

# ADHUNIK POWER & NATURAL RESOURCES LIMITED

WORKS: Village - Padampur, Behir Adityapur - Kandra Road, Saraikela - Khars Phone: +91 - 657 - 6628400, Fax

CIN - U40101WB2005

Ref: MOE&F, RNC/HYC/KKJ/26521/01

To.

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

E34929581173N IVR:6974492858187RATU SID SPP MANGO 50 (831012) Counter No:3,27/05/2021.12:1 To:RESIONAL OFFI,H OF E F & C PIN:034002, Doranda Hū From MANLESH KUN, ADHUNIK POWER ₩t:5iVoms Amt:76.70 (Cash) Tax:11.70 (Track on www.indiapost.gov.in) (Dial 18002666668) (Wear Masks, Stay Safe)

Sub:- Submission of Half yearly compliance status report (Unit I) for the period - October 2020 to March 2021 -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 2020 to March 2021.

This is for your reference and record, please.

Thanking you,

For Adhunik Power & Natural resource

EJ492050369IN IVR:697449Z SEP MANGO SO (831012) Counter Mo:5,27/05/2021,12:15 TOIC P C BOARD, KOLKATA PIN:700107. Hadurdaha Sü

Ventin Pla

From KAMLESH KUH, AUHUNIK PUWER Wi:510ons

Яві: 106.20 (Cash) Тах:16.20

(Track on www.indiapost.gov.in) <Dial 18002666888> (Sear Heaks,

Encl: As Above

(Authorized Signatory)

Copy to:

REGD. OFFICE

1. Central Pollution Control Board, F.

2. Member Secretary, Jharkhand State Foliution Control Board, Markhand

Regional Officer, JSPCB, Jamshedpur

भाजनीय गत 492050125TN IVR:6974492050 MANGO 50 (831012) India Prei lounter No:3,27/05/202. TO: MEMBER BECRETAY, J S F C BOAKD P7M:834004. มีกับๆพล 5นี From:KAMLESH KUM, AUHUNIK POWER พับเริ่มข้อแล Amt:76.78 (Cash) Tax:11.76 (Track on www.indiapost.gov.in) 

EJ492050Z40IN IVR:69744920502 SP MANGO SD (831012) Counter No:3,27/03/2021,12:15 TO:REGIONAL OFFICER, J S P C'BOARD PIM:831013, Adityapur 80 From: KANLESH KUH, ADHUNIK POWER ist :500amg Ami:35.40 (Čash) Tax:5.40 cTrack on www.indiapost.gov.in> (Dial 18002666868) (Wear nesks, Stay Safe)

- ... ODOVVINE / OWER", 2/1A, Sarat Bose Road, Kolkata - 700 020 Ph: +91 - 33 - 30517100 / 7200 / 7300 • Fax: +91 - 33 - 22890285

: 14, N. S. Road, 2nd Floor, Kolkata - 700 001, Phone No. +91 - 33 - 22428551, 22428553

Website : www.adhunikpower.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

Ref: MOE&F, RNC/HYC/KKJ/26521/01

Dated: 26.05.2021

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 2020 to March 2021 -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 2020 to March 2021.

This is for your reference and record, please.

Thanking you,

For Adhunik Power & Natural resources Limited

(Authorized Signatory)

Encl: As Above

Copy to:

Central Pollution Control Board, Kolkata

2. Member Secretary, Jharkhand State Pollution Control Board, Jharkhand

3. Regional Officer, JSPCB, Jamshedpur

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

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

REGD. OFFICE

: 14, N. S. Road, 2nd Floor, Kolkata - 700 001, Phone No. +91 - 33 - 22428551, 22428553

Website

: www.adhunikpower.com

# REPORT

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



#### **OCTOBER 2020 - MARCH 2021**

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

#### Adhunik Power & Natural Resources Limited

Vill: Padampur, Behind PGCIL Substation, Kandra Chouka Road, Saraikela-Kharsawan, Jharkhand

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

Period Of Compliances: October 2020 to March 202	Period Of	Compliances:	October	2020 to	March	2021
--	-----------	--------------	---------	---------	-------	------

	Period Of Compliances: October 2020 to March 2021				
SI No	EC Conditions	Status as on 31 <sup>st</sup> March 2021			
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. <b>Complied</b>			
3	EC is subject to final order of the Hon'ble Supreme court of India in the matter of Goa foundation Vs Union of India in Writ. Petition (Civil) no. 460 of 2004 as may be applicable to this project.	Not applicable.			
4	Project proponent should contribute @ Rs. 20000/ha for project area as proportionate cost to the regional Wildlife Conservation plan and a copy of the plan should be submitted to the ministry.	As in Sl. No. 2 the Wild Life Management Plan (WLMP) prepared has already been approved by PCCF, Ranchi on May'10.2010.  1st installment already submitted.  Complied			
5	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.45 % and 46 % respectively at any given time. In case of variation of coal quality at the time of issuance of LOA, a fresh reference shall be made to MoEF for suitable amendment to EC condition wherever necessary	The sulphur 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/Nm3	High efficient ESPs of 32 fields has been installed to ensure control Particulate matter emission in flue gas. Stack monitoring report for the month of March 2021 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-March 2021) 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.  Ash pond shall be lined with impervious	pond is being done periodically. Bottom ash analysis report & effluent analysis report of ash pond for the month of March 2021 enclosed as Annexure V & Annexure VI respectively.  Complied
10	lining. Adequate safety measures shall be implemented to protect the ash dyke from getting breached.	
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 March 2021 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 <sup>st</sup> Dec 2022 for LDO storage installation (under Petroleum Class "C") for operations. Copy of Approval are enclosed as <b>Annexure IX</b> .  We are using Sulphur content in the liquid fuel within prescribed limit. Copy of Test report are enclosed as <b>Annexure X</b> .
19	Regular monitoring of ground water in and around to ash pond area including heavy metals (Hg, Cr, As, Pb) shall be carried out, records maintained and six monthly report shall be furnished to RO of ministry. The	Regular monitoring of ground water in and around ash pond area including heavy metals is being carried out. Ground water analysis report of upstream & downstream of ash pond compared with baseline data for the month of March 2021

	des as placed shared to common or all	CONTROL OF A CONTROL OF
	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.	enclosed as Annexure XI.
20	A green belt of adequate with and density shall be developed around the plant periphery covering 1/3 of the project area preferably with local species.	A thick green belt of adequate width is being developed.68123 nos. (Area covered-30.9 Hac) of plantation has been completed in and outside along the periphery of the power plant to arrest any dust emissions and help in attenuation of noise till March 2020. Survival rate of sapling is 85.5%. Total Survived plants are 58245. 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 March 2021 As Annexure XII.
23	Regular monitoring of ground level concentration of SO2, NOx, RSPM and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to RO of ministry. The data shall also be put on the website of the company.	Monitoring of Air quality is being conducted by APNRL on monthly basis. Review of air quality monitoring results revealed compliance to NAAQS. Ambient Air monitoring reports for the month of March 2021 is enclosed as Annexure XIII.
24	Provision shall be made for the housing of construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care crèche etc, The housing may be in the form of temporary structure to be removed after the completion of the project.	Plant is in operational condition and local labors are coming from nearby villages.
25	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded EC and copies of clearance letter are available with the SPCB/committee and	Complied.

	may also be seen at Website of the MoEF at http://envfor.nic.in.	9
26	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat Zila Praised/Municipal Corporation, urban local body and the local NGO, is any from whom suggestion/representation, if any were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Complied.
27	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	A Environmental Management Cell is being operational onsite to ensure effective implementation of specific EMPs. Organization chart of Environmental Management Cell enclosed as Annexure XIV.
28	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the RO of MoEF the respective zonal office of CPCB and the SPCB the criteria pollutant level namely SPM, RSPM, SO2, NOx (ambient level as stack emission) shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	The updated compliance status of the stipulated EC conditions along with monitored data has been displayed at the company website. The monitoring data (SPM, RSPM, SO2, NOx) for both ambient air quality and chimney emissions is being displayed at the main gate of the company.  Status of compliance of the stipulated EC conditions has been uploaded on company website for the period of April 2020 to September 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 (April 2020 to September 2020) for the project along with environmental monitoring data submitted to MoEF RO at Ranchi vide letter No MOE&F,RNC/HYC/KKJ/231220/01 dated 23 <sup>th</sup> Dec 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 <sup>th</sup> 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, SO2, NOx) for both ambient air quality and chimney emissions is being displayed at the main gate of the company. However Half yearly progress report is being sent to RO office, Ranchi on regular basis as per the requirement & uploaded on company website.

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



# CODEL

Correction   Correction   Correction   Contamination   Contamination	DATA SHEET DCEM2100 DUST MONITOR			William Calendary Company
DATA SHEET DCEM2100 DUST MONITOR	DATA SHEET DCEM2100 DUST MONITOR  GENERAL  1. Make Codel, UK. 2. Model DCEM2100 DUST Monitor 3. Type In-Situ Non contract cross duet type. 4. Oty of units 2 No HNEIOCO003  FEATURES 6 Range 0-100% Opacity, 0-999mg/m3, 0-999mg/m3 (Pully site s 7 Min, detectable conc. I mg/m3 8 Measurement Units Pully selectable units-, mg/m3 (measured), mg/m3 (Norm opacity (%)) 9 Measurement averaging Fully selectable in range 10 sec to 30 days. 9 Measurement averaging Fully selectable in range 10 sec to 30 days. 10 Response time 90% in 5 seconds. 11 Auto/manual calibration In built automatic zero and span calibration 12 Accuracy 4-0.2% Opacity of measurement 12 Accuracy 4-0.2% Opacity of measurement 13 Drift Less than 1% per month 4-0.1% opacity 1/6 Opacity		She She	
DATA SHEET DCEM2100 DUST MONITOR	DATA SHEET DCEM2100 DUST MONITOR	# 🦂		
GENERAL  L Make Codel, UK.  2. Model DCEM2100 Dust Monitor  3. Type In-Situ Non contact cross duct type  4. Qty of units 2 No  5. Tag No. HNE10CQ003  FEATURES  6 Range 0-100% Opacity, 0-999mg/m3, 0-999mg/Nn3 (Fully site set  7 Min. detectable conc. Img/m3  8 Measurement Units Pully selectable units-, mg/m3 (measured), mg/Nm3(Norm 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 1-0-2% Opacity of measurement  13 Drift Less than 1% per month  14 Resolution 1-0-1% opacity  15 Linearity 1-0-1% of full scale 1-0-1% opacity  16 Repeatability 1-0-1% opacity  17 Power supply 88 -264 VAC, 50-60Hz, 125 VA  18 Remote/Local control unit detection  20 Correction control shall missilignment detection for contamination for contamination for contamination for contamination for contamination for contamination material and Enclosures  DESIGN CONDITIONS  21 Error Diagnostics Dirty optics, Misalignment, Valve 1 closed, Valve 2 closed the error conditions  Pully sealed aluminum enclosures to IP 66  Automatic in fer material fully sealed aluminum enclosures to IP 66  Abuser mounting Analyser can be mounted in Chinney at Elevation of 9: Plass and mounting Inardware  29 Pail safe shutters Built in Converter Model: PCIMR Make Precision Converter Model PCIMR Make Precision Converter Model	GENERAL  L Make Codel, UK.  2. Model DCEM2100 Dust Monitor  3. Type In-Situ Non contact cross duet type  4. Qty of units 2 No  5. Tag No. HNE10CQ003  FEATURES  6 Range 0-100% Opacity, 0-999ng/m3, 0-999ng/Nm3 (Fully site 3 Polly selectable units-, mg/m3 (measured), mg/Nm3(Norropacity/%)  9 Measurement Units Fully selectable in range 10sec to 30 days.  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 1-0.2% Opacity of measurement.  13 Deift Less than 1% per month.  14 Resolution 1-0.1% opacity  15 Linearity 1-0.1% offull scale.  16 Repentability 1-0.1% opacity  17 Power supply 88 - 264 VAC, 50-60Hz, 125 VA  18 Remote/Local control unit detection  20 Correction contamination for contamination material and Enclosures DESIGN CONDITIONS  21 Error Diagnostics Dirty optics, Misalignment, Valve 1 closed, Valve 2 closed the error conditions.  22 Construction material and Enclosures 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 CONNECTIONS & DIMENSIONS  27 Analyzer mounting details Suitable for 0.5 to 12m duct/stack inner diameter  28 Path length Suitable for 0.5 to 12m duct/stack inner diameter  29 Fail safe shutters Built in Included in supply.  30 Air Purges Air purges for continuous air supply to instrument provided and mounting hardware  32 Temp, transmitter 24 VDC Supply Make: Precision Converter Model: PCHIMR	l. γ≓1.		r CODEI
GENERAL  L Make Codel, UK.  2. Model DCEM2100 Dust Monitor  3. Type In-Situ Non contact cross duct type  4. Qty of units 2 No  5. Tag No. HNE10CQ003  FEATURES  6 Range 0-100% Opacity, 0-999mg/m3, 0-999mg/Nn3 (Fully site set  7 Min. detectable conc. Img/m3  8 Measurement Units Pully selectable units-, mg/m3 (measured), mg/Nm3(Norm 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 1-0-2% Opacity of measurement  13 Drift Less than 1% per month  14 Resolution 1-0-1% opacity  15 Linearity 1-0-1% of full scale 1-0-1% opacity  16 Repeatability 1-0-1% opacity  17 Power supply 88 -264 VAC, 50-60Hz, 125 VA  18 Remote/Local control unit detection  20 Correction control shall missilignment detection for contamination for contamination for contamination for contamination for contamination for contamination material and Enclosures  DESIGN CONDITIONS  21 Error Diagnostics Dirty optics, Misalignment, Valve 1 closed, Valve 2 closed the error conditions  Pully sealed aluminum enclosures to IP 66  Automatic in fer material fully sealed aluminum enclosures to IP 66  Abuser mounting Analyser can be mounted in Chinney at Elevation of 9: Plass and mounting Inardware  29 Pail safe shutters Built in Converter Model: PCIMR Make Precision Converter Model PCIMR Make Precision Converter Model	GENERAL  L Make Codel, UK.  2. Model DCEM2100 Dust Monitor  3. Type In-Situ Non contact cross duet type  4. Qty of units 2 No  5. Tag No. HNE10CQ003  FEATURES  6 Range 0-100% Opacity, 0-999ng/m3, 0-999ng/Nm3 (Fully site 3 Polly selectable units-, mg/m3 (measured), mg/Nm3(Norropacity/%)  9 Measurement Units Fully selectable in range 10sec to 30 days.  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 1-0.2% Opacity of measurement.  13 Deift Less than 1% per month.  14 Resolution 1-0.1% opacity  15 Linearity 1-0.1% offull scale.  16 Repentability 1-0.1% opacity  17 Power supply 88 - 264 VAC, 50-60Hz, 125 VA  18 Remote/Local control unit detection  20 Correction contamination for contamination material and Enclosures DESIGN CONDITIONS  21 Error Diagnostics Dirty optics, Misalignment, Valve 1 closed, Valve 2 closed the error conditions.  22 Construction material and Enclosures 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 CONNECTIONS & DIMENSIONS  27 Analyzer mounting details Suitable for 0.5 to 12m duct/stack inner diameter  28 Path length Suitable for 0.5 to 12m duct/stack inner diameter  29 Fail safe shutters Built in Included in supply.  30 Air Purges Air purges for continuous air supply to instrument provided and mounting hardware  32 Temp, transmitter 24 VDC Supply Make: Precision Converter Model: PCHIMR	logit u.	Websit Mark	REF. DCEM2100/DS
1.   Make   Codel, UK.	L.   Make   DCEM2100 Dust Monitor	e garashdadi	D	
DCEM2100 Dust Monitor	2. Model 3. Type In-Situ Non contact cross duch type 4. Qty of units 5. Tag No. HNE10CQ003  FEATURES 6 Range 0-100% Opacity .0-999mg/m3, 0-999mg/Nim3 (Fully site s 7 Min. detectable conc. 1 mg/m3 8 Measurement Units 9 Measurement units 10 Response time 90% in 5 seconds, 11 mg/m3 (measured) mg/Nm3(Norm 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 1-0.1% opacity 13 Drift Less than 1% per month 14 Resolution 1-0.1% of full scale 14 Resolution 1-0.1% of full scale 16 Repeatability 1-0.1% opacity 17 Power supply 88 - 264 VAC . 50-60Hz, 125 VA 18 Remote/Local control unit 2 Line X 32 character alpha-numeric LCD displays with 4 k 19 Automatic misalignment detection 20 Correction for Contamination 21 Error Diagnostics Dirty optics, Misalignment Valve 1 closed, Valve 2 closed the error conditions. 22 Construction material and Enclosures  DESIGN CONDITIONS 23 Source Modulated high intensity LED 24 Detector Silicon photocell 25 Ambient air temp. 20deg. Cto 60 deg. C  CONNECTIONS & DIMENSIONS 27 Analyzer mounting details Suitable for 0.5 to 12m duct/stack inner diameter  ACCESSORIES 29 Fail safe shutters Built in Interconnecting cables and mounting hardware 30 Temp, transmitter 24 VDC Supply Make: Precision Converter Model: PCHIMR  24 VDC Supply Make: Precision Converter Model: PCHIMR  25 Temp, transmitter 24 VDC Supply Make: Precision Converter Model: PCHIMR	-	The state of the s	Control (197) 19 Contro
Type	Type	Aminosophic International	The state of the s	
5. Tag No. HNEIOCO003  FEATURES 6 Range 0-100% Opacity , 0-999mg/m3, 0-999mg/km3 (Fully site se 7 Min. detectable conc. 1 mg/m3 8 Measurement Units opacity(%) 9 Measurement averaging Fully selectable units-, mg/m3 (measured) , mg/Nm3(Norm 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	A	3350	The second secon	
FEATURES  Range  O-100% Opacity , 0-999mg/m3, 0-999mg/Nm3 (Fully site set of the set of	Features   Features	4.		A STATE OF THE PARTY OF THE PAR
FEATURES 6 Range 0-100% Opacity 0-999mg/m3, 0-999mg/m3 (Fully site so 7 Min. detectable conc. I mg/m3 8 Measurement Units Fully selectable units-, mg/m3 (measured) , mg/Nm3(Norm 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 H-0.2% Opacity of measurement 13 Drift Less than 1% per month 14 Resolution H-0.1% opacity 15 Linearity H-0.1% opacity 16 Repentability H-0.1% opacity 17 Power supply 88 - 264 VAC , 50-60Hz, 125 VA 18 Remote/Local control unit 3x Volt free SPCO contact rated at 50 VDC 1 Amp. 2 Line X 32 character alpha-numeric LCD displays with 4 ke provided in the instrument as a warning signal of misalignment detection for contamination for contamination material and Enclosures  DESIGN CONDITIONS 23 Source Modulated high intensity LED 24 Detector Sillicon photocell 25 Ambient air temp 20deg.C to 60 deg.C 26 Gas Temperature Upto 850 deg.c  CONNECTIONS & DIMENSIONS 27 Analyzer mounting details 28 Path length Apalyser can be mounted in Chimney at Elevation of 9 Please refer drawing for analyser mounting flange details 29 Fail safe shutters 30 Air Purges 31 Included in supply. 32 AVOC Supply Make: Precision Converter Model: PCHMR	FEATURES  6 Range  7 Min. detectable conc. 1 mg/m3  8 Mcasurement Units Pully selectable units-, mg/m3 (neasured), mg/Nm3 (Norm opacity(%))  9 Measurement averaging Fully selectable in range 10sec to 30 days.  10 Response time 90% in 5 seconds. 11 Auto/manual calibration 12 Accuracy H-0.2% Opacity of measurement 13 Drift Less than 1% per month 14 Resolution 15 Linearity 17-0.1% of full scale 16 Repeatability H-0.1% opacity 17 Power supply 88 - 264 VAC., 50-60Hz, 125 VA 18 Remote/Local control unit 20 Correction for contamination 21 Error Diagnostics Dirty optics, Misalignment, Valve 1 closed, Valve 2 closed the error conditions. 22 Construction material and Enclosures DESIGN CONDITIONS 23 Source Modulated high intensity LED 24 Detector 25 Ambient air temp. 20 Gas Temperature Upto 850 deg.c  CONNECTIONS & DIMENSIONS 27 Analyzer mounting details Pail safe shutters Built in In pull automatic misulign ment details Pail safe shutters Built in In pull automatic misulign ment details In pull sealed all and contamination check CONNECTIONS & DIMENSIONS 27 Analyzer mounting details Path length Suitable for 0.5 to 12m duct/stack inner diameter  Air purges Air purges Air purges for continuous air supply to instrument provided Included in supply.  Air purges Air purges for continuous air supply to instrument provided Included in supply.  Air purges for continuous air supply to instrument provided Included in supply.  Air Purges and mounting lardware  32 Temp. transmitter  24 VDC Supply Make: Precision Converter Model: PCHMR	5.		
Min. detectable conc.   I mg/m3   Fully selectable units-, mg/m3 (measured)   mg/Nm3 (Norm opacity(%)	Min. detectable conc.   I mg/m3   Fully selectable units., mg/m3 (measured), mg/Nm3(Norm opacity(%))			FEATURES
Min. detectable conc.	Min. detectable conc.   Img/m3   Measurement Units   Fully selectable units-, mg/m3 (measured), mg/Nm3(Norm opacity(%))			0-100% Opacity , 0-999mg/m3, 0-999mg/Nm3 (Fully site se
opacity(%)  Measurement averaging Fully selectable in range 10sec to 30 days.  Response time 90% in 5 seconds.  In built automatic zero and span calibration 4-0.2% Opacity of measurement 4-0.2% Opacity of measurement 4-0.2% Opacity of measurement 4-0.2% Opacity of measurement 4-0.1% opacity	opacity(%)  10 Response time 10 Response time 11 Auto/manual calibration 12 Accuracy 13 Drift Less than 1% per month 14 Resolution 15 Linearity 16 Repentability 17 Power supply 18 Remote/Local control unit 19 Automatic misalignment 19 Automatic misalignment 19 Automatic misalignment 19 detection 20 Correction 21 Error Diagnostics 22 Construction 23 Source 24 Detector 25 Ambient air temp. 26 Gas Temperature 27 Opacity(%) 28 Path length 29 Fail safe shutters 20 Hasses and mounting lardware 20 Path length 21 Source 22 Analyzer mounting detection 23 Source 24 Detector 25 Ambient air temp. 26 Gas Temperature 27 Path length 28 Path length 30 Air Purges 31 Interconnecting cables and mounting lardware 30 Air purges 31 Interconnecting cables and mounting lardware 32 Temp. transmitter 34 VDC Supply Make: Precision Converter Model: PCHMR	2017/2017		l mg/m3
Measurement averaging   Fully selectable in range 10 sec to 30 days	Measurement averaging   Fully selectable in range 10sec to 30 days	8	Measurement Units	Fully selectable units-, mg/m3 (measured), mg/Nm3(Norm
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 3 v Volt free SPCO contact rated at 50 VDC 1 Amp 2 Line X 32 character alpha-numeric LCD displays with 4 ke 20 Correction for contamination Provided in the instrument as a warning signal of misalignment detection	10 Response time 90% in 5 seconds.  11 Auto/manual calibration In built automatic zero and span calibration 12 Accuracy +/-0.2% Opacity of measurement 13 Drift Less than 1% per month 14 Resolution +/-0.1% opacity 15 Linearity   /-0.1% of full scale   16 Repentability +/-0.1% opacity   17 Power supply 88 - 264 VAC, 50-60Hz, 125 VA 18 Remote/Local control unit 3 v Volt free SPCO contact rated at 50 VDC 1 Amp. 2 Line x32 character alpha-numeric LCD displays with 4 k 19 Automatic misalignment detection   20 Correction for contamination   21 Error Diagnostics   Dirty optics, Misalignment valve 1 closed, Valve 2 closed the error conditions. 21 Error Diagnostics   Dirty optics, Misalignment Valve 1 closed, Valve 2 closed the error conditions. 22 Construction material and Enclosures   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   27 Analyzer mounting details   Suitable for 0.5 to 12m duct/stack inner diameter   28 Path length   Suitable for 0.5 to 12m duct/stack inner diameter   30 Air Purges   Air purges   Air purges for continuous air supply to instrument provided   31 Interconnecting cables and mounting lardware   24 VDC Supply   32 Temp. transmitter   24 VDC Supply   34 VDC Supply   Make: Precision Converter   36 Model PCHMR			
Automanual calibration   In built automatic zero and span calibration   12   Accuracy   14-0.2% Opacity of measurement   14   Resolution   14-0.1% opacity   15   Linearity   17-0.1% opacity   17-0.1% opacity   18   Linearity   17-0.1% opacity   17-0.1% opacity   18   Repentability   17-0.1% opacity   18   Remote/Local   control   unit   25   VA   Sa - 264 VAC. 50-60Hz, 125 VA   18   Remote/Local   control   unit   25   Volt free SPC Ocontact rated at 50 VDC 1 Amp.   2 Line X 32 character alpha-numeric LCD displays with 4 ke   19   Automatic misalignment   Provided in the instrument as a warning signal of misalignment   detection   Automatic window contamination check     Correction   for contamination   Correction   for contamination   Dirty optics, Misalignment, Valve 1 closed, Valve 2 closed   the error conditions.   Fully sealed aluminum enclosures to IP 66     DESIGN CONDITIONS     Detector   Silicon photocell     Silicon photocell     24   Detector   Silicon photocell     Detector   Silicon photocell     25   Ambient air temp.   20deg. C to 60 deg. C     26   Gas Temperature   Upto 850 deg.     Upto 850 deg.	Auto/manual calibration   In built automatic zero and span calibration	***************************************		Fully selectable in range 10sec to 30 days
12 Accuracy	12 Accuracy	THE PERSON NAMED IN COLUMN		
13 Drift Less than 1% per month 14 Resolution +/-0.1% opacity 15 Linearity 1/-0.1% opacity 16 Repentability +/-0.1% opacity 17 Power supply 88 – 264 VAC., 50-60Hz, 125 VA 18 Remote/Local control unit 2 Isolated 2x 4-20 mA, 500 ohms outputs fully configurable. 3 x Volt free SPCO contact rated at 50 VDC 1 Amp. 2 Line X 32 character alpha-numeric LCD displays with 4 ke 19 Automatic misalignment detection 20 Correction for contamination 21 Error Diagnostics Dirty optics, Misalignment, Valve 1 closed, Valve 2 closed the error conditions. 22 Construction material and Enclosures bully sealed aluminum enclosures to IP 66 23 Source Modulated high intensity LED 24 Detector Silicon photocel Upto 850 deg.c 25 Ambient air temp 20deg.C to 60 deg.C 26 Gas Temperature Upto 850 deg.c 27 CONNECTIONS & DIMENSIONS 28 Path length Suitable for 0.5 to 12m duct/stack inner diameter 4CCESSORIES 30 Air Purges Air purges for continuous air supply to instrument provided Included in supply. 30 Air Purges 31 Included in supply 32 Temp. transmitter 24 VDC Supply Make: Precision Converter Model: PCHMR	13 Drift Less than 1% per month.  14 Resolution +/-0.1% opacity 15 Linearity 1/-0.1% opacity 16 Repentability +/-0.1% opacity 17 Power supply 88 – 264 VAC _ 50-60Hz, 125 VA 18 Remote/Local control unit 3 × Volt free SPCO contact rated at 50 VDC 1 Amp. 2 Line X 32 character alpha-numeric LCD displays with 4 k 19 Automatic misalignment detection 20 Correction for contamination 21 Error Diagnostics Dirty optics, Misalignment Valve 1 closed, Valve 2 closed the error conditions. 22 Construction material and Enclosures 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 27 CONNECTIONS & DIMENSIONS 28 Path length Suitable for 0.5 to 12m duct/stack inner diameter 29 Fail safe shutters 30 Air Purges Air purges for continuous air supply to instrument provided in Linear Converter Model: PCHMR	AND DESCRIPTION OF THE PARTY NAMED IN		In built automatic zero and span calibration
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 Salignment detection	14. Resolution #/-0.1% opacity 15. Linearity 1/- 0.1% of full scale 16. Repeatability #-0.1% opacity 17. Power supply 88 – 264 VAC _, 50-60Fiz, 125 VA 18. Remote/Local control unit 3 × Volt free SPCO contact rated at 50 VDC 1 Amp. 2 Line X 32 character alpha-numeric LCD displays with 4 k 19. Automatic misalignment detection for contamination for contamination 20. Correction for Automatic window contamination check contamination 21. Error Diagnostics Dirty optics, Misalignment Valve 1 closed, Valve 2 closed the error conditions. 22. Construction material and Enclosures 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 Suitable for 0.5 to 12m duct/stack inner diameter  CONNECTIONS & DIMENSIONS 28. Path length Suitable for 0.5 to 12m duct/stack inner diameter  Air purges Air purges for continuous air supply to instrument provided 31. Interconnecting cables and mounting hardware 32. Temp. transmitter  24. VDC Supply Make: Precision Converter Model: PCHMR	The Principle of the State of the		H-0.2% Opacity of measurement
15	15	Land of the state	11 11 11 11 11 11 11 11 11 11 11 11 11	
16	16	THE RESERVE AND THE RESERVE AN	The state of the s	17-0.1% opacity
Power supply   Remote/Local control unit   Solated 2x 4-20 mA, 500 ohms outputs fully configurable. 3 x Volt free SPCO contact rated at 50 VDC 1 Amp. 2 Line X 32 character alpha-numeric LCD displays with 4 ke	Remote/Local control unit	The second second		
Remote/Local control unit	Remote/Local control solated 2x 4-20 mA, 500 chms outputs fully configurable. 3 x Volt free SPCO contact rated at 50 VDC 1 Amp. 2 Line X 32 character alpha-numeric LCD displays with 4 k Provided in the instrument as a warning signal of misalignment detection.  20 Correction for contamination.  21 Error Diagnostics Dirty optics, Misalignment. Valve 1 closed, Valve 2 closed the error conditions.  22 Construction material and Enclosures  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.  28 Path length Suitable for 0.5 to 12m duct/stack inner diameter  ICCESSORIES  29 Fail safe shutters  30 Air Purges Air purges for continuous air supply to instrument provided Included in supply.  Analyzer can be mounted in supply to instrument provided Included in supply.  Air purges for continuous air supply to instrument provided Included in supply.  Ake: Precision Converter  Model: PCHMR	THE RESERVE AND ADDRESS OF THE PARTY NAMED IN	Power supply	
Automatic misalignment detection  Correction for contamination for contamination  Error Diagnostics Dirty optics, Misalignment, Valve 1 closed, Valve 2 closed the error conditions.  Construction material and Enclosures  DESIGN CONDITIONS  Source Modulated high intensity LED  Ambient air temp 20deg. C to 60 deg. C  CONNECTIONS & DIMENSIONS  Analyzer mounting details Path length Suitable for 0.5 to 12m dict/stack inner diameter  CESSORIES  Path length Air purges Air purges for continuous air supply to instrument provided  Included in the instrument as a warning signal of misalignment details.  Provided in the instrument as a warning signal of misalignment with the instrument as a warning signal of misalignment and the misalignment and the misalignment.  Automatic misalignment as a warning signal of misalignment with contamination check.  Automatic misalignment as a warning signal of misalignment check.  Construction material Dirty optics, Misalignment, Valve 1 closed, Valve 2 closed the error conditions.  Pully sealed aluminum enclosures to IP 66  and Enclosures  Modulated high intensity LED  24 Detector Silicon photocell  Detector Silicon photocell  Ambient air temp 20deg. C to 60 deg. C  CONNECTIONS & DIMENSIONS  Analyzer mounting details Please refer drawing for analyser mounting flange details.  Suitable for 0.5 to 12m dict/stack inner diameter  Air purges  Air purges for continuous air supply to instrument provided  Included in supply.  Make: Precision Converter  Model: PCHMR	Automatic misalignment detection  Correction for contamination for contamination  Error Diagnostics Dirty optics, Misalignment, Valve 1 closed, Valve 2 closed the error conditions.  Construction material and Enclosures  DESIGN CONDITIONS  Source Modulated high intensity, LED  Silicon photocell  Silicon photocell  Analyzer mounting details Please refer drawing for analyser mounting flange details,  Path length Automatic misalignment warning signal of misalignment warning and misalignment with the error conditions.  Pully sealed aluminum enclosures to IP 66  Modulated high intensity, LED  Silicon photocell  23 Source Modulated high intensity, LED  24 Detector Silicon photocell  25 Ambient air temp 20deg, C to 60 deg, C  CONNECTIONS & DIMENSIONS  27 Analyzer mounting details Please refer drawing for analyser mounting flange details,  Suitable for 0.5 to 12m duct/stack inner diameter  ICCESSORIES  Path length Suitable for 0.5 to 12m duct/stack inner diameter  Included in supply  Make: Precision Converter  Model: PCHMIR	THE REAL PROPERTY.	Remote/Local control	Isolated 2x 4-20 mA, 500 ohms outputs fully configurable.  3 x Volt free SPCO contact rated at 50 VDC 1 Amp.
contamination  21 Error Diagnostics Dirty optics, Misalignment, Valve 1 closed, Valve 2 closed the error conditions.  22 Construction material and Enclosures  23 Enclosures  24 Detector Silicon photocell  25 Ambient air temp 20deg, C to 60 deg, C  26 Gas Temperature Upto 850 deg, c  27 Analyzer mounting Analyser can be mounted in Chimney at Elevation of 9 details Please refer drawing for analyser mounting flange details,  28 Path length Suitable for 0.5 to 12m duct/stack inner diameter.  4CCESSORIES  29 Fail safe shutters Built in  30 Air Purges Air purges for continuous air supply to instrument provided Included in supply.  31 Interconnecting cables and mounting liardware  32 Temp, transmitter 24 VDC Supply Make: Precision Converter Model: PCHMR	contamination  21 Error Diagnostics Dirty optics, Misalignment. Valve 1 closed, Valve 2 closed the error conditions  22 Construction material and Enclosures  23 Enclosures  24 Detector Silicon photocell  25 Ambient air temp 20deg.C to 60 deg.C  26 Gas Temperature Upto 850 deg.c  27 Analyzer mounting Analyser can be mounted in Chimney at Elevation of 9 details Please refer drawing for analyser mounting flange details.  28 Path length Suitable for 0.5 to 12m duct/stack inner diameter  4CCESSORIES  29 Fail safe shutters Built in  30 Air Purges Air purges for continuous air supply to instrument provided and mounting liardware  32 Temp. transmitter 24 VDC Supply Make: Precision Converter Model: PCHMR	19		Provided in the instrument as a warning signal of misalignment
Error Diagnostics   Dirty optics, Misalignment, Valve 1 closed, Valve 2 closed the error conditions	Error Diagnostics	20	Correction for	Automatic window contamination check
Construction material and Enclosures   Fully sealed aluminum enclosures to IP 66	Construction material and Enclosures   Fully sealed aluminum enclosures to IP 66	21		Dirty optics, Misalignment, Valve 1 closed, Valve 2 closed
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 Please refer drawing for analyser mounting flange details. 28 Path length Suitable for 0.5 to 12m duct/stack inner diameter.  ICCESSORIES 29 Fail safe shutters Built in 30 Air Purges Air purges for continuous air supply to instrument provided 31 Interconnecting cables and mounting liardware 32 Temp, transmitter 24 VDC Supply Make: Precision Converter Model: PCHMR	23   Source   Modulated high intensity LED	22		
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 Please refer drawing for analyser mounting flange details. 28 Path length Suitable for 0.5 to 12m duct/stack inner diameter.  ICCESSORIES  29 Fail safe shutters Built in 30 Air Purges Air purges for continuous air supply to instrument provided 31 Interconnecting cables and mounting liardware 32 Temp, transmitter 24 VDC Supply Make: Precision Converter Model: PCHMR	24 Detector Silicon photocell 25 Ambient air temp20deg.C to 60 deg.C 26 Gas Temperature Upto 850 deg.c  CONNECTIONS & DIMENSIONS  27 Analyzer mounting details Please refer drawing for analyser mounting flange details. 28 Path length Suitable for 0.5 to 12m duct/stack inner diameter.  ICCESSORIES  29 Fail safe shutters Built in 30 Air Purges Air purges for continuous air supply to instrument provided 31 Interconnecting cables and mounting liardware 32 Temp. transmitter 24 VDC Supply Make: Precision Converter Model: PCHMR			
25 Ambient air temp 20deg.C to 60 deg.C  26 Gas Temperature Upto 850 deg.c  CONNECTIONS & DIMENSIONS  27 Analyzer mounting details Please refer drawing for analyser mounting flange details.  28 Path length Suitable for 0.5 to 12m duct/stack inner diameter.  4CCESSORIES  29 Fail sufe shutters Built in  30 Air Purges Air purges for continuous air supply to instrument provided Included in supply:  31 Interconnecting cables and mounting liardware  32 Temp. transmitter 24 VDC Supply Make: Pregision Converter Model: PCHMR	25 Ambient air temp 20deg.C to 60 deg.C  26 Gas Temperature Upto 850 deg.c  CONNECTIONS & DIMENSIONS  27 Analyzer mounting details Please refer drawing for analyser mounting flange details.  28 Path length Suitable for 0.5 to 12m duct/stack inner diameter  ACCESSORIES  29 Fail safe shutters Built in  30 Air Purges Air purges for continuous air supply to instrument provided  31 Interconnecting cables and mounting liardware  32 Temp. transmitter 24 VDC Supply Make: Pregision Converter Model: PCHMR	management of the same of the		Modulated high intensity LED
26 Gas Temperature Upto 850 deg.c  CONNECTIONS & DIMENSIONS  27 Analyzer mounting details Analyser can be mounted in Chimney at Elevation of 9 Please refer drawing for analyser mounting flange details.  28 Path length Suitable for 0.5 to 12m duct/stack inner diameter.  JCCESSORIES  29 Fail sufe shutters Built in 30 Air Purges Air purges for continuous air supply to instrument provided  31 Interconnecting cables and mounting hardware  32 Temp, transmitter 24 VDC Supply Make: Precision Converter Model: PCHMR	26 Gas Temperature Upto 850 deg.c  CONNECTIONS & DIMENSIONS  27 Analyzer mounting details Please refer drawing for analyser mounting flange details.  28 Path length Suitable for 0.5 to 12m duct/stack inner diameter.  JCCESSORIES  29 Fail safe shutters Built in  30 Air Purges Air purges for continuous air supply to instrument provided  31 Interconnecting cables and mounting hardware  32 Temp. transmitter 24 VDC Supply Make: Pregision Converter Model: PCHMR		The state of the s	Silicon photocell
CONNECTIONS & DIMENSIONS  27 Analyzer mounting details Analyser can be mounted in Chimney at Elevation of 9 Please refer drawing for analyser mounting flange details.  28 Path length Suitable for 0.5 to 12m duct/stack inner diameter.  ICCESSORIES  29 Fail sufe shutters Built in 30 Air Purges Air purges for continuous air supply to instrument provided  31 Interconnecting cables and mounting hardware  32 Temp. transmitter 24 VDC Supply Make: Precision Converter Model: PCHMR	CONNECTIONS & DIMENSIONS  27 Analyzer mounting details Please refer drawing for analyser mounting flange details.  28 Path length Suitable for 0.5 to 12m duct/stack inner diameter.  ICCESSORIES  29 Fail safe shutters Built in  30 Air Purges Air purges for continuous air supply to instrument provided  31 Interconnecting cables and mounting hardware  32 Temp. transmitter 24 VDC Supply Make: Pregision Converter Model: PCHMR	The second section of the second second		
27 Analyzer mounting details Please refer drawing for analyser mounting flange details.  28 Path length Suitable for 0.5 to 12m duct/stack inner diameter  30 Air Purges Air purges for continuous air supply to instrument provided Included in supply.  31 Interconnecting cables and mounting liardware  32 Temp, transmitter 24 VDC Supply Make: Precision Converter Model: PCHMR	27 Analyzer mounting details Please refer drawing for analyser mounting flange details.  28 Path length Suitable for 0.5 to 12m duct/stack inner diameter.  30 Air Purges Air purges for continuous air supply to instrument provided Interconnecting cables and mounting hardware  32 Temp. transmitter 24 VDC Supply Make: Pregision Converter Model: PCHMR			Upto 850 deg.c
details Please refer drawing for analyser mounting flange details.  28 Path length Suitable for 0.5 to 12m duct/stack inner diameter  4CCESSORIES  29 Fail safe shutters Built in  30 Air Purges Air purges for continuous air supply to instrument provided  31 Interconnecting cables and mounting hardware  32 Temp. transmitter 24 VDC Supply Make: Precision Converter Model: PCHMR	details Please refer drawing for analyser mounting flange details.  28 Path length Suitable for 0.5 to 12m duct/stack inner diameter.  4CCESSORIES  29 Fail safe shutters Built in  30 Air Purges Air purges for continuous air supply to instrument provided.  31 Interconnecting cables and mounting hardware.  32 Temp. transmitter 24 VDC Supply Make: Precision Converter Model: PCHMR			
28 Path length Suitable for 0.5 to 12m duct/stack inner diameter  JCCESSORIES  29 Fail sufe shutters Built in  30 Air Purges Air purges for continuous air supply to instrument provided  31 Interconnecting cables and mounting liardware  32 Temp, transmitter 24 VDC Supply Make: Precision Converter Model: PCHMR	28 Path length Suitable for 0.5 to 12m duct/stack inner diameter  JCCESSORIES  29 Fail safe shutters Built in  30 Air Purges Air purges for continuous air supply to instrument provided  31 Interconnecting cables and mounting hardware  32 Temp. transmitter 24 VDC Supply Make: Precision Converter Model: PCHMR		details	Analyser can be mounted in Chimney at Elevation of 9: Please refer drawing for analyser mounting flame details
29 Fail sufe shutters Built in 30 Air Purges Air purges for continuous air supply to instrument provided 31 Interconnecting cables and mounting liardware 32 Temp, transmitter 24 VDC Supply Make: Precision Converter Model: PCHMR	29 Fail safe shutters Built in 30 Air Purges Air purges for continuous air supply to instrument provided 31 Interconnecting cables and mounting liardware 32 Temp. transmitter 24 VDC Supply Make: Precision Converter Model: PCHMR			Suitable for 0.5 to 12m duct/stack inner diameter
30   Air Purges   Air purges for continuous air supply to instrument provided	30   Air Purges   Air purges for continuous air supply to instrument provided   31   Interconnecting cables and mounting hardware   Included in supply.			
31 Interconnecting cables and mounting hardware  32 Temp. transmitter 24 VDC Supply Make: Precision Converter Model: PCHMR	31 Interconnecting cables and mounting hardware 32 Temp. transmitter 24 VDC Supply Make: Precision Converter Model: PCHMR	The second liverage of		
31 Interconnecting cables and mounting liardware  32 Temp. transmitter  24 VDC Supply Make: Precision Converter Model: PCHMR	31 Interconnecting cables and mounting liardware  32 Temp. transmitter  24 VDC Supply Make: Pregision Converter Model: PCHMR			Air purges for continuous air supply to instrument provided
Make: Precision Converter  Model: PCHMR	Make: Pregision Converter Model: PCHMR		and mounting liardware	Included in supply.
Model: PCHMR	Model: PCHMR	32	Temp, transmitter	
	Range: 0.16.300 Deg G			Model: PCHMR
			31 131/3	

in and





#### Ref: GCEM40A0/DS/02

			Ref: GCEM40A0/DS/02			
		ATA SHI	[2] [1] [1] [2] [2] [2] [2] [2] [2] [2] [2] [2] [2			
	CO, SO2, 1	NOx GAS	SANALYSER			
GENE	RAL					
1.	Make		ernational Ltd., UK			
2.	Model/Article No		Series Article no GCEM40A0			
3.	Туре	Infrared Ab	sorption Analyser-In-Situ type			
4.	Qty	2 No.				
5.	Tag No.	SOx	HNE10CQ004			
		NOx	HNE10CQ001			
		CO	HNE10CQ002			
		V-5865	FEATURES			
6.	Range	CO: 0 to 100	00ppm, 0 to 1000mg/m3, 0 to 1000mg/Nm3			
(File)			000ppm, 0 to 1000mg/m3, 0 to 1000mg/Nm3,			
			000ppm, 0 to 1000mg/m3, 0 to 1000mg/Nm3,			
	1	CO2: 0 to 25				
		H2O:0 to 2				
		677	s are site selectable up to 3000 ppm			
7.	Min, detectable conc.		g/m3, 1mg/Nm3 for CO,SO2,NOx & 0.5% for CO2,H2O.			
8.	Measurement Units		able units-ppm or % by volume, mg/m3 (measured) and			
Š.	Tributar of the Control		Normalised to temperature, pressure, H2O & CO2)			
9.	Measurement averaging		fully selectable in range 10Sec to 1 hour			
10.	Response time (T90)		Detector less than 10 seconds, Calibration less than 200 seconds.			
11.	Auto & manual	In built and				
G	calibration	3017-00-7-7-10-1-1-1-1-1-1-1-1-1-1-1-1-1-				
12.	Function	Continuous	function			
13.	Accuracy	+/- 2% of m	neasured value for CO,SO2, NOx,& 0.5% for CO2 & H2O			
14.	Zero /span drift(24hrs)	Over all dri	Over all drift less than +/-2% per month			
15.	Repeatability	Less than 2	Less than 2% of span			
16.	Sensitivity	1 ppm for 0	CO,SO2,NOx, 0.5% for CO2,H2O			
17.	Linearity	Less than 2				
18.	LCD Display	LCD with b				
19.	Power supply		0-60Hz, +/-10% 400VA			
20.	Outputs	Keypad for configurable				
		1x data inv	Volt free contacts, SPCO rated at 50 volt 1A & alid output (System fault)			
21.	Serial Communications	RS232/RS4	485 Modbus O/P			
22.	Construction material and Enclosures		Electronic Housings (DDU): Corrosion resistant, epoxy coated Aluminium housing sealed to IP 66			

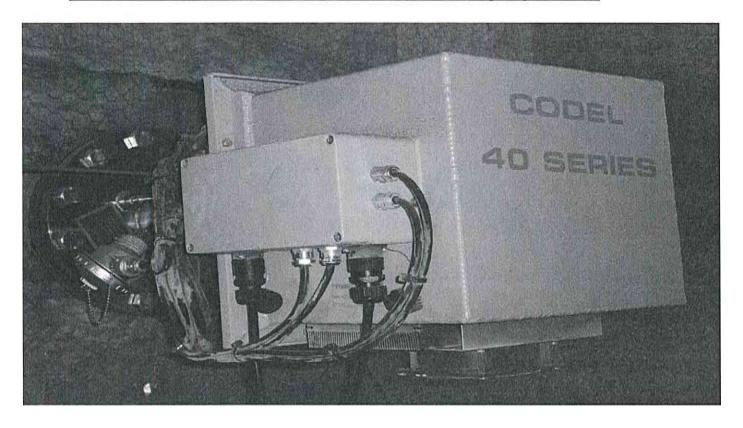
DESIG	GN CONDITIONS	A STATE OF THE STA
23.	Infrared source	Heater cartridge assembly
24.	Infrared detector	Lead selenid detecter
25.	Ambient air temp.	Transceiver unit 0 to 70 °C, Electronic unit (PSU & DDU) 0 to 60 °C
26	Flue gas temp.	Up to 350 deg.C

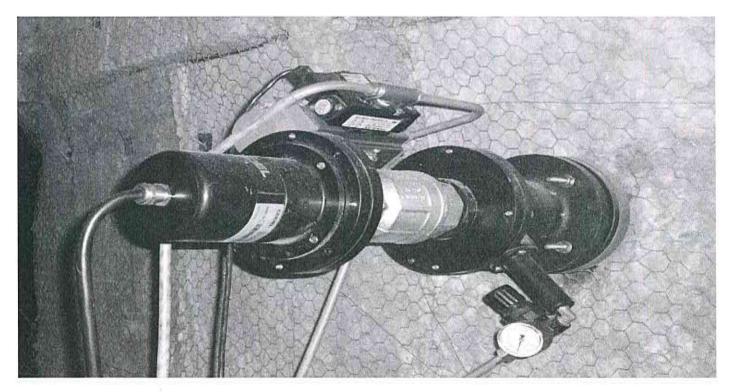




	VECTIONS & DIMENSIONS	
27	Analyser mounting details	Please refer drawing for analyser mounting flange details.  Mounting location on Chimney at 91 Mtrs Elevation.
28	Stack width	Suitable for duct/Stack inner diameter of more than 2000mm.
	ESSORIES	The same of the sa
29	Standard span gas for calibration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

# **Continuous emission monitoring system**







#### **ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY**

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

ANALYTICAL TEST REPORT

Atmosp	heric Pollution Test R	eport	URL(Unique Lab Report) N	o. TC78132120000293P	
Report Release Date	28th March 2021	20 W 17	Report ID	YBAEEL-210308 -12265	8 – S1
Sample Description	Stationary Source En	nission	Job code/ Ref. no.	YBAEEL/WA/L/A/Mar2	1/30
Type of Industry	Thermal Power Plant	1 200 80	Work Order No./ Date	3030005309 - 27/02/2021	
Issue to		<ul> <li>&amp; Natural Resource hind PGCIL Substat</li> <li>Jharkhand.</li> </ul>		Est thought in you	0.04
Sampling Period	16th March, 2021	DEPT N EVY	Mode of sample collect	tion Sampling team of YBAE	EL
Sampling Protocol	IS: 11255 & CPCB Gu	ideline (Lats/80/2013-	14)	Land State Comment	
Meteorological Cond.	W.C Clear	166199	RH % - 38%	Temp 29°C	F/X
Sample receipt Date	18/03/2021	Analysis Started on	18/03/2021 An	alysis completed on 26/03/2	2021

#### General Information

As observed while sa	mpling	As reported by customer		
Location	Sampling port hole	Type of fuel Used	Coal	
Platform	Permanent	Quantity of Fuel Used	154 Ton/Hr.	
Stack Description (Shape & Material )	Circular / RCC	Total production Capacity	270 MW	
Sampling port	Available	Height of Stack from ground level	275 mtr.	
Stack Identification	Unit - I	Inner Diameter of Stack	4.2 mtr.	
Height of port hole from Ground level	90 mtr.	Pollution Controlling Device	ESP (for PM)	

		Last Magnita			
SI	Parameter s	Test Method	Units	Results	Limits
1.	Stack gas Temperature	IS 11255 (Part 3)2008	k	386.0	- 100 (X)
2.	Stack gas Velocity	IS 11255 (Part 3)2008	m/s	28.3	
3.	Volumetric Flow Rate	IS 11255 (Part 3)2008	Nm³/hr	1065804.8	
3.	Particulate Matter (PM) at 6% O <sub>2</sub>	IS 11255 (Part 1)2009	mg/Nm³	47.5	50
4.	Sulphure Dioxide (SO <sub>2</sub> ) at 6% O <sub>2</sub>	IS 11255 (Part 2)2009	mg/Nm³	592.3	600
5.	Oxide of Nitrogen (as NO <sub>x</sub> ) at 6% O <sub>2</sub>	IS 11255 (Part 7)2005 RA 2012	mg/Nm³	390.2	450
6.	Carbon Monoxide (as CO)	IS 13270: 1992 (RA 2009)	%	< 0.2	
7.	Mercury (as Hg)	Lat's/80/2013-14	mg/Nm³	< 0.003 ppm	0.03

#### **Emission Rate**

1.	Particulate Matter (PM)	IS 11255 (Part 1)2009	Kg/hr	50.6	0 - T
2.	Sulphure Dioxide (SO <sub>2</sub> )	IS 11255 (Part 2)2009	Kg/hr	631.3	-
3.	Oxide of Nitrogen (as NO <sub>x</sub> )	IS 11255 (Part 7)2005 RA 2012	Kg/hr	415.8	

5. Oxide of it	itrogen (as NOx)	13 TT533 (Lauf 1/5003 KM 50TS	Kg/III	413.0		
	(e)	**End of Report**				
The state of the s	A STATE OF THE STA		S. P. C.	ALCE		
Remarks	Samples Comply v	vith the prescribed specification as per Thermal Pov	ver Plant.	The second secon		
Abbreviation	MDL : Minimum de	tection limit, BDL : Below detection limit,	10100	State of the Part of		
Note	The parameters ma	arked with * are not accredited by NABL.	* V/ IT (see	1000		
Specific contractual	All values are expre		evR.S	1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
notes	The results listed re	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 collec	ted shall be destroyed after 15 days from the date of	of issue of the certificate unless sp	ecified otherwise .		
2 N.W.V.		aboratory is limited to the invoiced amount				
		ejected to the Ranchi Jurisdiction	1 1 2385			
Just 1	Y Carl Steam	Bally 33 (23) (23)	118 11 040 250-	083 3		
. Te	sted by	Verified by		Issued by		
Amit K	umar Sinha	Brij Nandan Kumar A	thorized Signatory	Umesh Das		
Lat	Analyst	Section In-charge A+	mospharic Pollution	Technical Manager		
CHENTO	7.0.140/41		avar Eharati Analytical (	The state of the s		

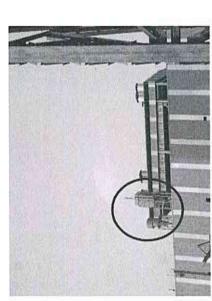
Branch Office : - Jamshedpur Dhanbad

- Jamshedpur | Dhanbad Yugant អាជីវិធីវិធីវិធី Analytical នៃ Pakur Main Office : Namkum Post Office, Sidro ប្រើប្រជុំ និង។ បាល Jinarkhand Ph: 098351-97960, 098357-86677, Email - ybaeel@gmail.com, Web - https://ybaeel.in

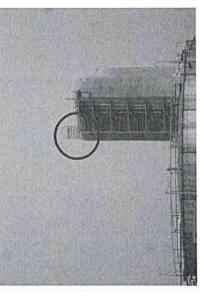


Bag Filter installed at Ash silo Bag Filter installed at Coal mill building

Bag filter at buffer hopper



**Dust suppression through Tanker** 



Fixed type DS system for coal Conveyor

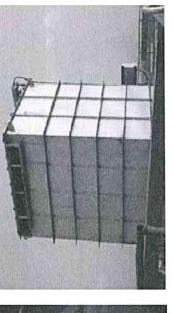


DE system at Coal Crusher House



Fixed type dust suppression system

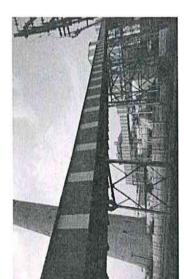
Closed type coal conveying system



Fixed type DS system at Coal Yard









# **Adhunik Power & Natural Resource Limited**

#### FLY ASH GENERATION & UTILIZATION FOR THE PERIOD OF APRIL 2020 TO MARCH 2021

		Ash	Generat	ion and Uti	lization		Mode	of Ash Utiliz	ation
SI. No.	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
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	APRIL	115606	52.34	60503.94	72530.05	119.9%	1065.52	4096.41	67368.12
2	MAY	168525	41.99	70767.29	70767.29	100.0%	13442.08	35367.59	21957.62
3	JUNE	142338	47.37	67418.74	76494.34	113.5%	6335.44	43916.56	26242.34
4	July	176651	45.49	80354.38	80354.38	100.0%	4258.77	52619.45	23476.15
5	August	196856	43.51	85643.37	85643.37	100.0%	7378.28	39827.46	38437.63
6	Sep	182193	41.54	75682.63	75682.63	100.0%	11921.23	35653.46	28107.94
7	Oct	186803	45.70	85363.24	85363.24	100.0%	15428.16	43844.578	26090.50
8	Nov	115343	46.81	53995.48	53995.48	100.0%	5725.84	38839.23	9430.41
9	Dec	179820	44.08	79267.25	79267.25	100.0%	14704.15	51324.67	13238.43
10	Jan	135612	43.96	59620.41	59620.41	100.0%	10050.71	40177.21	9392.49
11	Feb	190205	36.57	69563.93	69563.929	100.0%	14964.66	44164.68	10434.59
12	Mar	226995	36.76	83435.53	83435.533	100.0%	13801.64	55698.08	13935.82



#### ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by: -

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

An ISO 9001:2015 & BS OHSAS 18001: 2007

#### ANALYTICAL TEST REPORT

W	ater Test Repor	t	URL(Unique Lab Report) N	0.	TC7813213	0000027P
Date of Issue	28 <sup>th</sup> March 2021	11/6/2	Report ID	100	YBAEEL-21	10308 -122658 - S- 02
Sample Description	Bottom Ash		Job code / Ref. no.		YBAEEL/W	A/L/S/Mar 21/01
Type of Industries	Thermal Power Plant	641 III	Work Order No./ Date		3030005309	9 - 27/02/2021
Len Colo	Vill Padampur, Be Jamshedpur-83240	hind PGCIL Sub-st 2, Jharkhand.	ation,			
	47/02/2024		Mode of sample Collec	tion	By YBAEF	L Team
The state of the s	17/03/2021		Mode of sample Collect	tion	By YBAEE	
Sampling date Sampling Protocol	17/03/2021 YBAEEL/SP/01/00	1000 15 H	Sample Code	tion	210318 - 8	S – E02
The state of the s		10 10 10 10 10 10 10 10 10 10 10 10 10 1		tion	and the same of th	S – E02
Sampling Protocol	YBAEEL/SP/01/00	r Bag	Sample Code	etion	210318 - 8	S – E02 sh
Sampling Location	YBAEEL/SP/01/00 Hopper	r Bag	Sample Code Sampling Source	tion	210318 – S Bottom As	S – E02 sh rox.

**Test Result** 

SI. No.	Tested Parameter	Method	Unit	Result
1.	Arsenic	Method 31114(B) APHA 23rd Edition, 2017	ppm	0.09
2.	Mercury	Method 31112(B) APHA 23rd Edition, 2017	ppm	0.03
3.	Chromium	Method 3111(B) APHA 23rd Edition, 2017	ppm	0.61
4.	Lead	Method 3111(B) APHA 23rd Edition, 2017	ppm	0.84
5.	Iron	Method 3111(B) APHA 23rd Edition, 2017	ppm	9.33
6.	Cadmium	Method 3111(B) APHA 23rd Edition, 2017	ppm	0.07
7.	Copper	Method 3111(B) APHA 23rd Edition, 2017	ppm	0.16
8.	Nickel	Method 3111(B) APHA 23rd Edition, 2017	ppm	0.72
9.	Selenium	Method 3111(B) APHA 23rd Edition, 2017	ppm	0.03
10.	Zinc	Method 3111(B) APHA 23rd Edition, 2017	ppm	0.11
11.	Unborn carbon	IS: 1350 (P- 2)	%	2.3

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

Remarks: - Sample test results have found above.

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

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

	Q 1000 00 00 00 00 00 00 00 00 00 00 00 0	3-3013121
- two timail	128/ps	3 34.51
Tested by	Checked by	Issued by
Prem Kumar	Brij Nandan Kumar	Umesh Das
Lab Analyst	In-Charge Pollution & Environment Auu	ndrized Signatorychnical Manager

Envirorzanbağ Engineering Latakistory Dhanbad Branch Office : - Jamshedpur Main Office: Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand

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



#### 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

ANALYTICAL TEST REPORT

	Water Test Report	URL (Unique Lab Report) No.	TC78132130000030P
Date of Issue 28 <sup>th</sup> March 2021		Report ID	YBAEEL-210308 -122658 -WW03
Sample Description	Waste Water	Job code / Ref. no.	YBAEEL/WA/L/C/Mar21/11
Type of Industries	Thermal Power Plant	Work Order No./ Date	3030005309 - 27/02/2021
Issued to : -	M/s Adhunik Power & Natural F Vill Padampur, Behind PGCIL Jamshedpur-832402, Jharkhan	Sub-station,	MAZERIA NE ENTRE

Sampling date	18/03/2021	AND THE REAL VIEW	Mode of sample Colle	ction By YBAEEL Team
Sampling Protocol	IS: 3025 (Part-1	) 1987, R-2003	Sample Code	210318 – WW – E03
Sampling Location	Ash Pond outle		Sampling Source	Effluent Water
Sample pkg. Condition	Sealed Pack in	PP Bottle	Sample Quantity	3000 ml
Meteorological cond.	W.C Clear		RH - 39 %	Temp. – 29°C
Work allotted date	18/03/2021	Test started on	18/03/2021	Test completed on 26/03/2021

**Test Result** 

SI	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2002	рН	7.59	5.5-9.0
2.	Temperature*	IS 3025 (P-09)	°C	27	40
3.	Total suspended solids	IS 3025 (P-17):2012	mg/l	96.0	100
4.	Oil and grease	IS 3025 (P-39):2003	mg/l	3.6	10
5.	Arsenic (as As)	APHA 3114 B 23rd edition 2017		ND (DL 0.003)	0.2
6.	Chromium (as Cr)	APHA 3111 B 23rd edition 2017	mg/l	ND (DL 0.02)	ACCUMULANT DE
7.	Lead (as Pb)	APHA 3111 B 23rd edition 2017	mg/l	0.07	0.1
8.	Mercury (as Hg)	APHA 3112 B 23rd edition 2017	mg/l	ND (DL 0.001)	0.01

\*\*\*\*\*\*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: -

- 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

Limay	Dolum ostroi	32830
Tested by	Checked by	Issued by
Prem Kumar	BrijNandan Kumar Autho	rized Signatory Umesh Das
Lab Analyst	In-Charge Pollution & Environment Pollutio	& Environmelechnical Manager
		Bharati Analytical & Page 1 of

Branch Office : - | Jamshedpur | Dhanbad | Environmental Engineering Laboratory

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

TÜV Rheinland a 150 9001:2015 BS OHSAS 18001:2007



# ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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

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

ANALYTICAL TEST REPORT

1940	Water Test Report	URL (Unique Lab Report) No.	TC78132130000028P
Date of Issue	28 <sup>th</sup> March 2021	Report ID	YBAEEL-210308 -122658 -WW01
Sample Description	Waste Water	Job code / Ref. no.	YBAEEL/WA/L/C/Mar21/09
Type of Industries	Thermal Power Plant	Work Order No./ Date	3030005309 - 27/02/2021
Issued to : -	M/s Adhunik Power & Natural I Vill Padampur, Behind PGCIL Jamshedpur-832402, Jharkhar	Sub-station,	

Sampling date	18/03/2021		Mode of sample Colle	ction By YBAEEL Team
Sampling Protocol	IS: 3025 (Part-1)	1987, R-2003	Sample Code	210318 – WW – E01
Sampling Location	Final Outlet of E		Sampling Source	Effluent Water
Sample pkg. Condition	Sealed Pack in P	P Bottle	Sample Quantity	3000 ml
Meteorological cond.	W.C Clear		RH – 39 %	Temp. – 29°C
Work allotted date	18/03/2021	Test started on	18/03/2021	Test completed on 26/03/2021

**Test Result** 

SI	Parameter	Test Method	Units	Results	Limits
1	pH value	IS 3025 (P-11):2002	pH	7.85	5.5 -9.0
2.	Temperature*	IS 3025 (P-09)	°C	27.2	40
3.	Total suspended solids	IS 3025 (P-17):2012	mg/l	38.0	100
1	Chloride (as CI)	IS 3025 (P-32):2003	mg/l	11.6	1000
5.	BOD	IS 3025 (P-44):2009	mg/l	18.0	30
6.	COD	IS 3025 (P-58):2006	mg/l	100.0	250
7	Chromium (as Cr)	APHA 3111 B 23rd edition 2017	mg/l	ND (DL 0.02)	-3-17
8.	Copper (as Cu)	APHA 3111 B 23rd edition 2017	mg/l	0.03	3
9.	Lead (as Pb)	APHA 3111 B 23rd edition 2017	mg/l	0.03	0.1
10.	Zinc (as Zn)	APHA 3111 B 23rd edition 2017	mg/l	ND (DL 0.1)	5
11.	Sulphate (as SO <sub>4</sub> <sup>2</sup> -)	IS 3025 (P-24):2003	mg/l	9.4	1000

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

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

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

#### 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

	N. vires no m	3 8 3 2
- Lymay	Phose 100)	201
Tested by	Checked by	Issued þy
Prem Kumar	Brij Nandan Kumar Authoria	red Signatory Umesh Das
Lab Analyst	In-Charge Pollution & Environment	& Ferninger Jeshnical Manager  Facult Applyment & Page

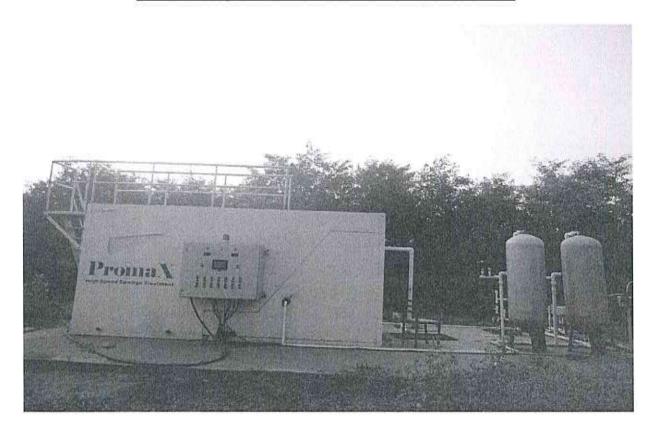
Dhanbad Branch Office : - Jamshedpur Main Office: Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand Ph: 098351-97960, 098357-86677, Email - ybaeel@gmail.com, Web - https://ybaeel.in

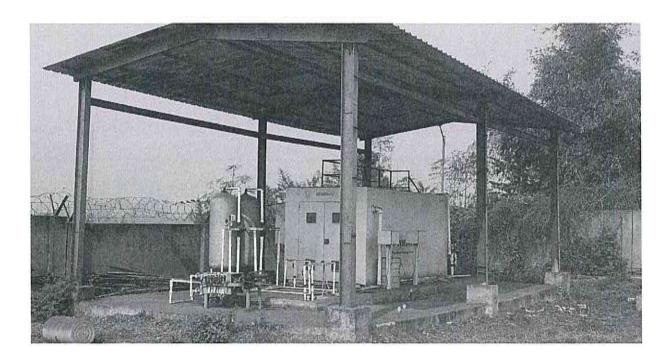
En Hazaribag

Pakur

ISO 9001:2015

# **Sewage Treatment Plant**





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

अधिन्ठापनों में पेट्रोलियम के आयात और मंडारकरण के लिए अनुजय्ति LICENCE TO IMPORT AND STORE PETROLEUM IN AN INSTALLATION

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



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 विनिर्दिष्टु 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 उपायद हैं, में दिखाए गए स्थान पर अण्डारकरण के लिए पेट्रोलियम अधिनियम, 1834 के उपवंधों या उसके अधीन बनाए गए नियमों तथा इस अनुमण्डित की अधीनक शर्ती के अधीन रहते हुए, यह अनुमण्डित अनुदत्त की जाती क

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 अनुज्ञस्ति 31st cay of December 2022 तक प्रवृत रहेगी । The Licence shall remain in force till the 31st day of December 2022

पेट्रोतियम का विवरण /Description of Petroleum	अनुजय्त मात्रा (किलोलीटरों में) /Quantity licenced in KL
वर्ग क प्रयुंज पेट्रोलियम /Petroleum Class A in bulk	NIL
बर्ग क प्रपुंज पेट्रोलियम से क्रिक्त /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 म 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 शमता /Total Capacity	5000.00 KL

December 15, 2011

Chief Controller of Explosives

1). Amendment dated - 23/12/2011

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

अनुभन्त परिसर जिसकी बिन्यास सीमाएं अन्य विशिष्टयां संतरन अनुमोदित नक्शी में दिखाई गई हैं Plot No: Plot No. 161,, Behind PGCIL.Substation adityapur, Kandra Road, Village- Padampur, District: SARAIKELLA KHARSWAN, State: Jharkhand, PIN: 989998 स्थान पर अवस्थित है तथा उसमें निम्नलिखित Two Petroleum ClassCAboveground storage tanks,togetherwith other connected facilities. सम्मितित 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

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

#### नवीनीकरण के पृष्ठांकन के लिए स्थान SPACE FOR ENDORSEMENT OF RENEWALS

पेटोलियम अधिनियम, १९३४ के उपवन्धों या उनके अधीन बनाए गए नियमों या इस अनुजय्ति की शर्तो का उल्लंघन न होने की दशा में यह अनुशस्ति 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. नदीकरण की लारीख Date of

समाप्ति की तारीख Date of Explry of license

अनुजापन प्राधिकारी के हस्ताक्षर और स्टाम्प Signature and office stamp of the licencing authority.

1).

31/12/2013

Sd/-PESO ADMIN

2).

23/09/2013

31/12/2018

Sd/-R.P.Singh Jt. Chief Controller of Explosives For Dy. Chief Controller of Explosives Ranchi

18/02/2019

31/12/2022

たっつ・ K. Thiagarajan Dy. Chief Controller of Explosives Ranchi

**उप मुख्य विस्फोटक नियंत्रक, रों**बी Dy. Chief Controller of Explosives, Ranchi

यदि अनुत्रप्ति परिसर इसमें उपायद विवरण और शर्तों से अनुरूप नहीं पाए जाते है और जिन नियमी और शर्तों के अधीन यह अनुत्रप्ति नंजूर की गई है उनमें से किसी का उल्लंघन होने की दशा में यह अनुजरित रद की जा सकती है और अनुजरितधारी 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 जुनीने 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 T	ANKS-PSD	Test Report No.	: BFT/10835
Branch Plant		NAME OF STREET OF STREET	Date of Sample Drawn	: 20/07/19
Source of Sample	: TK105	¥ 9	Date of Sample Receipt	: 21/07/19
Tank No	: TK105		Date of Sample Testing	: 22/07/19
Qty of Sample/	: 1ltr uml / tk70/868.	3 b.no.36/2019		
Density/Type of Sample			Date of Report	: 22/07/19
Catg / Evnt / Activity	: Aft Receipt thru De	dicated P/L	Date of Printing	: 22/07/19
Receipt/Despatch Mode	*		JDE Sample Number	: 865213
Sample Drawn by	: RAMAKRISHNA	1/.	Batch No.	

Batch No

- 38,				Specif	ications	
Test Line Number	Characteristics	Units	Test Method	Min	Max	Result Value
5	DENSITY® 15°C	Kg/m3	IS 1448 [ P :16]			867.8
6	KINEMATIC VISCOSITY @ 40° C	c.51	IS 1448 P :25	2.500	15,000	4,860
7	FLASH POINT - PMGC	*c	IS 1448 P :21	66	7/11	79
Ð	WATER CONTENT	% Vol	IS 1448 P :40	20	.250	100
9 .	TOTAL SULPHUR	% Mass	ASTM-D 4294		1.50	.47
10	POUR POINT SUMMER	'C	IS 1446 P :10	. 1 <u>4</u> 11	21	

#### Remarks:

Sample S.Na,BFT/271 mosts specification as per IS-15770.2005(Reaffirmed2014) in the electe parameters

Appearance ; Light Brown

Notes: 1) The sample is drawn by client and results rolate 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



#### ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by: -Certified by : -

National Accreditation Board for Testing Laboratory (NABL) & Jharkhand State Pollution Control Board (JSPCB)

An ISO 9001:2015 & BS OHSAS 18001 : 2007

Certificate No. - TC 7813

# Baseline Ground Water Quality report

Issued to : -M/s - Adhunik Power & Natural Resources Ltd. Vill - Padampur, Behind PGCIL substation, Jamshedpur-832402, Jharkhand

TC78132110000069P URL (reference)

Date of Issue

28th March 2021

Type of Industries (\* in case of Industrial Effluent)

Thermal Power Plant

Sample Name/Description	Ground Water	Sampling Protocol	YBAEEL/SP/01/00
Sample pkg. Condition	Sealed in plastic bottle	Sampling Date	18th March 2021
Sample Quantity	4000 ml for each Sample	Mode of sample Collection	YBAEEL sampling team
Work allotted date	18th March 2021	Sampling Location	Down stream of Ash pond
Test started on	18th March 2021	Sampling Source	Ground water (Hand pump & Bore well)
Test completed on	24th March 2021	Meteorological cond. (RH%, °C)	39 % / 29°C

SI. No.	Tested Parameter	Method	Unit	Result	Baseline ground Water quality *	Permissible Limit (As per IS 10500 Specification)
1.	pH value	IS 3025 (Part-11)		7.2	6.9-7.4	6.5 to 8.5
2.	Total Dissolved Solid	IS 3025 (Part-16)	mg/l	360.0	251-538	500 - 2000
4.	Colour	IS:3025 (Part-04)	cu	< 5 ·/	<5	< 25
5.	Odour*	IS:3025 (Part-05)		Agreeable	Unobjectionable	Agreeable
6.	Alkalinity (as CaCO <sub>3</sub> )	IS:3025 (Part-23)	mg/l	212	147-269	200 to 600
7.	Hardness (as CaCO <sub>3</sub> )	IS 3025 (Part-21)	mg/l	178	128-308	200 to 600
8.	Nitrate (as NO <sub>3</sub> )	APHA 4500 NO <sub>3</sub> - B	mg/l	5.6	03-24	45 to no relaxation
9.	Arsenic (as As)	APHA 3112 B	mg/l	ND (MDL 0.01)	<0.01	0.01 to 0.05
10.	Calcium (as Ca+)	IS 3025 (Part-40)	mg/l	52	41-99	75 to 200
12.	Iron (as Fe)	APHA 3111 B	mg/l	0.22	0.13-0.90	0.3 to no relaxation
13.	Zinc (as Zn)	APHA 3111 B	mg/l	0.33	0.31-0.47	5 to 15
14.	Turbidity	IS 3025 ( Part 10 )	NTU	40 C 18 - 1	<5	1-5
15.	Taste	IS 3025 ( Part 07 )	-0.05	Agreeable	Agreeable	Agreeable
16.	Chlorine Residual	IS 3025 ( Part 26 )	mg/l	ND (MDL 0.07)	<0.05	
17.	Chloride as Cl	IS 3025 ( Part 32 )	mg/l	52	42-74	250-1000
18.	Fluoride as F	APHA 4500 FC	mg/l	0.4	0.31-0.50	1-1.5
19.	Lead as Pb	APHA 3111B	mg/l	ND (MDL 0.05)	<0.01	0.01-no relaxation
20.	Chromium as Cr	APHA 3111B	mg/l	ND (MDL 0.01)	<0.01	0.05-no relaxation
21.	Copper as cu	APHA 3111B	mg/l	ND (MDL 0.01)	<0.01	0.05-1.5
25.	Cadmium as Cd	APHA 3111 B	mg/l	ND (MDL 0.01)	<0.01	0.003-no relaxation
26.	Sulphate as SO4	IS 3025 ( Part 24 )	mg/l	12.7	06-28	200-400
30.	Mercury ( as Hg )	APHA 3112 B	mg/l	ND (MDL 0.01)	<0.001	

provided by customer

Issued by

Tested by Prem Kumar Lab Analyst

mumay

Checked by Authorized Signatory Mukesh Kumar Chemical Section Authorized Signatory

**Umesh Das** Technical Manager

Yugantar Bharati Analytical & Environmental Engineering Laboratory

Page 1 of 1



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





#### ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by:-

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

An ISO 9001:2015 & BS OHSAS 18001 : 2007

Certificate No. - TC 7813

#### Baseline Ground Water Quality report

Issued to : -

M/s - Adhunik Power & Natural Resources Ltd. Vill - Padampur, Behind PGCIL substation, Jamshedpur-832402, Jharkhand

URL (reference)	TC78132110000	070P	USE UP
Date of Issue	A 1000	28 <sup>rth</sup> March 2021	
Type of Industries (* in case of Industrial		Thermal Power Plant	SERVICE SERVIC

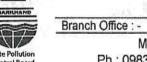
Sample Name/Description	Ground Water	Sampling Protocol	YBAEEL/SP/01/00
Sample pkg. Condition	Sealed in plastic bottle	Sampling Date	18th March 2021
Sample Quantity	4000 ml for each Sample	Mode of sample Collection	YBAEEL sampling team
Work allotted date	18th March 2021	Sampling Location	Up stream of Ash pond
Test started on	18th March 2021	Sampling Source	Ground water (Hand pump & Bore well)
Test completed on	24th March 2021	Meteorological cond. (RH%, *C)	39 % / 29°C

SI. No.	Tested Parameter	Method	Unit	Result	Baseline ground Water quality *	Permissible Limit (As per IS 10500 Specification)
1.	pH value	IS 3025 (Part-11)		7.3	6.9-7.4	6.5 to 8.5
2.	Total Dissolved Solid	IS 3025 (Part-16)	mg/l	410	251-538	500 - 2000
4.	Colour	IS:3025 (Part-04)	cu	<5	<5	< 25
5.	Odour*	IS:3025 (Part-05)		Agreeable	Unobjectionable	Agreeable
6.	Alkalinity (as CaCO <sub>3</sub> )	IS:3025 (Part-23)	mg/l	244.0	147-269	200 to 600
7.	Hardness (as CaCO <sub>3</sub> )	IS 3025 (Part-21)	mg/l	212.0	128-308	200 to 600
8.	Nitrate (as NO <sub>3</sub> )	APHA 4500 NO <sub>3</sub> - B	mg/l	8.61	03-24	45 to no relaxation
9.	Arsenic (as As)	APHA 3112 B	mg/l	ND (MDL 0.003)	<0.01	0.01 to 0.05
10.	Calcium (as Ca+)	IS 3025 (Part-40)	mg/l	73.91	41-99	75 to 200
12.	Iron (as Fe)	APHA 3111 B	mg/l	0.26	0.13-0.90	0.3 to no relaxation
13.	Zinc (as Zn)	APHA 3111 B	mg/l	0.44	0.31-0.47	5 to 15
14.	Turbidity	IS 3025 ( Part 10 )	NTU	7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<5	1-5
15.	Taste	IS 3025 ( Part 07 )	-100	Agreeable	Agreeable	Agreeable
16.	Chlorine Residual	IS 3025 ( Part 26 )	mg/l	ND (MDL 0.07)	<0.05	
17.	Chloride as Cl	IS 3025 ( Part 32 )	mg/l	64.0	42-74	250-1000
18.	Fluoride as F	APHA 4500 FC	mg/l	0,5	0.31-0.50	1-1.5
19.	Lead as Pb	APHA 3111B	mg/l	ND (MDL 0.05)	<0.01	0.01-no relaxation
20.	Chromium as Cr	APHA 3111B	mg/l	ND (MDL 0.01)	<0.01	0.05-no relaxation
21.	Copper as cu	APHA 3111B	mg/l	ND (MDL 0.01)	<0.01	0.05-1.5
25.	Cadmium as Cd	APHA 3111 B	mg/l	ND (MDL 0.01)	<0.01	0.003-no relaxation
26.	Sulphate as SO4	IS 3025 ( Part 24 )	mg/l	22.4	06-28	200-400
30.	Mercury ( as Hg )	APHA 3112 B	mg/l	ND (MDL 0.001)	<0.001	

provided by customer Tested by Checked by Issued by Authorized Signalery Umesh Das Chemical Section Technical Manager Prem Kumar Mukesh Kumar Lab Analyst Authorized Signatory Page 1 of 1

Yugantar Bharati Analytical &

Environmental Engineering Laboratory



Dhanbad Hazaribag Pakur Jamshedpur

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





#### ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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

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

ANIALYTICAL TEST REPORT

Atmos	pheric Pollution Tes	t Report	URL(Unique Lab Report) No.	TC78132120000	291F
Report Release Date	28th March 2021		Report ID	YBAEEL-210308 -	122658 -N01
Sample Description	Ambient Noise	16.5% UKS11	Job code/ Ref. no.	YBAEEL/WA/L/A/	Mar 21/30
Type of Industry	Thermal Power Plan	it	Work Order No./ Date	3030005309 - 27/0	2/2021
Issue to		er & Natural Resource ehind PGCIL Substat 02, Jharkhand.		SAN FERRINGS NEWS	
Z	4 = 10 0 10 0 0 4 1 0 10 0 10			D VOICE T	1.7
Sampling Period	15/03/2021 - 16/03/2	.021	Mode of sample collection	n By YBAEEL Te	am 💮
			Mode of sample collection O.50 (E) dated 11/01/2010	n By YBAEEL Te	am 💮
Sampling Period Sampling Protocol Meteorological Cond.		007) & CPCB Method S.		n By YBAEEL Te	am

"Test Results "

100		1001100	l I			
SI.NO.	Locations	Parameters	Units	Day Time	Night Time	Limits
1.39	Near Main Gate	Leq	dB (A)	68.5	65.7	CONTRACTOR OF THE PROPERTY OF
2.	Occupation Health Centre	Leq	dB (A)	58.2	58.9	Day Time -75
3.	Sati Steel (CHP Area)	Leq	dB (A)	61.5	52.6	Night Time-70
4.	Near Reservoir Area	Leq	dB (A)	63.4	55.3	200

\*\*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	Samples Comply with the prescribed specification as per Noise Pollution (Regulation & Control.) Rules, 2000
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit,
Note	The parameters marked with * are not accredited by NABL.
Specific contractual	All values are expressed in as unit.
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 state of the s	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
100	All disputes are subjected to the Ranchi Jurisdiction

\ au_	and the state of t	28 3 32
Tested by	Verified by	Issued by
'Amit Kumar Sinha	Brij Nandan Kumar	Umesh Das
Lab Analyst	Section In-Charge Authoriz	ed Signatoryechnical Manager
	Atmochi	faric Pollution

Yugantar Bharati Analytical & Environmental Engineering Laboratory



Branch Office : -Jamshedpur Dhanbad Hazaribag Pakur Main Office: Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand



ISO 9001:2015 BS OHSAS 18001:2007



#### 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

AMALYTICAL TEST REPORT

Atmos	pheric Pollution Te	est Report	URL (Unique Lab Report) No.		TC78132120000292F		
Report Release Date	28th March 2021		Report ID	43 M	YBAEEL-210308 -122658 -NO		
Sample Description	Work Zone Noise	SAME SAME	Job code/ Ref. n	0.	YBAEEL/WA/L/A/Mar 21/31		
Type of Industry	Thermal Power Pla	ant	Work Order No./	Date	3030005309 - 27/02/2021		
Issue to	M/s Adhunik Power & Natural Resources Limited Vill Padampur, Behind PGCIL Substation, Jamshedpur-832402, Jharkhand.						
Sampling Period	15/03/2021 - 16/03	/2021	Mode of sample	Mode of sample collection By YBAEEL 1		am	
Sampling Protocol	IS 9876:1981 (RA 2	2007) & CPCB Method	S.O.50 (E) dated 11/01	/2010	- 10 (A) (A) (A) (A)		
Meteorological Cond.	Temp 31°C	R	H % - 35%	Petilbay	W.C Clear	100	
Sample receipt Date	18/03/2021	Analysis Started o	ed on 18/03/2021 Analys		s completed on	26/03/2021	

SI.NO.	Locations	Parameters	Units	Day Time	Night Time	Factory Act. 1948	
4. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	Turbine Floor	Leq	dB (A)	82.4	83.3	H 123/14/19/2009	
2.	Coal Crusher	Leq	dB (A)	82.2	80.5		
3.	Cooling Tower	Leq	dB (A)	79.3	75.7	85 dB	
4.	Compressor House	Leq	dB (A)	83.5	81.3		
5.	Boiler Feed Pump Area	Leq	dB (A)	79.2	79.1	ENDING!	

<sup>\*\*</sup>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 //	Samples Comply with the prescribed specification as per factory act 1948.						
Abbreviation		MDL: Minimum detection limit, BDL: Below detection limit,					
Note	The parameters marked with * a	The parameters marked with * are not accredited by NABL					
Specific contractual	All values are expressed in as u	nit.	The state of the s				
notes	The results listed refer only to the	e tested sample and applicable parameter.	THE PARTY OF THE P				
The Court	This report, in full or in part, sha	I not be used for advertising or as evidence in a	ny court of law				
	This report cannot be reproduce	d, except when in full, without the written permis	ssion 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						
a angribie <sup>91</sup>	The liability of the laboratory is limited to the invoiced amount						
	All disputes are subjected to the	Ranchi Jurisdiction	28				
July		A Line 25 13 100 1	2832				
Tested	by	Verified by	Issued by				
.Amit Kuma	r Sinha	Brij Nandan Kumar Autho	rized Signatory Umesh Das				
Lab An	alyst	Section In-Charge Atmos	obaric Pollution Technical Manager				
Land West Street	College Strategies :		Bharati Analytical & all Engineering Laboratory				
Dranah Offic	a to I domestic design		adhan I Balius				



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





#### ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Certified by: -

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

An ISO 9001:2015 & BS OHSAS 18001 : 2007

ANALYTICAL TEST REPORT

Atmos	heric Pollution Test Re	eport	URL (Unique Lab Repo	ort) No.	TC781321200	00290P				
Report Release Date	28th March 2021		Report ID		YBAEEL-2103	08 -122658 -A02				
Sample Description	Ambient Air Quality (B	uffer Zone)	Job code/ Ref. no.		YBAEEL/WA/L/A/Mar 21/					
Type of Industry	Thermal Power Plant		Work Order No./ D	ate	3030005309 - 27/02/2021					
Issue to Sampling Period	M/s Adhunik Power & Natural Resources Limited Vill Padampur, Behind PGCIL Substation, Jamshedpur-832402, Jharkhand.  16/03/2021 – 17/03/2021 Mode of sample collection By YBAEEL Team									
Sampling Protocol				No.	CONTRACTOR OF	IS:5182 and CPCB Air Manual Volume-1(NAAQM/36/2012-13)				
Sampling Locations	A. Padampu	r Village	B. Srirampur Vi	lage	C. P	indrabera Village				
Sampling Locations Meteorological Cond.	A. Padampu W.C Clear	r Village RH % - 30%	B. Srirampur Vil			indrabera Village - South - North				

MTact Deculte 11

1	W-100 100 100 100 100 100 100 100 100 100		S	NAAQS		
Parameters	Test Method	Units	Site A	Site B	Site C	(2009)
Particulate matter (PM <sub>10</sub> )	IS:5182 (P-23) 2006	µg/m³	78.4	69.9	75.6	100
Particulate matter (PM <sub>2.5</sub> )	USEPA -40 CFR (PART 50) (50.7)	µg/m³	48.3	37.4	45.4	60
Sulphure Dioxide (SO <sub>2</sub> )	IS:5182 (P-2) 2001 RA 2012	µg/m³	48.4	1/154.3	38.9	80
Nitrogen Dioxide (NO <sub>2</sub> )	IS:5182 (P-6) 2006 RA 2012	µg/m³	61.1	76.1	53.5	80
Ammonia (NH3)	SOP No. YBAEEL/SOP/AIR/01	hg/w <sub>3</sub>	50.8	83.1	45.9	400
Ozone (O3)*	IS:5182 (P-09) 1974	hg/m <sub>3</sub>	84.5	85.9	65.4	180
Carbon Monoxide (CO)*	IS:5182 (P-10) 1999 RA 2003	mg/m³	1.8	2.16	1.98	04
Lead (Pb)	IS:5182 (P-22) 2004	µg/m³	0.22	0.21	0.23	01
Nickel (Ni)*	SOP No. YBAEEL/SOP/AIR/01	ng/m³	BDL (MDL 8.3)	BDL (MDL 8.3)	BDL (MDL 8.3)	20
Arsenic (As)*	SOP No. YBAEEL/SOP/AIR/01	ng/m³	BDL (MDL 1.0)	BDL (MDL 1.0)	BDL (MDL 1.0)	06
Benzene (C6H6)*	IS:5182 (P-11) 2006	µg/m³	BDL (MDL 0.06)	BDL (MDL 0.06)	8DL (MDL 0.06)	05
Benzo (a) pyrene (BaP)* Particulate Phase Only	IS:5182 (P-12) 2004 RA 2017	ng/m³	BDL (MDL 0.2)	BDL (MDL 0.2)	BDL (MDL 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	All values are expressed in as unit.				
notes	The results listed refer only to the tested sample and applicable parameter.				
A 5/3/25	This report, in full or in part, shall not be used for advertising or as evidence in any court of faw				
	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				

Verified by Issued by Tested by Amit Kumar Sinha Brij Nandan Kumar Authorized Signatory Umesh Das Section In-Charge Dhanbad Lab Analyst Branch Office : -Atmospharic Pollution echnical Manager Jamshedpur Vuo Hazanbag rati AnalyticaPakur

Main Office: Namkum Post Office, Sidroul, Ranchin-884@Iginthankhanteratory Ph: 098351-97960, 098357-86677, Email - ybaeel@gmail.com, Web - https://ybaeel.in ISO 9001:2015 BS OHSAS 18001:2007



#### **ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY**

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

An ISO 9001:2015 & BS OHSAS 18001: 2007

ANALYTICAL TEST REPORT

Atmos	pheric Pollution Test Repo	ort	URL (Unique Lab Report) No.	TC781	32120000289P	
Report Release Date	28th March 2021		Report ID	YBAEE	L-210308 -122658 - A01	
Sample Description	Ambient Air Quality (Core Zone)		Job code/ Ref. no.	YBAEE	L/WA/L/A/Mar21/30	
Type of Industry	Thermal Power Plant		Work Order No./ Date	Vork Order No./ Date 3030005309 - 27/02/2021		
Issue to	M/s Adhunik Power & Natural Resources Limited Vill Padampur, Behind PGCIL Substation, Jamshedpur-832402, Jharkhand.  15/03/2021 – 16/03/2021 Mode of sample collection By YBAEEL Team					
Campling Doried	15/02/2021 _ 16/02/2021					
Sampling Period	15/03/2021 - 16/03/2021		Mode of sample collectio	it by tu	AEEL Team	
Sampling Protocol	15/03/2021 – 16/03/2021 IS:5182 and CPCB Air Ma	nual Volume-1(NA/		ii   by ib/	AEEL Team	
			AQM/36/2012-13)		Sati Steel	
Sampling Protocol	IS:5182 and CPCB Air Ma		AQM/36/2012-13)		(O <sub>C)</sub>	

MTast Danilla M

	R. VIC. 3275	"Test Resul	is	M. W. Marie		
The second secon	Tool Mathaul	Units	S	NAAQS		
Parameters	Test Method	Units	Site A	Site B	Site C	(2009)
Particulate matter (PM <sub>10</sub> )	IS:5182 (P-23) 2006	µg/m³	81.5	86.7	94.6	100
Particulate matter (PM <sub>2.5</sub> )	USEPA -40 CFR (PART 50) (50.7)	µg/m³	52.1	54,6	58.4	60 -
Sulphure Dioxide (SO <sub>2</sub> )	IS:5182 (P-2) 2001 RA 2012	µg/m³	46,1	50,8	36.6	80
Nitrogen Dioxide (NO <sub>2</sub> )	IS:5182 (P-6) 2006 RA 2012	µg/m³	56.4	62.9	55.4	80
Ammonia (NH3)	SOP No. YBAEEL/SOP/AIR/01	µg/m³	39.6	40.2	50.2	400
Ozone (O3)*	IS:5182 (P-09) 1974	μg/m³	63.4	73.3	51.1	180
Carbon Monoxide (CO)*	IS:5182 (P-10) 1999 RA 2003	mg/m <sup>3</sup>	BDL (MDL 1.8)	BDL (MDL 1.8)	BDL (MDL 1,8)	04
Lead (Pb)	IS:5182 (P-22) 2004	µg/m³	0.21	0.34	0.47	01
Nickel (Ni)*	SOP No. YBAEEL/SOP/AIR/01	ng/m³	BDL (MDL 8.3)	BDL (MDL 8.3)	BDL (MDL 8.3)	20
Arsenic (As)*	SOP No. YBAEEL/SOP/AIR/01	ng/m <sup>3</sup>	BDL (MDL 1.0)	BDL (MDL 1.0)	BDL (MDL 1.0)	06
Benzene (C6H6)*	IS:5182 (P-11) 2006	µg/m³	BDL (MDL 0.06)	BDL (MDL 0.06)	BDL (MDL 0.06)	05
Benzo (a) pyrene (BaP)* Particulate Phase Only	IS:5182 (P-12) 2004 RA 2017	ng/m <sup>3</sup>	BDL (MDL 0.2)	BDL (MDL 0.2)	BDL (MDL 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	All values are expressed in as unit.				
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				
100	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				
2.5	The liability of the laboratory is limited to the invoiced amount				
	All disputes are subjected to the Ranchi Jurisdiction				

Verified by Issued by Tested by Brij Nandan Kumar Authorized Signatory Umesh Das Amit Kumar Sinha Section in-Charge Atmosphane Pollution Technical Manager

Dhanbad Yugartiazaribach Analytical Rakur Lab Analyst Branch Office: -Jamshedpur

Main Office: Namkum Post Office, SidrouErRiamonEn 884040; Jirankhahararory Ph: 098351-97960, 098357-86677, Email - ybaeel@gmail.com, Web - https://ybaeel.in 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

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

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

: 14, N. S. Road, 2nd Floor, Kolkata - 700 001, Phone No. +91 - 33 - 22428551, 22428553

REGD. OFFICE

: www.adhunikgroup.com Website



#### 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 Ald 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: "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 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, RNG/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

Jharkhand Solosts & Climate Charles

Both Tay Jan 26

Rec 241/1/2020

#### 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-Sariekela,Jharkhand Mobile no-7763818994