if any.
 - Effluent Treatment Plant (ETP) and Sewage Treatment Plants (STP) are installed to control water pollution.
 - Rain Water harvesting is being practiced in the plant premises, which helps in ground water recharging.
 - Good housekeeping is maintained within the plant premises.
- Because of the adaptation of aforementioned methods, the quality of emissions and discharges are maintained below the permissible limits prescribed by the MoEF&CC / CPCB / JSPCB.

PART - H

Additional measures / investment proposals for environmental protection including abatement of prevention of pollution.

- APNRL is regularly monitoring ambient air, stack, noise level, water quality and soil quality in and around the plant premises. All the emissions and discharges are meeting the permissible limits prescribed by MoEF / CPCB / JSPCB. It is proposed to further strengthen the monitoring and reporting process.
- Ash Water Recovery System is installed for further reuse of ash water. Green belt development within plant premises is proposed to be accelerated.
- As per New Environment Norms, we are in process to install FGD system & DeNOx system for reducing level of SO₂ and Oxide of Nitrogen in Flue gases.

PART – I

Any other particulars for improving the quality of the environment:

The part – I of any Environmental Statement report is perhaps the best scale to measure various parameters of the plans, target, achievements and ultimate impact. APNRL has made sincere efforts to visualize the general environmental scenario and implemented plan for the associated improvements. Some highlights are mentioned below:

1. Received certification for ISO 9001:2008, ISO 14001: 2004 & ISO 18001:2007 from BSI.
2. Training on EMS to all employees and contract labors to create Environment awareness.

3. Green Belt development is under progress.
4. Only PUC certified vehicles are engaged.
5. Monitoring of Ambient air quality, Surface and ground water quality, stack monitoring, soil, Noise level is being done through MoEF & NABL accredited laboratory.
6. Full-fledged Environmental laboratory has been installed.
7. Installation of Online Effluent monitoring system has been completed.
8. Webhosting of online environment data on CPCB/SPCB website have been completed.
9. Electronics Display board is provided at the main gate for public data display.
10. Audit by recognized organization i.e. ERM has been conducted to improve Environmental & Social Management system (EMS).
11. Celebration of Environmental promotional activities (Environment day, Earth Day, Water day, Ozone day).
12. Remote calibration facility of CEMS has been completed.
13. 200 no Solar light system has been installed in plant premises.

Date: 19/09/2023



Signature : 
Name : Kamlesh Kumar
Designation : Sr. Manager- Environment
Address : Adhunik Power & Natural Resources
Limited, Village : Padampur
Dist: Saraikela-Kharsawan –
832 402. Jharkhand



Institute for Environmental Management

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National Accreditation Board for Testing Laboratory (NABL) vide TC-11515
Certified By ISO 9001:2015 (QMS) & ISO 45001:2018



Test Report

ULR No.:	T	C	1	1	5	1	5	2	3	0	0	0	0	0	0	0	4	6	
Discipline:	Chemical		Group: Pollution & Environment										Sub-Group: Waste Water						
Report Issue Date:	31-03-2023										Test Report No.: RN-230320001WW01								
Sample ID:	230330PE01001										Sample Description: Waste Water (STP)								
Challan No./P.O. No.:	3030006457										Challan Date/P.O. Date.: 06-12-2022								
Issued to:	ADHUNIK POWER & NATURAL RESOURCES LTD. VILL PADMPUR, PGCILS/S, KANDRA-832402																		
Type of Industry:	Power Plant										Customer Representative: Kamlesh Jha								
Sample Drawn by:	IEM Team										Sampling Date: 28-03-2023								
Protocol:	CPCB Guideline & IS Method 3025 Part-01																		
Sampling Location:	STP Outlet																		
Field Meteorological Information	A. Temp. (°C): 28					R.H. (%): 61					W.C.: Clear					W.D.: NE - SW			
Sample Receiving date:	29-03-2023					Testing Started: 29-03-2023					Testing Ended: 31-03-2023								

Test Result

Sl. No.	Tested Parameters	Unit	Method No.	Limits	Results
1.	pH value at 25°C	---	IS 3025 (Part-11)	5.5 to 9.0	6.96
2.	Total Suspended Solids (TSS)	mg/l	IS 3025 (Part-17)	100	11.0
3.	Biochemical Oxygen Demand (BOD)	mg/l	IS 3025 (Part-44)	30	5.4
4.	Chemical Oxygen Demand (COD)	mg/l	IS 3025 (Part-58)	250	8.0

End of Report

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65± 5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Limit is Specified	As per the Environmental (Protection) Rule - 1986
Remark	Sample Comply with prescribed specification.

Tested By: Purnya Harsit Dadei

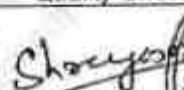
Sample Drawn By: Rahul Kumar Singh & Team

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On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.

Quality Checked Environmental Authorized Signatory


(Shreya Singh)
Dy. Quality Manager


Dr. S. C. Jain
Director

Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001

Laboratory Site - H.No. - A-13, Saket Vihar, Near Sohrai Bhuwan, Harmu Housing Colony,
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Test Report

ULR No.:	T	C	1	1	5	1	5	2	3	0	0	0	0	0	0	4	7	
Discipline: Chemical	Group: Pollution & Environment										Sub-Group: Waste Water							
Report Issue Date: 31-03-2023										Test Report No.: RN-230320001WW02								
Sample ID: 230330PE02001										Sample Description: Waste Water (ETP)								
Challan No./P.O. No.: 3030006457										Challan Date/P.O. Date.: 06-12-2022								
Issued to: ADHUNIK POWER & NATURAL RESOURCES LTD. VILL PADMPUR, PGCILS/S, KANDRA-832402																		
Type of Industry: Power Plant										Customer Representative: Kamlesh Jha								
Sample Drawn by: IEM Team										Sampling Date: 28-03-2023								
Protocol: CPCB Guideline & IS Method 3025 Part-01																		
Sampling Location: ETP Outlet																		
Field Meteorological Information										A. Temp.(°C): 28		R.H. (%): 61		W.C.: Clear		W.D.: NE - SW		
Sample Receiving date: 29-03-2023						Testing Started: 29-03-2023						Testing Ended: 31-03-2023						

---Test Result---

Sl. No.	Tested Parameters	Unit	Method No.	Limits	Results
1.	pH value at 25°C	---	IS 3025 (Part-11)	5.5 to 9.0	7.69
2.	Total Suspended Solids (TSS)	mg/l	IS 3025 (Part-17)	100	26.0
3.	Chemical Oxygen Demand (COD)	mg/l	IS 3025 (Part-58)	250	12.0
4.	Phosphate (as PO ₄)	mg/l	IS: 3025(Part-31)	--	0.58
5.	Copper	mg/l	APHA 3111 B.2017	--	BDL (MDL - 0.2)
6.	Chromium	mg/l	APHA 3111 B.2017	--	BDL (MDL - 0.04)
7.	Zinc	mg/l	APHA 3111 B.2017	--	BDL (MDL - 0.04)

---End of Report---

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Limit is Specified	As per the Environmental (Protection) Rule - 1986
Remark	Sample Comply with prescribed specification.

Tested By: Punya Harsit Dadel

Sample Drawn By: Rahul Kumar Singh & Team

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Quality Checked by Authorized Signatory

Shreyasora
(Shreya Sonar) (Dr. S. C. Jain)
Dy. Quality Manager Director

Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001

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ISO 45001:2018 (Occupational Health & Safety Management System)

Test Report

Discipline: Chemical	Group: Pollution & Environment	Sub-Group: Waste Water
Report Issue Date: 31-03-2023	Test Report No.: RN-230320001WW02	
Sample ID: 230330PE02001	Sample Description: Waste Water (ETP)	
Challan No./P.O. No.: 3030006457	Challan Date/P.O. Date.: 06-12-2022	
Issued to: ADHUNIK POWER & NATURAL RESOURCES LTD. VILL PADMPUR, PGCILS/S, KANDRA-832402		
Type of Industry: Power Plant	Customer Representative: Kamlesh Jha	
Sample Drawn by: IEM Team	Sampling Date: 28-03-2023	
Protocol: CPCB Guideline& IS Method 3025 Part-01		
Sampling Location: ETP Outlet		
Field Meteorological Information	A. Temp.(°C): 28	R.H. (%): 61
	W.C.: Clear	W.D.: NE - SW
Sample Receiving date: 29-03-2023	Testing Started: 29-03-2023	Testing Ended: 31-03-2023

---Test Result---

Sl. No.	Tested Parameters	Unit	Method No.	Limits	Results
1.	Oil & Grease	mg/l	IS 3025 (Part-39)	10	BDL (MDL - 4.0)
2.	Iron	mg/l	APHA 3111 B.2017	3.0	0.96
3.	Temperature	mg/l	IS 3025 (Part-29)	--	28

---End of Report---

Env. Condition of Lab.	Laboratory is maintaining Temperature $27 \pm 2^\circ\text{C}$ and Relative Humidity $65 \pm 5\%$ in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit.
Limit is Specified	As per the Environmental (Protection) Rule - 1986
Remark	Sample Comply with prescribed specification.

Tested By: Punya Harsit Dadel

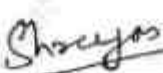
Sample Drawn By: Rahul Kumar Singh & Team

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Quality Checked by _____ Authorized Signatory

(Shreya Soni) (S. C. Jain)

Dy. Quality Manager * Randi * Director



Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001

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ISO 9001:2015

ISO 45001:2018



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National Accreditation Board for Testing Laboratory (NABL) vide TC-11515
Certified By ISO 9001:2015 (QMS) & ISO 45001:2018



Test Report

ULR No.:	T	C	1	1	5	1	5	2	3	0	0	0	0	0	0	4	3			
Discipline:	Chemical					Group: Atmospheric Pollution					Sub-Group: Stack Emission									
Report Issue Date:	31-03-2023										Test Report No.: RN-230320001S2									
Sample ID:	230330AP05002										Sample Description: Stack Emission									
Challan No./P.O. No.:	3030006457										Challan Date/P.O. Date.: 06-12-2022									
Issued to: ADHUNIK POWER & NATURAL RESOURCES LTD. VILL PADMPUR, PGCILS/S, KANDRA-832402																				
Type of Industry: Power Plant										Customer Representative: Kamlesh Jha										
Sample Drawn by: IEM Team										Sampling Date: 12-03-2023										
Protocol: CPCB Guideline (LATS/80/2013-14) & IS Method 11255 Series																				
Field Meteorological Information					A. Temp.(°C): 27				R.H. (%): 64				W.C.: Clear				W.D.: NE - SW			
Sample Receiving Date: 29-03-2023						Testing Started: 29-03-2023						Testing Ended: 31-03-2023								

General Physical Information

Stack Identification	Single	Stack Height from Ground Level (m)	275
Emission Due to	Boiler	Port Hole Height from Ground Level (m)	90
Plat Form	Permanent	Inner Dimension of Stack (m)	4.2
Stack Description	Stack Unit - 2	Type of Fuel Used	Coal
Shape of Stack	Circular	Quantity of Fuel	----
Construction Material	Metal	Production Capacity	----
Sampling Port	Available	Pollution Control Device (if any)	ESP

Test Result

Sl. No.	Parameters	Test Methods	Unit	Result	Limits
1.	Flue Gas Temperature	IS 11255 (Part-3)	°K	387	---
2.	Flue Gas Velocity	IS 11255 (Part-3)	m/s	24.2	---
3.	Flue Gas Volumetric Flow Rate	IS 11255 (Part-3)	Nm ³ /hr.	917882.8	---
4.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	36.55	50
5.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm ³	1275.1	600
6.	Oxides of Nitrogen (NO _x)	IS 11255 (Part-7)	mg/Nm ³	697.59	450
7.	Carbon Monoxide (CO)	IS 13270:1992	%	BDL(MDL-0.2)	---

Dust	Kg/hr	33.55
Sulphur Dioxide	Kg/hr	1170.39
Oxide of Nitrogen	Kg/hr	640.31

---End of Report---

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65± 5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit; BDL: Below Detection Limit
Limit is Specified	---
Remark	---

Tested By: Akanksha Sourabh
Sample Drawn By: Rahul Kr. Singh & team

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Quality Checked by _____ Authorized Signatory

Shreyas
(Shreyas Sonar) S. C. Jain
Dy. Quality Manager Director

Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001

Laboratory Site - HLNo. - A-13, Saket Vihar, Near Sohrai Bhaiyan, Harmu Housing Colony,
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Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com



Institute for Environmental Management



Accredited by: Jharkhand State Pollution Control Board, JSPCB
 Certified by: ISO 9001:2015 (Quality Management System)
 ISO 45001:2018 (Occupational Health & Safety Management System)

Test Report

Discipline: Chemical		Group: Atmospheric Pollution		Sub-Group: Stack Emission	
Report Issue Date: 31-03-2023			Test Report No.: RN-230320001S2		
Sample ID: 230330AP05002			Sample Description: Stack Emission		
Challan No./P.O. No.: 3030006457			Challan Date/P.O. Date.: 06-12-2022		
Issued to: ADHUNIK POWER & NATURAL RESOURCES LTD. VILL PADMPUR, PGCILS/S, KANDRA-832402					
Type of Industry: Power Plant			Customer Representative: Kamlesh Jha		
Sample Drawn by: IEM Team			Sampling Date: 12-03-2023		
Protocol: CPCB Guideline (LATS/80/2013-14) & IS Method 11255 Series					
Field Meteorological Information		A. Temp.(°C): 27		R.H. (%): 64	
		W.C.: Clear		W.D.: NE - SW	
Sample Receiving Date: 29-03-2023		Testing Started: 29-03-2023		Testing Ended: 31-03-2023	

General Physical Information

Stack Identification	Single	Stack Height from Ground Level (m)	275
Emission Due to	Boiler	Port Hole Height from Ground Level (m)	90
Plat Form	Permanent	Inner Dimension of Stack (m)	4.2
Stack Description	Stack Unit - 2	Type of Fuel Used	Coal
Shape of Stack	Circular	Quantity of Fuel	----
Construction Material	Metal	Production Capacity	----
Sampling Port	Available	Pollution Control Device (if any)	ESP

Test Result

Sl. No.	Parameters	Test Methods	Unit	Result	Limits
1.	Flue Gas Temperature	IS 11255 (Part-3)	°K	387	---
2.	Flue Gas Velocity	IS 11255 (Part-3)	m/s	24.2	---
3.	Flue Gas Volumetric Flow Rate	IS 11255 (Part-3)	Nm ³ /hr.	917882.8	---
4.	Mercury (Hg)	(LATS/80/2013-2014)	mg/Nm ³	BDL (MDL-0.03)	0.03

---End of Report---

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Limit is Specified	---
Remark	---

Tested By: Akanksha Sourabh

Sample Drawn By: Rahul Kr. Singh & team

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On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.

Quality Checked by: _____ Authorized Signatory

Shreya Sonal
 (Shreya Sonal)
 Dy. Quality Manager
 S. C. Jain
 Director



Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001

Laboratory Site - H.No. - A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony,
 Ranchi-834002, Jharkhand, India

Ph - 8407804254, 8407804251, Email - iem2012@rediffmail.com



ISO 45001:2018



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/281123/02

Dated: 28.11.2023

To,

Regional Office (ECZ),
Ministry of Environment, Forest and Climate Change,
2nd Floor, Jharkhand State Housing Board (HQ)
Harmu Chowk, Ranchi, Jharkhand-834002

Sub:- Submission of Half yearly compliance status report (Unit II) for the period – April 2023 to September 2023 -Reg.

Ref:- MoEF EC letter No.J-13012/8/2009-IA.II(T), Dated 09th May 2011.

Sir,

With reference to the above referred Environmental Clearance, we are pleased to submit herewith the half yearly compliance status report (Unit II) for the period of April 2023 to September 2023.

This is for your reference and record, please.

Thanking you,

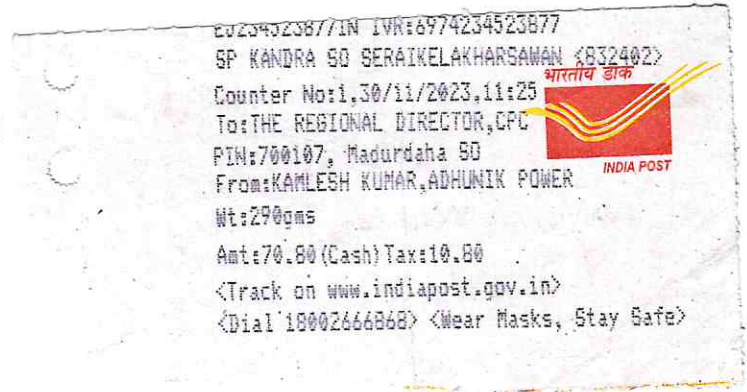
For Adhunik Power & Natural resources Limited

(Authorized Signatory)

Encl: As Above

Copy to:

1. Central Pollution Control Board, Kolkata
2. Member Secretary, Jharkhand State Pollution Control Board, Jharkhand



CORPORATE OFFICE : "LANSLOWNE 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