



ADHUNIK POWER & NATURAL RESOURCES LTD.

(Formerly Adhunik Thermal Energy Limited)

Office : Village Padampur, Behind PGCIL Substation, Adityapur, Kandra Road, P.O: Kandra
Saraikela-Kharsawan, Jharkhand-832 402 ☎ PHONE : 0657 6628400 ☎ FAX : 0657 6628440

Website : www.adhunikgroup.com

Ref: MOE&F, RNC/HYC/KKJ/231220/01

Dated: 23.12.2020

To,

Regional Office (ECZ),
Ministry of Environment, Forest and Climate Change,
Bungalow No. A-2, Shyamali Colony,
Ranchi - 834002

Sub:- Submission of Half yearly compliance status report (Unit I) for the period - April 2020 to September 2020 -Reg.

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

Sir,

With reference to the above referred Environmental Clearance, we are pleased to submit herewith the half yearly compliance status report (Unit I) for the period of April 2020 to September 2020.

This is for your reference and record, please.

Thanking you,

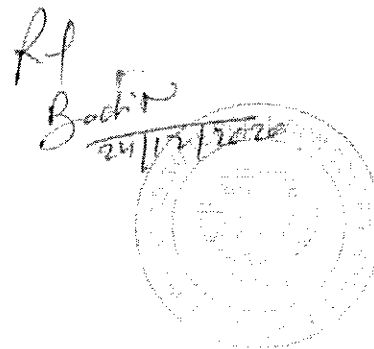
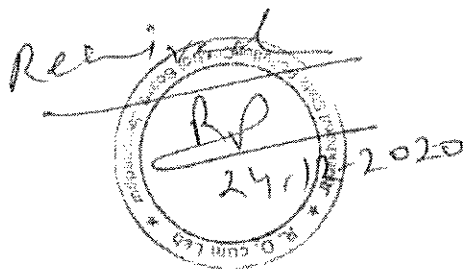
For Adhunik Power & Natural resources Limited

(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



Regd. Office : 14, Netaji Subhas Road, II-Floor, Kolkata - 700 001. Phone : 2243-4355, 2242-8551

Works: Padampur, Saraikela, Kharsawan, Jharkhand

CIN U40101WB2005PLC102935

REPORT

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



APRIL 2020 – SEPTEMBER 2020

**Adhunik Power & Natural Resources Limited
Village: Padampur, Behind PGCIL Substation
Kandra Chouka Road, Saraikela-Kharsawan
Jharkhand**

Adhunik Power & Natural Resources Limited Vill: Padampur, Behind PGCIL Substation, Kandra Chouka Road, Saraikela-Kharsawan, Jharkhand		
Environmental Clearance Letter No: J-13011/8/2009-IA.II(T), dated 29th Aug 2009.		
Period Of Compliances: April 2020 to September 2020		
Sl No	EC Conditions	Status as on 30st September 2020
1	No additional land in excess of 119 ha shall be acquired for any activity/facility of this project.	Total Land acquired for Unit I is well within the land mentioned in Environment Clearance.
2	EC is subject to obtaining clearance under the Wildlife Protection Act, 1972 from the competent authority	WLMP Prepared and approval has been obtained from PCCF. Complied
3	EC is subject to final order of the Hon'ble Supreme court of India in the matter of Goa foundation Vs Union of India in Writ. Petition (Civil) no. 460 of 2004 as may be applicable to this project.	Not applicable.
4	Project proponent should contribute @ Rs. 20000/ha for project area as proportionate cost to the regional Wildlife Conservation plan and a copy of the plan should be submitted to the ministry.	As in Sl. No. 2 the Wild Life Management Plan (WLMP) prepared has already been approved by PCCF, Ranchi on May'10.2010. 1 st installment already submitted. Complied
5	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.45 % and 46 % respectively at any given time. In case of variation of coal quality at the time of issuance of LOA, a fresh reference shall be made to MoEF for suitable amendment to EC condition wherever necessary	The sulphur and ash content in used coal conforms the limits.
6	A single stack of 220 m height shall be provided with continuous online monitoring equipment's for Sox, Nox and PM. Exit velocity of flue gases shall not be less than 25 m/sec. Hg emission from stack may also be monitored on periodic basis.	Twin flue chimney of 275m height has constructed for proper dispersion of gases. Online monitoring equipment has installed in chimney. Photographs with details of CEMS enclosed as Annexure I
		Hg concentration in flue gases is well within prescribed limits.
7	High efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emissions does not exceed 50 mg/Nm ³	High efficient ESPs of 32 fields has been installed to ensure control Particulate matter emission in flue gas. Stack monitoring report for the month of September 2020 enclosed as Annexure II.
8	Adequate dust extraction system such as cyclones/bag filters and water spray in dusty areas such as in coal handling and ash handling points, transfer area and other vulnerable dusty areas shall be provided.	Necessary mitigation measures in accordance with EMP and EC conditions has taken to control fugitive emissions from ash storage/transfer and coal handling plant such as installation and operation of bag filters collectors, use of water spray systems and enclosed conveyors with well designed, extraction and filtration equipment on transfer points. Photographs Attached as Annexure III.
9	Fly ash shall be collected in dry form and storage facility (Silos) shall be provided. 100 % fly ash utilization shall be ensured from 4th year onwards. Unutilized ash shall be disposed off in the ash pond in the form of slurry form. Mercury and other heavy metals (As, Hg, Cr, Pb etc.) will be monitored in the	Agreements made with cement plants, brick plants etc to ensure 100% utilization of fly ash from 4th year onwards. Fly Ash generation & Utilization report (April 2020-September 2020) are enclosed as Annexure IV. Monitoring of mercury and other heavy metals (As, Hg, Cr, Pd etc.) in the bottom ash and also in the effluents emanating from the ash

	bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed off in low lying area.	pond is being done periodically. Bottom ash analysis report & effluent analysis report of ash pond for the month of September 2020 enclosed as Annexure V & Annexure VI respectively.
10	Ash pond shall be lined with impervious lining. Adequate safety measures shall be implemented to protect the ash dyke from getting breached.	Complied
11	Closed cycling cooling system with cooling towers shall be provided. The effluents shall be treated as per the prescribed norms.	The project design involves closed cycle cooling systems with induce draft cooling towers. The effluent generated from process operation is being treated in a Guard pond to ensure conformance to CPCB standards and recycled in plant process. Treated effluent analysis report of Guard pond for the month of September 2020 enclosed as Annexure VII.
12	No ground water shall be extracted for project work at any stage.	We adhere.
13	Natural drainage system within the project site should not be disturbed.	Natural drainage system has not been disturbed.
14	The treated effluents conforming to the prescribed standards shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon. Arrangements shall be made that effluents and storm water do not get mixed.	The project is designed with zero discharge provisions and there is separate arrangement for storm water and effluent water. Complied
15	A sewage treatment plant shall be provided and the treated sewage shall be used for raising green belt /plantation.	STP 60 KI capacity (03 No) has installed within plant premises to treat sewage waste. Photographs enclosed as Annexure VIII.
16	Rainwater harvesting should be adopted CGWA shall be consulted for finalization of appropriate rain water technology within a period of three months from the date of clearance and details shall be furnished	The Rain water harvesting report has submitted and approved from CGWA Ranchi. 13 No Rain water harvesting system has been constructed in accordance with the approved rain water harvesting plan.
17	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires of coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to RO of the Ministry at Bhubaneswar.	The design of coal yard along with provision of fire safety measures viz. fire hydrants, water sprinklers has installed and submitted to the Ministry. Complied
18	Storage facilities of auxiliary liquid fuel such as LDO and HFO/LSHS shall be made in the plant area in consultation with dept. Of Explosive, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5 %. DMP shall be prepared to meet any eventuality in case of an accident taking place due to storage oil.	Approval received on dated 15/12/2011. License No. P/HQ/JH/15/1065 (P257355), valid upto 31 st Dec 2022 for LDO storage installation (under Petroleum Class "C") for operations. Copy of Approval are enclosed as Annexure IX. We are using Sulphur content in the liquid fuel within prescribed limit. Copy of Test report are enclosed as Annexure X.
19	Regular monitoring of ground water in and around to ash pond area including heavy metals (Hg, Cr, As, Pb) shall be carried out, records maintained and six monthly report shall be furnished to RO of ministry. The	Regular monitoring of ground water in and around ash pond area including heavy metals is being carried out. Ground water analysis report of upstream & downstream of ash pond compared with baseline data for the month of September

	data so obtained should be compared with the base line data so as to ensure that the ground water quality is not adversely affected due to the project.	2020 enclosed as Annexure XI.
20	A green belt of adequate width and density shall be developed around the plant periphery covering 1/3 of the project area preferably with local species.	A thick green belt of adequate width is being developed. 68123 nos. (Area covered-30.9 Hac) of plantation has been completed in and outside along the periphery of the power plant to arrest any dust emissions and help in attenuation of noise till March 2020. Survival rate of sapling is 85.5%. Total Survived plants are 58245. Plantation done April 2020 to September 2020 is 1523 samplings. Name of Plant Species- Neem, , Seesam, Mango, Jamun etc.
21	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Plant is under operation however A first aid center comprising of competent medical staff (6 no's) and equipped with necessary medical facilities is made available onsite to provide emergency medical aid to both contract workers and company staff.
22	Noise level emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 75 dBA. For people working in the high noise area, requisite PPE like ear plug/ear muff etc shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non-noisy/less noisy areas.	Adequate measures has implemented in consistent with the EMP to control turbine noise levels within stipulated limits. This include installing of sufficient engineering control in turbines as per design specifications, provision of ear plugs/ear muffs for workers exposed to high noise, rotation of workers and carrying out periodic audiometric testing of workers and records is being maintained. Noise level monitoring report for the month of September 2020 As Annexure XII.
23	Regular monitoring of ground level concentration of SO ₂ , NO _x , RSPM and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to RO of ministry. The data shall also be put on the website of the company.	Monitoring of Air quality is being conducted by APNRL on monthly basis. Review of air quality monitoring results revealed compliance to NAAQS. Ambient Air monitoring reports for the month of September 2020 is enclosed as Annexure XIII.
24	Provision shall be made for the housing of construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care crèche etc, The housing may be in the form of temporary structure to be removed after the completion of the project.	Plant is in operational condition and local labors are coming from nearby villages.
25	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded EC and copies of clearance letter	Complied.

	are available with the SPCB/committee and may also be seen at Website of the MoEF at http://envfor.nic.in .	
26	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat Zila Praised/Municipal Corporation, urban local body and the local NGO, is any from whom suggestion/representation, if any were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Complied.
27	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	A Environmental Management Cell is being operational onsite to ensure effective implementation of specific EMPs. Organization chart of Environmental Management Cell enclosed as Annexure XIV.
28	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the RO of MoEF the respective zonal office of CPCB and the SPCB the criteria pollutant level namely SPM, RSPM, SO ₂ , NO _x (ambient level as stack emission) shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	The updated compliance status of the stipulated EC conditions along with monitored data has been displayed at the company website. The monitoring data (SPM, RSPM, SO ₂ , NO _x) for both ambient air quality and chimney emissions is being displayed at the main gate of the company. Status of compliance of the stipulated EC conditions has been uploaded on company website for the period of October 2019 to March 2020.
29	The project proponent shall also submit six monthly report on the status of compliance of the stipulated condition including result of monitored data (both in hard copy as well by email) to the respective RO of MoEF, the respective zonal office of CPCB and the SPCB.	Last six monthly reports (October 2019 to March 2020) for the project along with environmental monitoring data submitted to MoEF RO at Ranchi vide letter No MOE&F,RNC/HYC/RA/24620/01 dated 24 th June 2020 . Acknowledgement copy of same enclosed as Annexure XV.
30	The environmental statement for each financial year ending 31st March in form-V as is mandated to be submitted by the project proponent to the concern SBCB as prescribed under the Environment Protection Rules, 1986 as amended subsequently shall also be put on the website of the company along with the status of the compliance of EC condition and shall also be sent to the respective RO of MoEF by email.	The last environmental statement for financial year (2019-2020) in Form V has submitted vide E-mail dated 25 th Sep 2020. Acknowledgement copy of same enclosed as Annexure XVI. Environment Statement (2019-20) has been uploaded on company website.
31	RO of the MoEF located at Bhubaneswar will monitor the implementation of the stipulated conditions. A complete set-up of documents including EIA report EMP along with the additional information submitted from time to time shall be forwarded to the RO for their use during monitoring. Project proponent will upload the compliance status their website and update the same from	The updated compliance status of the stipulated EC conditions along with monitored data has been displayed at the company website. The monitoring data (SPM, RSPM, SO ₂ , NO _x) for both ambient air quality and chimney emissions is being displayed at the main gate of the company. However Half yearly progress report is being sent to RO office, Ranchi on regular basis as per the requirement & uploaded on company website.

	time to time at least six monthly basis. Criteria pollutant level (Stack and ambient level of NOx) will be displayed at the main gate of the power plant.	
32	Separate fund shall be allocated for implementation of environmental protection measures along with item wise break up this cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year wise expenditure should be reported to the ministry.	Adequate budgetary provision has been made by the APNRL for execution of environmental management plan. Year wise (2020-21) expenditure on Environment measures shall be submitted with closing of financial year.
33	The project authorities shall inform the RO as well as the ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work and commissioning of plant.	Complied
34	Full cooperation shall be extended to the Scientists/officers from the ministry / RO of the ministry at Bhubaneswar/the CPCB/the SPCB who would be monitoring the compliance of environmental status.	We ensure.

Acknowledgement of submission of compliance information



Central Pollution Control Board,
Parivesh Bhawan, East Arjun Nagar,
Delhi 110032, India

Details submitted by **Kamlesh Kumar** for **Adhunik Power & Natural Resources Limited** falling under 17 categories or GPI units under Ganga Basin of Industries on **04 Nov 2015 at 02:39 hrs**
on CPCB Portal www.cpcb.nic.in/17catindustriesinfo

Industry Code	-
Industry Category	Power Plant
Falling under Ganga Basin	No
Industry Name	Adhunik Power & Natural Resources Limited
Address	Vill- Padampur, Behind of PGCIL Sub station , Adityapur-Kandra Road, Dist- Saraeikela-Kharswan, Kandra, Jharkhand-832402
Name of Regional Office, SPCB	Jharkhand State pollution Control Board, Jamshedpur
Online Emission Monitoring System provided	Yes
Online Effluent Monitoring System provided	Yes
Online Data submitted to CPCB	No

Online Data submitted to SPCB

No

Industry Registered By

Name

Email

Mobile

Kamlesh Kumar

kamleshkrjha@adhunikgroup.co.in

7763818994

Industry's Representatives

Name

Email

Mobile

Landline

Plant/Process

Kamlesh Kumar

kamleshkrjha@adhunikgroup.co.in

7763818994

06576628414

Environment

Bank Guarantee

Yes

Amount

Validity

Bank Name

Branch

Reference Number

Issue date

500000

31/03/2016

State Bank of India

CAG Kolkata

0999815BG0000330

16/06/2015

Monitoring system attached to	Type of Monitoring System	Processes Attached	Monitoring System Details						
CETP1	Effluent	CBD,CTBD,N Pit	Parameter	Device Id	Device Make	Device Vendor	Device Model	System Certified	Certification
			Others	TEM_ETP_1	Thermal Instrument	SWAN Environmental	RDS	YES	USEPA
			pH	pH_ETP_1	Daeyoon Scale Industrial	SWAN Environmental	DWA3000B	YES	USEPA

Co. Ltd.,

TSS

TSS_ETP_1

Daeyoon
Scale
Industrial
Co. Ltd.,SWAN
Environmental

TCSS200N

YES

USEPA

Stack 1

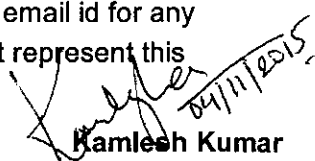
Emission

ESP (Unit II)
ESP (Unit I)

Parameter	Device Id	Device Make	Device Vendor	Device Model	System Certified	Certification
Others	NOX_AS_2	Codel	Forbemarshall	GCEM40A0	YES	MCERT
SO2	SOX_AS_1	Codel	Forbemarshall	GCEM40A0	YES	MCERT
Others	NOX_AS_1	Codel	Forbemarshall	GCEM40A0	YES	MCERT
SO2	SOX_AS_2	Codel	Forbemarshall	GCEM40A0	YES	MCERT
PM	SPM_AS_2	Codel	Forbemarshall	DCEM2100	YES	MCERT
PM	SPM_AS_1	Codel	Forbemarshall	DCEM2100	YES	MCERT

Declaration:

I **Kamlesh Kumar** hereby declare that I am the representative of **Adhunik Power & Natural Resources Limited** and I have registered my email id for any communication with CPCB with respect to any pollution control measures or administrative issues. I shall withdraw this registration if I do not represent this industry any more. I will furnish the correct information to the best of my knowledge.



Kamlesh Kumar

For Adhunik Power & Natural Resources Limited

Kindly send this acknowledgement along with other relevant documents to CPCB.



CODEL

REF: DCEM2100/DS/02

DATA SHEET DCEM2100 DUST MONITOR

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

Ref: GC40A0/DS/02

DATA SHEET			
CO, SO ₂ , NO _x GAS ANALYSER			
GENERAL			
1.	Make	CODEL International Ltd, UK	
2.	Model/Article No	GCEM4000 Series Article no GCEM40A0	
3.	Type	Infrared Absorption Analyser-In-Situ type	
4.	Qty	2 No.	
5.	Tag No.	SO _x	HNE10CQ004
		NO _x	HNE10CQ001
		CO	HNE10CQ002
FEATURES			
6.	Range	CO : 0 to 1000ppm, 0 to 1000mg/m ³ , 0 to 1000mg/Nm ³ SO ₂ : 0 to 1000ppm, 0 to 1000mg/m ³ , 0 to 1000mg/Nm ³ , NO _x : 0 to 1000ppm, 0 to 1000mg/m ³ , 0 to 1000mg/Nm ³ , CO ₂ : 0 to 25% H ₂ O : 0 to 25% Above ranges are site selectable up to 3000 ppm	
7.	Min. detectable conc.	1 ppm, 1mg/m ³ , 1mg/Nm ³ for CO,SO ₂ ,NO _x & 0.5% for CO ₂ ,H ₂ O.	
8.	Measurement Units	Fully selectable units-ppm or % by volume, mg/m ³ (measured) and mg/Nm ³ (Normalised to temperature, pressure, H ₂ O & CO ₂)	
9.	Measurement averaging	Fully selectable in range 10Sec to 1 hour	
10.	Response time (T ₉₀)	Detector less than 10 seconds, Calibration less than 200 seconds.	
11.	Auto & manual calibration	In built and selectable	
12.	Function	Continuous function	
13.	Accuracy	+/- 2% of measured value for CO,SO ₂ , NO _x ,& 0.5% for CO ₂ & H ₂ O	
14.	Zero /span drift(24hrs)	Over all drift less than +/-2% per month	
15.	Repeatability	Less than 2% of span	
16.	Sensitivity	1 ppm for CO,SO ₂ ,NO _x , 0.5% for CO ₂ ,H ₂ O	
17.	Linearity	Less than 2%	
18.	LCD Display	LCD with back light	
19.	Power supply	240VAC, 50-60Hz, +/-10% 400VA	
20.	Outputs	Analog : 5 x 4-20 mA isolated, max. 500 Ohms, full configurable from Keypad for CO,SO ₂ ,NO _x in ppm & CO ₂ ,H ₂ O in % to DCS fully site configurable. Logic: 5 x Volt free contacts, SPCCO rated at 50 volt 1A & 1x data invalid output (System fault)	
21.	Serial Communications	RS232/RS485 Modbus O/P	
22.	Construction material and Enclosures	Electronic Housings (DDU) : Corrosion resistant, epoxy coated Aluminium housing sealed to IP 66 Probe : SS316L	
DESIGN CONDITIONS			
23.	Infrared source	Heater cartridge assembly	
24.	Infrared detector	Lead selenid detector	
25.	Ambient air temp.	Transceiver unit 0 to 70 °C, Electronic unit (PSU & DDU) 0 to 60 °C	
26.	Flue gas temp.	Up to 350 deg.C	

CONNECTIONS & DIMENSIONS		
27	Analyser mounting details	Please refer drawing for analyser mounting flange details. Mounting location on Chimney at 91 Mtrs Elevation.
28	Stack width	Suitable for duct/Stack inner diameter of more than 2000mm.
ACCESSORIES		
29	Standard span gas for calibration	Make : Chemtron Science Laboratory, Mumbai Material : Aluminium Cylinder Capacity : 10 ltr W.C Filled with : 500ppm CO, 500ppm SO ₂ , 500ppm NO and balance Nitrogen (N ₂) Cylinder with SS regulator, necessary tubing's & fittings. Filled pressure: filled at 120-130kg/cm ²
30	Zero Calibration	For zero calibration we use plant compressed air.
31	Air dryer unit	Maximum Pressure : 10 bar Maximum temperature : 57 deg.C Air dryer unit to dry down the compressed air to -20 deg.c.
32	Zero/span gas calibration tubes	For zero calibration, client to provide plant instrument air line up to probe (10 mm OD connection) For span gas calibration, 20 mtr length SS tube of 10mm OD with necessary fittings from Cylinder to probe.
33	Pressure transmitter	Mounted on GCENM40A0 probe Make : Druck Range : 1 .6bar absolute with 4-20mA output Input supply : 24VDC operated
34	Temperature transmitter	Mounted on GCENM40A0 probe Make : Peak Sensor Limited, Washington Type: K type thermocouple Range : 0 – 600 deg.C with 4-20mA output Input supply : 24VDC operated
35	Plant instrument air Consumption	5 LPM @3 bar pressure continuous 10LPM @3 bar pressure during zero calibration



Adhunik Power & Natural Resources Ltd.

Vil-Padampur, PCCL/S/S,Kandra - 832402
Phone & Fax : 0657-6628400 6628440

VENDOR CODE : 24926

PURCHASE ORDER ASSET

SWAN ENVIRONMENTAL PVT LTD SWAMI AYYAPPA CO-OP SOCIETY PLOT 922& 935, MADHAPUR HYDERABAD PIN- 500081 TEL -040 40216358 FAX- 040-40216184				Purchase Order No. & Date : 4300000360 & 13.06.2015 Quotation No. & Date : Other Ref. :			
SUPPLIERS CONTACT :				PLEASE RETURN TO Contact Person : GENERAL PURCHASE Phone : 0657-6628461 Email :			
Supply of pH Analyser, On-line TSS Analyser and RTD Sensor							
SL. NO.	MATERIAL DESCRIPTION	UOM	ORDER QTY	UNIT RATE	BASIC AMOUNT	DISC.AMT/ DISC %	DISCOUNTED VALUE(Rs.)
10	ONLINE EFFLUENT MONITORING SYSTEM pH Analyser: Make : Deeyoon Scale Ind.Co. Ltd, Korea; Range : 0 -14, Submersible Sensor, Output - 4 - 20 mA, Galvanically Isolated, RS 485 & RS 232 Communication, IP65 protection; Power supply : 230 VAC; 5 0Hz, Waste water Application. TSS Analyser : Make : Deeyoon Scale Ind.Co. Ltd,	PCS	1,000	370,000.00	370,000.00	0.00	370,000.00 Tax - (2.00%)
Total					370,000.00	0.00	370,000.00
Mode of Transport	Delivery Term	Freight by	C.S.T		7,400.00		
BYROAD		In scope of "Swan Environmental Pvt Ltd"	SUB-TOTAL		377,400.00		
Insur. by	S. Tax Form	To be Delivered at					
Inclusive	Extra as applicable, CST @ 2% against Form 'C'	F.O.R. APNRL Padampur Stores.					
					0,000		Grand Total(Rs.)
							377,400.00
THREE LAKH SEVENTY-SEVEN THOUSAND FOUR HUNDRED ONLY (Rs.)							
* Please quote PURCHASE ORDER ASSET reference in all the correspondence. * Please sign & return the attached copy as a token of Receipt. * Please submit your bill(s)/ Invoice(s) and Excise Invoice (if any) along with your Delivery Challan. * The Supplier shall comply with provision of the E.H.S. (Environment Health & Safety) related Documents, During the supply of the Materials Like M.S.D.S (Material Safety Data Sheet) or E.H.S (Environment Health & Safety) guidelines etc.							

Authorised Signatory

Signature

WORKS : VILL. PADAMPUR, Behind PGCL, Saranikela-Kharwan,Jharkhand Pin-832105, Phone-0657-6540445, Fax-0657-6623404
REGD.OFFICE : 14, N. S. Road, 2nd Floor, Kolkata - 700 001, Phone : 22428551, 22428553, Fax : 22428551, 22428553.
CORP.OFFICE : 6th Floor, Lansdowne Towers, 2/1/A, Sarat Bose Road, KOLKATA - 700 020, Phone : 033 - 30517100



Adhunik Power & Natural Resources Ltd.

VII-Padampur, PGCIL/S/S,Kandra - 832402

Phone & Fax : 0657-6628400 6628440

CONTD.PURCHASE ORDER NO.4300000360

SPECIAL INSTRUCTIONS

Online pH Analyzer : Rs.1,60,000.00 - Rs. 31,304.35 = Rs. 1,28,695.65

Online TSS Analyzer : Rs. 2,70,000.00 - Rs. 52,826.09 = Rs. 2,17,173.91

RTD Sensor with Thermo well and head mounted Transmitter : Rs. 30,000.00 - Rs. 5,869.57 = Rs. 24,130.43

Detail of System / Equipment to be supplied

pH Analyser - Make : Deeyoon Scale Ind.Co. Ltd, Korea; Range : 0 -14, Submersible Sensor, Output - 4 - 20 mA, Galvanically Isolated, RS 485 & RS 232 Communication, IP65 protection, Power supply : 230 VAC; 50Hz, Waste water Application.
Online TSS Analyser - Make : Deeyoon Scale Ind.Co. Ltd, Korea; Range : 0 -14, Submersible Sensor, Output - 4 - 20 mA, Galvanically Isolated, RS 485 & RS 232 Communication, IP65 protection, Power supply : 230 VAC; 50Hz, Waste water Application.
RTD Sensor with Thermo well and head mounted Transmitter - Make : Therm al Instruments (India) Pvt. Ltd

PAYMENT TERM

50% in Advance along with Purchase Order and balance with 100% Tax against Delivery.

GIARANTEE / WARRANTY

18 months for the Instrument from the date of supply or 12 months from date of final installation whichever is earlier.

Battery & Glass Ware not included under warranty.

OUR DETAILS

Range : ADITYAPUR-IV,SOURADEEP PLAZA,BISTUPUR,JAMSHEDPUR Regn. No. : AAFC2331JEM001
Range Address :
Division : JAMSHEDPUR ECC No. : AAFC2331JEM001
C.S.T.No. : 20620905536-101 L.S.T. No.: 20620905536
Div. Address : ADITYAPUR III, BAIDEHI BHAWAN, ADITYAPUR,JAMSHEDPUR VAT / TIN No.: AAFC2331J
Corporate Identity Number : 040101WB2005PLC102935
Commissionerate : 143, NEW BARADWARI, JAMSHEDPUR, JHARKHAND

Created by APNRL_BIKASH 13.06.2015	Checked by APNRL_MJHA 13.06.2015	Checked by APNRL_RAJESH 13.06.2015	Approved by APNRL_NGOVAL 15.06.2015
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Terms and Condition

1. Address : Unless specifically stated otherwise, all communication(s) in respect of this order shall be made to Adhunik Power & Natural Resources Ltd (Purchase Dept - Tel No. 0657 662 8441)
2. Meaning of Expression : The Purchaser in those conditions means "Adhunik Power & Natural Resources Ltd." The Seller includes all person(s), items, corporation and companies, entity etc, who agree to sell to purchaser.
3. Quantity Ordered : In case of strike, shortage of labor, breakdown, accident or other unforeseen contingencies of whatever nature causing stoppage of production at purchaser's works, the purchaser reserves the right to cancel or modify the order without being liable for any compensation and/or claim of any description. The goods rejected for any reason will be returned to seller with charges for transportation both ways plus labor, re-loading etc. and not to be replaced except upon receipt of written instructions from purchaser.
4. Description : Please refer to item on the face of the Purchase Order along with detailed description below the item.
5. Delivery : The timely delivery of the materials shall be the essence of the contract and any failure on that score will entail the buyer to purchase the material from the market at the prevailing market rate at the cost and risk of the seller without any prejudice to the right of the buyer to cancel the order. On request of the purchaser, seller will arrange for necessary insurance of the materials. Any loss breakage or any damage during transit due to any cause whatsoever shall be borne by the seller.
6. Packing Instructions : All articles should be packed properly to avoid breakage or pilferage of the material In transit. In addition to the specific advice of the purchaser.
7. Challan : The seller must deliver the goods as per the delivery instruction under their challan having material code, p.o. reference, and their own supplier code as given in relevant order and its reference no. No goods will accept without proper challan having these Informations.
8. Inspection : Inspection of the goods finally will be made by purchaser at their own factory and their report shall be final and binding on both the parties. In case of Forging, Casting etc. If any defect is detected during the machining operations such as casting/ forging will be rejected on seller's account. In Case Inspection at your site, then: 10 days advance information to be given to us for sending our Inspector(S). Inspected material duly approved by our inspector may be dispatched along with Adhunik Power & Natural Resources Ltd. Inspection certificate or joint inspection report, as the case may be. In case any drawing/ sketch is involved in the supply, you should be in the position to present the same to our inspector at the time of inspection for the verification. In case any specific test report by any institute/ laboratory is required, same shall accompany the dispatch document, failing which the material will be liable for rejection at our end.

Authorised Signatory

Signature

WORKS : VILL: PADAMPUR, Behind PGCIL, Saraikele-Kharwan,Jharkhand Pin-832105, Phone-0657-6540445, Fax-0657-6623404
REGD.OFFICE : 14, N. S. Road, 2nd Floor, Kolkata - 700 001, Phone : 22428551, 22428553, Fax : 22428551, 22428553.
CORP.OFFICE : 6th Floor, Lansdowne Towers, 2/1A, Sarai Bose Road, KOLKATA - 700 020, Phone : 033 - 30517100



Adhunik Power & Natural Resources Ltd.

VII-Padampur, PGCIL/S,Kandra - 832402

Phone & Fax : 0657-6628440 6628440

CONTD.PURCHASE ORDER NO.4300000360

9. Invoicing / Billing : Invoice in triplicate accompanied with receipted challan must be sent by the seller to the purchaser, separate invoice should be sent for the each order, order number with prefix letter and date, railway receipt number and date and the wagon number should be shown on each invoice when the supplies are made by rail. All invoices must show and/or number/unit and rate at which each item or the material is charged in the invoice and freight paid on the consignment, mode of dispatch should be indicated in the invoice.

10. Terms of Payment: Payment will be as usual calculated on actual rate and quantity received and accepted by purchaser's works and their records will be considered final and decisive in this respect. Payment will be made only after the goods have been received and approved by the purchaser's inspection dept. and found satisfactory in terms of quality and other specification laid down in the order. Payment may be withheld till execution of this order to the purchaser's satisfaction. No interest will be paid on the outstanding(s).

11. Price : All the rates stated in the order are understood to be for purchaser's works unless otherwise expressly agreed. No charge will be allowed for packing or cartage unless specified on order. No revision of the price will be permitted during the period of the contract. If prices are omitted in the order, it is agreed that seller's price will be the lowest of the prevailing market price.

12. Penalty : All rejected materials would be returned to the seller immediately on the rejection at the cost of seller. In respect of packing freight and insurance etc. in the event of the seller's failure to supply the goods in time. The purchaser reserves the right to purchase goods from the market on seller's account and risk and can hold them liable for any difference in price and / or other incidental expenses arising thereon. If the purchaser finds that the material supplied are not of the contracted quality or not according to the specification required or received in damaged or broken condition or otherwise not satisfactory, owing to any reason thereof. The purchaser shall be sole judge and entitled to reject the material, cancel the contract and buy its requirement in the open market on seller's risk & cost. Purchaser can recover the loss if any. From the seller reserving always the right to forfeit the deposit, (if any) placed by the seller for the due fulfillment of the contract, the seller will make arrangements to remove the rejected materials. Otherwise they will be lying entirely at seller's risk and responsibility. Any demurrage, wharf age or similar charges which purchaser have to undergo on account of the seller's failure to book the goods in accordance with the order or due to late delivery of the railway receipt, shall be borne by the seller.

13. Disputes : In all cases of disputes(s), the decision of the purchaser shall be final and binding on both the parties.

14. Other Terms : The security deposit if any submitted by the seller for the due fulfillment of the contract will be at no interest and will be returned only after the contract has been completed to the entire satisfaction of the company, purchaser order will be treated open until full purchase order is supplied and accepted by the purchaser. Disregard of any of the above instruction or conditions will invariably delay the payment of bills.

15. General : Please mention clearly order reference in all the correspondence/ challans / invoices etc. Challan must specify supplier code & item wise code and item line no.(s) in the purchase order. Separate challan in duplicate against each order along with material dispatch advise, excisable gate pass & sales tax registration no. should be sent with materials. Invoices in the name of our works office and will be submitted in triplicate along with receipted challan giving order details to our works' office for payment. A copy of the invoice must be forwarded to this purchase office for the information and co-ordination. Materials, if rejected should be collected within seven days from the date of the receipt of the rejection advice. These terms shall also be applicable to special contracts over and above the terms which are agreed in such cases.

16. On receipt of our purchase order at your end, if NO written order acceptance is given to us within 5 working days from the receipt of the Order, we shall deem that the purchase order has been accepted by you.

17. The jurisdiction in respect of this Order and all disputes of differences in relation thereto shall be at Jamshedpur.

18. The vendor / contractor shall comply with the statutory / regulatory board / pollution control board(s) of respective states or country relating to handling of hazardous chemicals

19. Material procurement is partly evaluated on the basis of Energy Performance.

20. During design of new modification/renovation energy performance improvement opportunity to be considered.

Delivery : The Delivery Date mentioned is the last date of Delivery of Goods in case of Purchase Order(s) and start date of Service in case of Service Order(s).

Payment Terms : The standard payment terms is 30 days credit i.e. within 30 days after Delivery & Acceptance of the Materials / Service and submission of Tax Invoice / Bill unless & otherwise specifically mentioned in the clause "PAYMENT TERMS" of the Order.

Delivery Period Tolerance : The tolerance is 2 / 4 weeks after which the LD clause may be applicable.

Liquidated Damage : The LD shall be charged @ 0.5% per week for the number of weeks of Delay in part or full subject to maximum of @ 5% of Total Order Value, if specifically mentioned in the Order.

Authorised Signatory

Signature

WORKS : VILL: PADAMPUR, Behind PGCIL, Saraikele-Kharswan, Jharkhand Pin-832105, Phone-0657-6540445, Fax-0657-6623404
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CORP.OFFICE : 6th Floor, Lansdowne Towers, 2/1A, Sarai Bose Road, KOLKATA - 700 020, Phone : 033 - 30517100



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by: - National Accreditation Board for Testing Laboratory (NABL) & Jharkhand State Pollution Control Board (JSPCB)
Certified by: - An ISO 9001:2015 & BS OHSAS 18001 : 2007



Certificate No. - TC 7813

ANALYTICAL TEST REPORT

Atmospheric Pollution Test Report		URL (Unique Lab Report) No.	TC78132020000303P
Report Release Date	30 th September 2020	Report ID	YBAEEL-200304-132814 - S3
Sample Description	Stationary Source Emission	Job code/ Ref. no.	YBAEEL/WA/LA/Sep. -20/15
Type of Industry	Power Generation	Work Order No./ Date	3030004681 - 18/02/2020
Issue to	M/s Adhunik Power & Natural Resources Limited (Unit -1) Vill.- Padampur, Behind PGCIL Sub-station, Jamshedpur-832105, Jharkhand.		
Sampling Period	25 th September, 2020	Mode of sample collection	Sampling team of YBAEEL
Sampling Protocol	IS: 11255 & CPCB Guideline (Lats/80/2013-14)		
Meteorological Cond.	W.C.- Cloudy	RH % - 69%	Temp.-32°C
Sample receipt Date	27/09/2020	Analysis Started on	27/09/2020
		Analysis completed on	30/09/2020

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	191 Ton/Hr.
Stack Description (Shape & Material)	Circular / Metal	Total production Capacity	270 MW
Sampling port	Available	Height of Stack from ground level	275mtr.
Stack Identification	Single-Boiler - 01	Inner Diameter of Stack	4.2mtr.
Height of port hole from Ground level	90 mtr.	Pollution Controlling Device	ESP (for PM)

Test Results

Sl	Parameter s	Test Method	Units	Results	Limits
1.	Stack gas Temperature	IS 11255 (Part 3)2008	k	392.6	-
2.	Stack gas Velocity	IS 11255 (Part 3)2008	m/s	25.15	-
3.	Volumetric Flow Rate	IS 11255 (Part 3)2008	Nm ³ /hr	921611.1	-
3.	Particulate Matter (PM)	IS 11255 (Part 1)2009	mg/Nm ³	42.10	50
4.	Sulphure Dioxide (SO ₂)	IS 11255 (Part 2)2009	mg/Nm ³	570.7	600
5.	Oxide of Nitrogen (as NO _x)*	IS 11255 (Part 7)2005 RA 2012	mg/Nm ³	282.9	300
6.	Concentration of CO	IS 13270:1992 (RA 2009)	mg/Nm ³	23.0	-

Emission Rate

1.	Particulate Matter (PM)	IS 11255 (Part 1)2009	Kg/hr	38.79	-
2.	Sulphure Dioxide (SO ₂)	IS 11255 (Part 2)2009	Kg/hr	525.96	-
3.	Oxide of Nitrogen (as NO _x)	IS 11255 (Part 7)2005 RA 2012	Kg/hr	260.75	-

End of Report

Remarks	Samples Comply with the prescribed specification as per 3305(3) 7 th December 2015		
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit,		
Note	The parameters marked with * are not accredited by NABL.		
Specific contractual notes	All values are expressed in as unit.		
	The results listed refer only to the tested sample and applicable parameter.		
	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 Lab In-charge		
	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		
	Tested by Amit Kumar Sinha Lab Analyst	Verified by Brij Nandan Kumar Section In-charge	Issued by Umesh Das Technical Manager



Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical & Environmental Engineering Laboratory
Branch Office : - Jamshedpur Dhanbad Hazaribagh
Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand
Ph : 098351-97960, 098357-86677, Email - ybaeel@gmail.com, Web - https://ybaeel.in



Bag Filter installed at Coal mill building



Bag Filter installed at Ash silo



Bag filter at buffer hopper



Dust suppression through Tanker



Fixed type DS system for coal Conveyor



DE system at Coal Crusher House



Closed type coal conveying system



Fixed type dust suppression system



Fixed type DS system at Coal Yard



Adhunik Power & Natural Resource Limited

FLY ASH GENERATION & UTILIZATION REPORT (2020-21)

Sl. No.	Ash Generation and Utilization						Mode of Ash Utilization			
	Months	Coal Consumed	Ash Contents of Coal (%)	Fly Ash Generation	Fly Ash Utilization	%age Utilization	In Making of Fly Ash Based bricks /Blocks /Tiles etc	In manufacturing of Portland Pozzolana Cement	Fly Ash In Reclamation of Low Lying Area	Bottom Ash In Reclamation of Low Lying Area
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	APRIL	115606	52.34	60503.94	60503.94	100.0%	1065.52	4096.4	46266.4	9075.59
2	MAY	168525	41.99	70767.29	70767.29	100.0%	13442.08	35367.6	11342.5	10615.1
3	JUNE	142338	47.37	67418.74	67418.7	100.0%	6335.44	43916.6	7053.9	10112.8
4	JULY	176651	45.49	80354.38	80354.38	100.0%	4258.77	52619.5	11423.0	12053.2
5	AUG	196856	43.51	85643.37	85643.4	100.0%	7378.28	39827.5	25591.1	12846.5
6	SEP	182193	41.54	75682.63	75682.6	100.0%	11921.23	35653.5	16755.5	11352.4



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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Certificate No. - TC 7813

ANALYTICAL TEST REPORT

Water Test Report		URL(Unique Lab Report) No.		TC78132030000048P	
Date of Issue	30 th September 2020		Report ID		YBAEEL-200304-132814 – Soi04
Sample Description	Bottom Ash		Job code / Ref. no.		YBAEEL/WA/L/C/Sep.-20/01
Type of Industries	Power Generation		Work Order No./ Date		3030004681 - 18/02/2020
Issued to : -	M/s Adhunik Power & Natural Resources Limited (Unit -1) Vill.- Padampur, Behind PGCIL Sub-station, Jamshedpur-832105, Jharkhand.				

Sampling date	26/09/2020	Mode of sample Collection	By YBAEEL Team		
Sampling Protocol	YBAEEL/SP/01/00	Sample Code	200927 – S – E02		
Sampling Location	Hopper	Sampling Source	Bottom Ash		
Sample pkg. Condition	Sealed Pack in Zipper Bag	Sample Quantity	2.5 Kg Approx.		
Meteorological cond.	W.C. – Partly Cloudy	RH – 74 %	Temp. – 26°C		
Work allotted date	27/09/2020	Test started on	27/09/2020	Test completed on	30/09/2020

Test Result

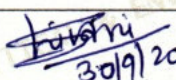
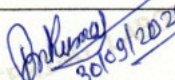
Sl. No.	Tested Parameter	Method	Unit	Result
1.	Arsenic	Method 3111(B) APHA 23 rd Edition, 2017	ppm	0.08
2.	Mercury	Method 3111(B) APHA 23 rd Edition, 2017	ppm	0.04
3.	Chromium	Method 3111(B) APHA 23 rd Edition, 2017	ppm	0.58
4.	Lead	Method 3111(B) APHA 23 rd Edition, 2017	ppm	1.00
5.	Iron	Method 3111(B) APHA 23 rd Edition, 2017	ppm	24.0
6.	Cadmium	Method 3111(B) APHA 23 rd Edition, 2017	ppm	0.07
7.	Copper	Method 3111(B) APHA 23 rd Edition, 2017	ppm	0.13
8.	Nickel	Method 3111(B) APHA 23 rd Edition, 2017	ppm	0.71
9.	Zinc	Method 3111(B) APHA 23 rd Edition, 2017	ppm	0.24
10.	Unborn carbon	%	%	2.4

*****End of Test*****

Note : The parameters marked with * are not accredited by NABL.

Specific contractual notes: -

- ♦ The results listed refer only to the tested sample and applicable parameter.
- ♦ 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 Lab In-charge
- ♦ The samples received shall be destroyed after two month from the date of issue of the certificate unless specified otherwise and sample for biological testing will be destroyed after one two week of testing.
- ♦ The liability of the laboratory is limited to the invoiced amount.
- ♦ All disputes are subjected to the Ranchi Jurisdiction.
- ♦ ND - not detected, DL - detectable limit

 30/9/20	 30/09/2020	 30/9/20
Tested by Shivani Kumari Singh Lab Analyst	Checked by Brij Nandan Kumar In-Charge Pollution & Environment	Issued by Umesh Das Technical Manager



Branch Office : - Jamshedpur Dhanbad Hazaribagh Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi, Jharkhand

Ph : 098351-97960, 098357-86677, Email - ybaeel@gmail.com, Web - https://ybaeel.in

Authorized Signatory

Pollution & Environment

Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Page 1 of 1





YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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Certificate No. - TC 7813

ANALYTICAL TEST REPORT

Water Test Report		URL(Unique Lab Report) No.	TC78132030000046P
Date of Issue	30 th September 2020	Report ID	YBAEEL-200304-132814 -WW06
Sample Description	Waste Water	Job code / Ref. no.	YBAEEL/WA/L/C/Sep.-20/16
Type of Industries	Power Generation	Work Order No./ Date	3030004681 - 18/02/2020
Issued to: -	M/s Adhunik Power & Natural Resources Limited (Unit -1) Vill.- Padampur, Behind PGCIL Sub-station, Jamshedpur-832105, Jharkhand.		
Sampling date	26/09/2020	Mode of sample Collection	By YBAEEL Team
Sampling Protocol	IS : 3025 (Part-1) 1987, R-2003	Sample Code	200927 - WW - E03
Sampling Location	Ash Pond	Sampling Source	Effluent Water
Sample pkg. Condition	Sealed Pack in PP Bottle	Sample Quantity	4000 ml
Meteorological cond.	W.C. - Partly Cloudy	RH - 74 %	Temp. - 36°C
Work allotted date	27/09/2020	Test started on	27/09/2020
		Test completed on	30/09/2020

Test Result

Sl	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2002	pH	8.8	5.5 - 9.0
2.	Temperature*	IS 3025 (P-09)	°C	29.0	40
3.	Total suspended solids	IS 3025 (P-17):2012	mg/l	90.0	100
4.	Oil and grease	IS 3025 (P-39):2003	mg/l	0.8	10
5.	Arsenic (as As)	APHA 3114 B 23 rd edition 2017	mg/l	ND (DL 0.01)	0.2
6.	Chromium (as Cr)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.05)	0.05
7.	Lead (as Pb)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.01)	0.1
8.	Mercury (as Hg)	APHA 3112 B 23 rd edition 2017	mg/l	ND (DL 0.003)	0.01

*****End of Test*****

Remarks :-Samples Comply with the prescribed Specification as per IS:2490:1974, except TSS.

Note : The parameters marked with * are not accredited by NABL.

Specific contractual notes: -

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- ♦ The liability of the laboratory is limited to the invoiced amount.
- ♦ All disputes are subjected to the Ranchi Jurisdiction.
- ♦ ND - not detected, DL - detectable limit

Tested by	Checked by	Issued by
Shivani Kumari Singh	Brij Nandan Kumar	Umesh Das
Lab Analyst	In-Charge Pollution & Environment	Technical Manager

Authorized Signatory

Pollution & Environment

Yugantar Bharati Analytical &

Environmental Engineering Laboratory

Page 1 of 1



Branch Office :- Jamshedpur

Dhanbad

Hazaribagh

Main Office : Namkum Post Office, Sidroul, Ranchi -

Ph : 098351-97960, 098357-86677, Email - ybaeel@gmail.com, Web - https://ybaeel.in



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Certificate No. - TC 7813

ANALYTICAL TEST REPORT

Water Test Report		URL(Unique Lab Report) No.	TC78132030000044P
Date of Issue	30 th September 2020	Report ID	YBAEEL-200304-132814 -WW04
Sample Description	Waste Water	Job code / Ref. no.	YBAEEL/WA/L/C/Sep.-20/14
Type of Industries	Power Generation	Work Order No./ Date	3030004681 - 18/02/2020
Issued to :-	M/s Adhunik Power & Natural Resources Limited (Unit -1) Vill.- Padampur, Behind PGCIL Sub-station, Jamshedpur-832105, Jharkhand.		
Sampling date	26/09/2020	Mode of sample Collection	By YBAEEL Team
Sampling Protocol	IS : 3025 (Part-1) 1987, R-2003	Sample Code	200927 - WW - E01
Sampling Location	Outlet of ETP	Sampling Source	Effluent Water
Sample pkg. Condition	Sealed Pack in PP Bottle	Sample Quantity	4000 ml
Meteorological cond.	W.C. - Partly Cloudy	RH - 74 %	Temp. - 26°C
Work allotted date	27/09/2020	Test started on	27/09/2020
		Test completed on	30/09/2020

Test Result

Sl	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2002	pH	7.84	5.5-9.0
2.	Temperature	IS 3025 (P-09)	°C	29.0	40
3.	Total suspended solids	IS 3025 (P-17):2012	mg/l	74.0	100
4.	Chloride (as Cl ⁻)	IS 3025 (P-32):2003	mg/l	157.1	1000
5.	BOD	IS 3025 (P-44):2009	mg/l	18.8	30
6.	COD	IS 3025 (P-58):2006	mg/l	98.0	250
7.	Oil and grease	IS 3025 (P-39):2003	mg/l	5.2	10
8.	Chromium (as Cr)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.05)	0.05
9.	Copper (as Cu)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.01)	3
10.	Lead (as Pb)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.01)	0.1
11.	Zinc (as Zn)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.01)	5
12.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24):2003	mg/l	19.7	1000

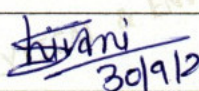
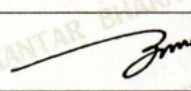
*****End of Test*****

Remarks :-Samples Comply with the prescribed Specification as per IS:2490:1974

Note : The parameters marked with * are not accredited by NABL.

Specific contractual notes: -

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- ◆ 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 Lab In-charge
- ◆ The samples received shall be destroyed after two month from the date of issue of the certificate unless specified otherwise and sample for biological testing will be destroyed after one two week of testing.
- ◆ The liability of the laboratory is limited to the invoiced amount.
- ◆ All disputes are subjected to the Ranchi Jurisdiction.
- ◆ ND - not detected, DL - detectable limit

 Tested by Shivani Kumari Singh Lab Analyst	 Checked by Brij Nandan Kumar In-Charge Pollution & Environment	 Issued by Umesh Das Technical Manager
---	---	--



Branch Office :- Jamshedpur Dhanbad Hazaribagh Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi - 834001, Jharkhand

Ph : 098351-97960, 098357-86677, Email - ybaeel@gmail.com, Web - https://ybaeel.in

Authorized Signatory
Pollution & Environment
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Page 1 of 1



Sewage Treatment Plant



प्ररूप XV
(प्रथम अनुसूची का अनुच्छेद 6 देखिए)
FORM XV
(see Article 6 of the First Schedule)

अधिष्ठापनों में पेट्रोलियम के आयात और भंडारण के लिए अनुज्ञप्ति
LICENCE TO IMPORT AND STORE PETROLEUM IN AN INSTALLATION

अनुज्ञप्ति सं. (Licence No.): P/HQ/JH/15/1065(P257355)

फीस रूप (Fee Rs.) 50000/- per year

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 को केवल इसमें यथा विनिर्दिष्ट वर्ग और मात्राओं में पेट्रोलियम 5000.00 KL आयात करने के लिए और उसका, नीचे वर्णित और अनुमोदित नक्शा संख्या P/HQ/JH/15/1065(P257355) तारीख 23/12/2011 जो कि इससे उपाबद्ध हैं, में दिखाए गए स्थान पर भण्डारण के लिए पेट्रोलियम अधिनियम, 1934 के उपबंधों या उसके अधीन बनाए गए नियमों तथा इस अनुज्ञप्ति की अतिरिक्त शर्तों के अधीन रहते हुए, यह अनुज्ञप्ति अनुदत्त की जाती है।

Licence is hereby granted 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 valid only for the importation and storage of 5000.00 KL Petroleum of the class and quantities as herein specified and storage thereof in the place described below and shown on the approved plan No P/HQ/JH/15/1065 (P257355) dated 23/12/2011 attached hereto subject to the provisions of the Petroleum Act, 1934 and the rule made thereunder and to the further conditions of this Licence.

यह अनुज्ञप्ति 31st day of December 2022 तक प्रवृत्त रहेगी।
The Licence shall remain in force till the 31st day of December 2022

पेट्रोलियम का विवरण /Description of Petroleum	अनुज्ञप्त मात्रा (किलोलीटरों में) /Quantity licenced in KL
वर्ग क प्रपुंज पेट्रोलियम /Petroleum Class A in bulk	NIL
वर्ग क प्रपुंज पेट्रोलियम से भिन्न /Petroleum Class A, otherwise than in bulk	NIL
वर्ग ख प्रपुंज पेट्रोलियम /Petroleum Class B in bulk	NIL
वर्ग ख प्रपुंज पेट्रोलियम से भिन्न /Petroleum Class B, otherwise than in bulk	NIL
वर्ग ग प्रपुंज पेट्रोलियम /Petroleum Class C in bulk	5000.00 KL
वर्ग ग प्रपुंज पेट्रोलियम से भिन्न /Petroleum Class C, otherwise than in bulk	NIL
कुल क्षमता /Total Capacity	5000.00 KL

December 15, 2011

Chief Controller of Explosives

1). Amendment dated - 23/12/2011

अनुज्ञप्त परिसरों का विवरण और अवस्थान
DESCRIPTION AND LOCATION OF THE LICENSED PREMISES

अनुज्ञप्त परिसर जिसकी विन्यास सीमाएं अन्य विशिष्टियां संलग्न अनुमोदित नक्शों में दिखाई गई हैं Plot No: Plot No. 161,, Behind PGCIL.Substation adityapur, Kandra Road, Village- Padampur, District: SARAIKELLA KHARSWAN, State: Jharkhand, PIN: 999999 स्थान पर अवस्थित है तथा उसमें निम्नलिखित Two Petroleum ClassCAboveground storage tanks,togetherwith other connected facilities. सम्मिलित हैं।

The licensed premises, the layout, boundaries and other particulars of which are shown in the attached approved plan are situated at Plot No: Plot No. 161,, Behind PGCIL.Substation adityapur, Kandra Road, Village- Padampur, District: SARAIKELLA KHARSWAN, State: Jharkhand, PIN: 999999 and consists of Two Petroleum ClassCAboveground storage tanks,togetherwith other connected facilities. together with connected facilities.

पेज सं. 2

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

नवीनीकरण के पृष्ठांकन के लिए स्थान
SPACE FOR ENDORSEMENT OF RENEWALS

पेट्रोलियम अधिनियम, १९३४ के उपबन्धों या उनके अधीन बनाए गए नियमों या इस अनुज्ञप्ति की शर्तों का उल्लंघन न होने की दशा में यह अनुज्ञप्ति फ़िस में बिना किसी छूट के दस वर्ष तक नवीकृत की जा सकेगी।
This licence shall be renewable without any concession in fee for ten years in the absence of contravention of any provisions of the Petroleum Act, 1934 or of the rules framed thereunder or of any of the conditions of this licence.

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	K. Thiagarajan Dy. Chief Controller of Explosives Ranchi

उप मुख्य विस्फोटक नियंत्रक, राँची
Dy. Chief Controller of Explosives, Ranchi

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

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

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

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Certified by: - An ISO 9001:2015 & BS OHSAS 18001 : 2007



Certificate No. - TC 7813

ANALYTICAL TEST REPORT

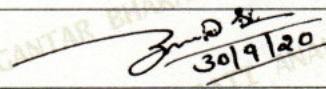
Water Test Report		URL(Unique Lab Report) No.	
Date of Issue		TC78132010000061P, TC78132040000038F	
Sample Description		Report ID	
Type of Industries		YBAEEL-200304-132814 -GW03	
Issued to: -		Job code / Ref. no.	
M/s Adhunik Power & Natural Resources Limited (Unit -1)		YBAEEL/WA/L/C/Sep.-20/13 (M-03)	
Vill.- Padampur, Behind PGCIL Sub-station,		Work Order No./ Date	
Jamshedpur-832105, Jharkhand.		3030004681 - 18/02/2020	
Sampling date		Mode of sample Collection	
26/09/2020		By YBAEEL Team	
Sampling Protocol		Sample Code	
IS : 3025 (Part-1) 1987, R-2003		200927 - GW - E01	
Sampling Location		Sampling Source	
Shrirampur - Down stream		Ground Water (Hand Pump & Borewell)	
Sample pkg. Condition		Sample Quantity	
Sealed Pack in PP Bottle		4000 ml	
Meteorological cond.		RH - 74 %	
W.C. - Partly Cloudy		Temp. - 26°C	
Work allotted date		Test started on	
27/09/2020		27/09/2020	
		Test completed on	
		30/09/2020	

Test Result

SI	Parameter	Test Method	Units	Results	Baseline Ground Water Quality*	Limits
1.	pH value	IS 3025 (P-11):2002	pH	7.12	6.9 - 7.4	6.5-8.5
2.	Colour	IS 3025 (P-04):1983	Hazen	<5	<5	15, max
3.	Odour*	IS 3025 (P-05):	--	Agree.	Unobjectionable	Agreeable
4.	Taste*	IS 3025 (P-07):	--	Agree.	Agreeable	Agreeable
5.	Turbidity	IS 3025 (P-10):2002	NTU	3.0	<5	5, max
6.	Alkalinity (as CaCO ₃)	IS 3025 (P-23):2003	mg/l	162.0	147-269	600, max
7.	Total Hardness (as CaCO ₃)	IS 3025 (P-21):2009	mg/l	182.0	128-308	600, max
8.	Total dissolved solids	IS 3025 (P-16):2006	mg/l	312.0	251-538	2000, max
9.	Chlorine Residual	IS 3025 (P-26):2003	mg/l	ND (DL 0.07)	<0.05	1, max
10.	Chloride (as Cl ⁻)	IS 3025 (P-32):2003	mg/l	43.3	42-74	1000, max
11.	Fluoride (as F ⁻)	APHA 4500 F-C 23 rd edition 2017	mg/l	0.2	0.31-0.50	1.5, max
12.	Nitrate (as NO ₃ ⁻)	APHA 4500 NO ₃ ⁻ (B) 23 rd edition 2017	mg/l	9.64	03-24	45, max
13.	Arsenic (as As)	APHA 3114 B 23 rd edition 2017	mg/l	ND (DL 0.01)	<0.01	0.01-0.05
14.	Calcium (as CaCO ₃)	IS 3025 (P-40): 2003	mg/l	47.2	41-99	200, max
15.	Chromium (as Cr)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.05)	<0.01	0.05, max
16.	Copper (as Cu)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.01)	<0.01	1.5, max
17.	Iron (as Fe)	APHA 3111 B 23 rd edition 2017	mg/l	0.31	0.13-0.90	0.3, max
18.	Lead (as Pb)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.01)	<0.01	0.01, max
19.	Zinc (as Zn)	APHA 3111 B 23 rd edition 2017	mg/l	0.33	0.31-0.47	15, max
20.	Cadmium (as Cd)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.001)	<0.01	0.003, max
21.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24):2003	mg/l	11.8	06-28	400, max
22.	Mercury (as Hg)	APHA 3112 B 23 rd edition 2017	mg/l	ND (DL 0.003)	<0.001	0.001, max
23.	Total Coliform	APHA (22 nd Edition 2012) 9221-B	MPN/100ml	< 1.1	ND	Shall not be detectable in any 100 ml Sample
24.	Fecal Coliform	APHA (22 nd Edition 2012) 9221-E		< 1.1	ND	

*****End of Test*****

*Provided by Customer

		
Tested by	Checked by	Issued by
Prem Kumar	Mukesh Kumar	Umesh Das
Lab Analyst	Authorized Signatory	Technical Manager



Branch Office : - Jamshedpur Dhanbad Hazaribag Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand
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Page 1 of 1



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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Certified by: - An ISO 9001:2015 & BS OHSAS 18001 : 2007



Certificate No. - TC 7813

ANALYTICAL TEST REPORT

Water Test Report		URL(Unique Lab Report) No.	TC78132010000062P, TC78132040000039F
Date of Issue	30 th September 2020	Report ID	YBAEEL-200304-132814 -GW04
Sample Description	Ground Water	Job code / Ref. no.	YBAEEL/WA/L/C/Sep.-20/13 (M-03)
Type of Industries	Thermal Power Plant	Work Order No./ Date	3030004681 - 18/02/2020
Issued to: -	M/s Adhunik Power & Natural Resources Limited (Unit -1) Vill.- Padampur, Behind PGCIL Sub-station, Jamshedpur-832105, Jharkhand.		

Sampling date	26/09/2020	Mode of sample Collection	By YBAEEL Team		
Sampling Protocol	IS : 3025 (Part-1) 1987, R-2003	Sample Code	200927 – GW – E02		
Sampling Location	Padampur Village (Upstream)	Sampling Source	Ground Water (Hand Pump & Borewell)		
Sample pkg. Condition	Sealed Pack in PP Bottle	Sample Quantity	4000 ml		
Meteorological cond.	W.C. – Partly Cloudy	RH – 74 %	Temp. – 26°C		
Work allotted date	27/09/2020	Test started on	27/09/2020	Test completed on	30/09/2020

Test Result

Sl	Parameter	Test Method	Units	Results	Baseline Ground Water Quality*	Limits
1.	pH value	IS 3025 (P-11):2002	pH	7.69	6.9 - 7.4	6.5-8.5
2.	Colour	IS 3025 (P-04):1983	Hazen	<5	<5	15, max
3.	Odour*	IS 3025 (P-05):	--	Agree.	Unobjectionable	Agreeable
4.	Taste*	IS 3025 (P-07):	--	Agree.	Agreeable	Agreeable
5.	Turbidity	IS 3025 (P-10):2002	NTU	4.0	<5	5, max
6.	Alkalinity (as CaCO ₃)	IS 3025 (P-23):2003	mg/l	154.0	147-269	600, max
7.	Total Hardness (as CaCO ₃)	IS 3025 (P-21):2009	mg/l	168.0	128-308	600, max
8.	Total dissolved solids	IS 3025 (P-16):2006	mg/l	292.0	251-538	2000, max
9.	Chlorine Residual	IS 3025 (P-26):2003	mg/l	ND (DL 0.07)	<0.05	1, max
10.	Chloride (as Cl ⁻)	IS 3025 (P-32):2003	mg/l	47.0	42-74	1000, max
11.	Fluoride (as F ⁻)	APHA 4500 F-C 23 rd edition 2017	mg/l	0.4	0.31-0.50	1.5, max
12.	Nitrate (as NO ₃ ⁻)	APHA 4500 NO ₃ ⁻ (B) 23 rd edition 2017	mg/l	12.08	03-24	45, max
13.	Arsenic (as As)	APHA 3114 B 23 rd edition 2017	mg/l	ND (DL 0.01)	<0.01	0.01-0.05
14.	Calcium (as CaCO ₃)	IS 3025 (P-40): 2003	mg/l	50.4	41-99	200, max
15.	Chromium (as Cr)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.05)	<0.01	0.05, max
16.	Copper (as Cu)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.01)	<0.01	1.5, max
17.	Iron (as Fe)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.02)	0.13-0.90	0.3, max
18.	Lead (as Pb)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.01)	<0.01	0.01, max
19.	Zinc (as Zn)	APHA 3111 B 23 rd edition 2017	mg/l	0.38	0.31-0.47	15, max
20.	Cadmium (as Cd)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.001)	<0.01	0.003, max
21.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24):2003	mg/l	23.9	06-28	400, max
22.	Mercury (as Hg)	APHA 3112 B 23 rd edition 2017	mg/l	ND (DL 0.003)	<0.001	0.001, max
23.	Total Coliform	APHA (22 nd Edition 2012) 9221-B	MPN/100ml	< 1.1	ND	Shall not be detectable in any 100 ml Sample
24.	Fecal Coliform	APHA (22 nd Edition 2012) 9221-E		< 1.1	ND	

*****End of Test*****

*Provided by Customer

Tested by Prem Kumar Lab Analyst	Checked by Mukesh Kumar Incharge - Water Section	Issued by Umesh Das Technical Manager



Branch Office: - Jamshedpur

Dhanbad

Hazaribag

Pakur

Page 1 of 1

Main Office: Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand

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YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by: - National Accreditation Board for Testing Laboratory (NABL) & Jharkhand State Pollution Control Board (JSPCB)
 Certified by: - An ISO 9001:2015 & BS OHSAS 18001 : 2007



Certificate No. - TC 7813

ANALYTICAL TEST REPORT

Atmospheric Pollution Test Report		URL(Unique Lab Report) No.		TC78132020000302F	
Report Release Date	30 th September 2020		Report ID	YBAEEL-200304-132814 -N04	
Sample Description	Work Zone Noise		Job code/ Ref. no.	YBAEEL/WA/L/A/Sep. -20/15	
Type of Industry	Power Generation		Work Order No./ Date	3030004681 - 18/02/2020	
Issue to	M/s Adhunik Power & Natural Resources Limited (Unit -1) Vill.- Padampur, Behind PGCIL Sub-station, Jamshedpur-832105, Jharkhand.				
Sampling Period	24/09/2020 – 25/09/2020		Mode of sample collection	By YBAEEL Team	
Sampling Protocol	IS 9876:1981 (RA 2007) & CPCB Method S.O.50 (E) dated 11/01/2010				
Meteorological Cond.	Temp.– 26°C		RH % - 74%		W.C.– Cloudy
Sample receipt Date	27/09/2020	Analysis Started on	27/09/2020	Analysis completed on	30/09/2020

Test Results

Sl.NO.	Locations	Parameters	Units	Day Time	Night Time	Limit
1.	Turbine Floor	Leq	dB (A)	83.4	82.9	85 dB
2.	Coal Crusher	Leq	dB (A)	79.0	71.0	
3.	Cooling Tower	Leq	dB (A)	83.8	83.6	
4.	Compressor House	Leq	dB (A)	83.8	83.1	
5.	Boiler Feed Pump Area	Leq	dB (A)	82.7	81.8	

End of Report

- Day time shall mean from 6.00 a.m. to 10.00 p.m.
- Night time shall mean from 10.00 p.m. to 6.00 a.m.
- 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.

Remarks	Sample Complies with the prescribed specification as per Indian Factories Act - 1948.	
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit,	
Note	The parameters marked with * are not accredited by NABL.	
Specific contractual notes	All values are expressed in as unit.	
	The results listed refer only to the tested sample and applicable parameter.	
	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 Lab In-charge	
	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	
	Tested by Amit Kumar Sinha Lab Analyst	Verified by Brij Nandan Kumar Section In-Charge
		Issued by Umesh Das Technical Manager



Branch Office : - Jamshedpur Dhanbad Hazaribag Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand
 Ph : 098351-97960, 098357-86677, Email - ybaeel@gmail.com, Web - https://ybaeel.in





YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by: - National Accreditation Board for Testing Laboratory (NABL) & Jharkhand State Pollution Control Board (JSPCB)

Certified by: - An ISO 9001:2015 & BS OHSAS 18001 : 2007



Certificate No. - TC 7813

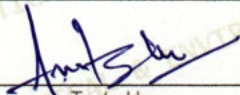
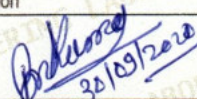
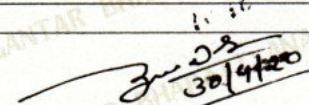
ANALYTICAL TEST REPORT

Atmospheric Pollution Test Report		URL (Unique Lab Report) No.	TC78132020000300P
Report Release Date	30 th September 2020	Report ID	YBAEEL-200304-132814 -A03
Sample Description	Ambient Air Quality (Core Zone)	Job code/ Ref. no.	YBAEEL/WA/L/A/Sep. -20/15
Type of Industry	Power Generation	Work Order No./ Date	3030004681 - 18/02/2020
Issue to	M/s Adhunik Power & Natural Resources Limited (Unit -1) Vill.- Padampur, Behind PGCIL Sub-station, Jamshedpur-832105, Jharkhand.		
Sampling Period	25/09/2020 – 26/09/2020	Mode of sample collection	By YBAEEL Team
Sampling Protocol	IS:5182 and CPCB Air Manual Volume-1(NAAQM/36/2012-13)		
Sampling Locations	A. Sati Steel	B. Hostel	C. Switch Yard
Meteorological Cond.	W.C.- Cloudy	RH % - 69%	Temp. - 32°C
Sample receipt Date	27/09/2020	Analysis Started on	27/09/2020
		Analysis completed on	30/09/2020

Test Results

Parameters	Test Method	Units	Sampling Location			NAAQS (2009)
			Site A	Site B	Site C	
Particulate matter (PM ₁₀)	IS:5182 (P-23) 2006	µg/m ³	90.9	88.0	76.0	100
Particulate matter (PM _{2.5})	USEPA -40 CFR (PART 50) (50.7)	µg/m ³	54.1	39.3	42.3	60
Sulphure Dioxide (SO ₂)	IS:5182 (P-2) 2001 RA 2012	µg/m ³	8.3	10.4	12.5	80
Nitrogen Dioxide (NO ₂)	IS:5182 (P-6) 2006 RA 2012	µg/m ³	49.2	30.0	31.2	80
Ammonia (NH ₃)	SOP No. YBAEEL/SOP/AIR/01	µg/m ³	20.1	25.0	36.5	400
Ozone (O ₃)*	IS:5182 (P-09) 1974	µg/m ³	26.0	2.4	2.5	180
Carbon Monoxide (CO)*	IS:5182 (P-10) 1999 RA 2003	mg/m ³	1.98	1.8	ND(DL 1.8)	04
Lead (Pb)	IS:5182 (P-22) 2004	µg/m ³	0.05	0.02	0.05	01
Nickel (Ni)*	SOP No. YBAEEL/SOP/AIR/01	ng/m ³	ND(DL 8.8)	ND(DL 8.8)	ND(DL 8.8)	20
Arsenic (As)*	SOP No. YBAEEL/SOP/AIR/01	ng/m ³	ND(DL 1.0)	ND(DL 1.0)	ND(DL 1.0)	06
Benzene (C ₆ H ₆)*	IS:5182 (P-11) 2006	µg/m ³	ND (DL 0.06)	ND (DL 0.06)	ND (DL 0.06)	05
Benzo (a) pyrene (BaP)* Particulate Phase Only	IS:5182 (P-12) 2004 RA 2017	ng/m ³	ND (DL 0.2)	ND (DL 0.2)	ND (DL 0.2)	01

End of Report

Remarks	Samples Comply with the prescribed specification as per NAAQS 2009.		
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit,		
Note	The parameters marked with * are not accredited by NABL.		
Specific contractual notes	All values are expressed in as unit.		
	The results listed refer only to the tested sample and applicable parameter.		
	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 Lab In-charge		
	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			
		 30/09/2020	
Tested by		Verified by	
Amit Kumar Sinha		Brij Nandan Kumar	
Lab Analyst		Section In-Charge	
		 30/09/2020	
		Issued by	
		Umesh Das	
		Authorized Signatory Technical Manager	



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ISO 9001:2015
BS OHSAS 18001:2007



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

APNRL/HR/Office Order/10
5th August'2016

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 : "LANSDOWNE TOWER", 2nd Floor, 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

05.08.2016

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 Incharge	Overall responsibility for environmental management and decision making for all environmental issues	Managing Director
03	Environment Manager	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 Incharge
04	CSR Manager	Responsibility to implement social impact improvement /mitigation measures.	Plant Incharge
05	Safety Manager	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 Incharge
06	Medical Officer	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 Incharge
06	Chemist	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	Responsible for development of Green belt & Land Scape on vacant land of Plant premises.	Environment Manager

Sr. Manager (HR)

CORPORATE OFFICE : "LANSLOWNE TOWER", 2nd Floor, 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 LTD.

(Formerly Adhunik Thermal Energy Limited)

Office : Village Padampur, Behind PGCIL Substation, Adityapur, Kandra Road, P.O: Kandra
Saraikela-Kharsawan, Jharkhand-832 402 P PHONE : 0657 6628400 P FAX : 0657 6628440
Website : www.adhunikgroup.com

Ref: MOE&F, RNC/HYC/RA/24620/01

Dated: 24.06.2020

To,

Regional Office (ECZ),
Ministry of Environment, Forest and Climate Change,
Bungalow No. A-2, Shyamali Colony,
Ranchi - 834002

Sub:- Submission of Half yearly compliance status report (Unit I) for the period - October 2019 to March 2020 -Reg.

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

Sir,

With reference to the above referred Environmental Clearance, we are pleased to submit herewith the half yearly compliance status report (Unit I) for the period of October 2019 to March 2020.

This is for your reference and record, please.

Thanking you,

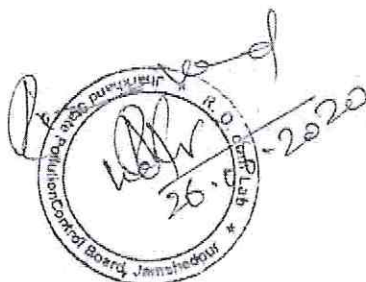
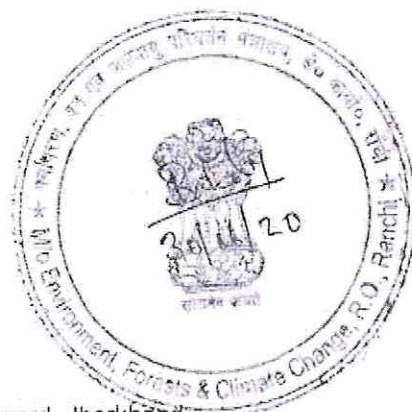
For Adhunik Power & Natural resources Limited

(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



Received

CP

17.7.20



Regd. Office : 14, Netaji Subhas Road, II-Floor, Kolkata - 700 001, Phone : 2243-4355, 2242-8551

Works: Padampur, Saraikela, Kharswan, Jharkhand

CIN U40101WB2005PLC102935

Kamlesh Kr Jha

From: Kamlesh Kr Jha
Sent: 25 September 2020 15:33
To: 'ranchijspcb@gmail.com'; 'ro.ranchi-mef@gov.in'; 'JSPCB, Jamshedpur'
Subject: Submission of Environmental Statement (Form V) for Unit I (2019-2020) of M/s Adhunik Power & Natural Resources Limited, Village-Padampur, Dist-Saraikela-Kharswan, Jharkhand.
Attachments: APNRL-Environment Statement (2019-2020)-Unit I.pdf

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

Dear Sir,

In compliance with the above general condition no XXX of environmental clearance, please find the attached environmental statement (Form V) for the financial year 2019-2020.
This is for your kind information & record please.

Thanking You

Your's faithfully

Kamlesh Kumar
Manager-Environment
Adhunik power & natural resources Ltd
Vill-Padampur, District-Saraikela, Jharkhand
Mobile no-7763818994