Kamlesh Kr Jha

From: Kamlesh Kr Jha

Sent: 24 September 2024 11:34

To: 'ranchijspcb@gmail.com'; 'ro.ranchi-mef@gov.in'; 'jspcb.jsr@gmail.com'

Subject: Submission of Environmental Statement (Form V) for Unit II (1 x 270 MW) of M/s

Adhunik Power & Natural Resources Limited, Village-Padampur, Dist-Saraikela-

Kharswan, Jharkhand for FY (2023-24).

Attachments: Environment Statement-Unit II (2023-24).pdf

To,

Member Secretary

Jharkhand State Pollution Control Board,

HEC Campus, Dhurva,

Ranchi, Jharkhand.

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

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

Dear Sir,

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

This is for your kind information & record please.

Thanking You

Regards

Kamlesh Kumar

A.G.M-Environment

Adhunik Power & Natural Resources Itd.

Vill.-Padampur,, Behind P.G.C.I.L Substation, Tata-Kandra Road

Saraikela-Kharsawan, Pincode: -832402, Jharkhand

Cell No: - 07763818994

Email Id:- kamleshkrjha@adhunikpower.co.in

Website:- <u>www.adhunikpower.com</u>
Attachment: As mentioned above

CC: 1. Integrated Regional Office -Ranchi,

Ministry of Environment, Forest and Climate Change,

2nd Floor, Jharkhand State Housing Board (HQ)

Harmu Chaouk, Ranchi, Jharkhand-834002

2. Regional Office. JSPCB, Adityapur



ADHUNIK POWER & NATURAL RESOURCES LIMITED

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

Ref No APNRL/JSPCB/ES/2023-24/02

Date: 23th Sep 2024

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

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

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

Dear Sir,

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

This is for your kind information & record please.

Thanking You

Your's faithfully

(Authorized Signatory)

Encl: As mentioned above

CC: 1. Integrated Regional Office -Ranchi,

Ministry of Environment, Forest and Climate Change,

2nd Floor, Jharkhand State Housing Board(HQ)

Harmu Chaouk, Ranchi, Jharkhand-834002

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

FORM-V

From:

Adhunik Power & Natural Resources Limited

Village: Padampur

Dist: Saraikela-Kharsawan - 832 402

Jharkhand.

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

Environmental Audit Statement for the financial year ending on the 31st March-2024 for Unit-II (1 x 270 MW)

PART - A

(i) Name & Address of the owner/occupier of the Industry operation or process

Sh. Nirmal Agarwal Adhunik Power & Natural Resources Ltd, Vill- Padampur, Adityapur-

Kandra Road, Dist- Sariekela-Kharswan, Jharkhand

(ii) Industry Category

: Red Category

(iii) Production Capacity - (Units-MW)

: Power

270 MW Per Hour

(iv) Year of Establishment (COMMERCIAL PRODUCTION DECLARED)

19th May 2013

(v) Date of Last Environmental Statement Submitted

20th September 2023

PART-B

Water and Raw Material Consumption

(i) Water Consumption KL/Day

Process

: 735.9

Cooling

: 11797.6

Domestic

: 119.89

Name of product	Process water consumpt	ion per unit of product output
	During the previous financial year	During the current financial year
Electricity	2022-23	2023-24
270 MW Per Hour	0.223 КІ	0.126 KI

(ii) Raw Material Consumption

Name of Raw Materials	Name of product	Consumption of rav	v material per unit of al Production)
Coal	Down	During the previous financial year 2022-23	During the current financial year 2023-24
-DO	Power	0.690MT	0.723 MT
		0.00027 KL	0.00014 KL

PART – C

Pollution Discharged to environment / unit of output.

(Parameter as specified in the consent issued)

(i) Water Unit Limit pH 5.5. to 9.0 SS < 100 mg/l Oil & Grease < 10 mg/l BOD5 < 30 mg/l COD < 250 mg/l	utilized in HCDC sy 2) Effluent generated	I from CBD is being hing & dust suppression from STP is being	prescribed standard
PM FO2 IOX	1121.8 Kg/Day 34771.7 Kg/Day 11042.8 Kg/Day	1	Concentration are below the prescribed limits. Stack monitoring report are enclosed as Annexure II

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

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

PART - D **HAZARDOUS WASTES**

(As specified under Hazardous Wastes Management and Handling & Transboundary Movement Rules, 2008)

Hazardous Wastes	Total Qua	antity (KL).
	During the previous financial Year	During the current financial Yea
	2022-2023	2023-2024
From Process	Used Oil- 5.016 Kl	Used Oil- 2.79952 Kl
-	Waste Oil- 1.671 KI	Waste Oil- 0.64968 KI
From Pollution	0 KL	0 KL
Control Facilities		

The APNRL has obtained Hazardous Waste Authorization from JSPCB for Collection &

Waste / Spent Oil is collected at centrally located point in isolated stores area meant for them in sealed M.S. Drums which is further sent to authorized recycler for disposal as

PART-E

Solid Wastes

	Total Quantity (MT)		
	During the previous financial Year	During the current financial Year	
1-1	2022-2023	2023-2024	
(a) From Process			
 Bottom Ash 	72964 MT		
(b) From Pollution Control Facility		60819 MT	
Fly ash	413461MT		
c) (1) Quantity recycled or		444330 MT	
re-utilized within the unit			
(2) Sold			
(3) Disposed			
 Fly Ash 	406473.78 MT	369578.0 MT	
	0 MT	38324.3 MT	

PART - F

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

Hazardous Waste:

- 1) Solid Hazardous Waste:
 - Bio medical Waste is generated from OHC is being disposed as per CPCB Guidelines.
 - Waste generated from Canteen is used from preparing bio-compost & it is used for plantation.
 - For the collection of dry fly ash, silos have been provided with pneumatic system
 & Bottom ash is led to the Ash dyke through pipeline in wet slurry mode.
- 2) Liquid Hazardous waste:
 - In this financial year, Used Oil-2.80928 KL & Waste Oil-1.09152 KL have been generated from process and disposed to authorized recycler as per norms of MoEF.
- 3) E Waste
 - E Waste are disposed through Authorized recprocessors/Recyclers.

PART - G

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

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

- Specific Water consumption in FY 2023-24 is 2.19 m3 /MWh which is substantially below the statutory limit of 3.5 m3 /MWh.
- Reduce-Reuse-Recycle is adopted for water usage. We are using effluent water generated from Cooling tower, DM plant, IBD tank for Ash handling system instead of fresh water from River Subarnarekha.
- Ash water recirculation system (AWRS) is operational since inception of the plant.
 AWRS is used to recirculate decanted water from ash ponds to plant, where water is again used in ash slurry system, thus freshwater requirement is minimal.
- Extensive tree plantation is under progress as a part of green belt development, which will control the impact of Air pollution and optimize the ambient temperature of surrounding areas.
- Twin flue stack with height of 275 m are provided as per the CPCB guidelines for better dispersion of emissions and keep the concentrations within JSPCB/CPCB specified standards.

- High efficiency Electrostatic precipitators (ESPs) are provided for control of dust
- Dust suppression system is installed at Truck tippling area.
- Dust Extraction system along with bag Filters have been installed at Coal bunker, Intermediate Silo & Ash Silo to arrest the fugitive emissions.
- Roof sheeting and side cladding in conveyor galleries and TPs are installed to control
- The plant is designed on COC of more than 5 which is helpful in water conservation which further lead to reduction in overall fresh water intake.
- Garland drain connected with coal settling pit are installed in the Coal Stockyards for the reutilize of coal containing water.
- Mist canyons are installed around the coal stock yard for the control of fugitive dust.
- Belt washing system, coal settling pits and waste water recovery system are installed at transfer house for the dust suppression and water recovery.
- Water spraying system is installed in ash pond area for controlling the ash fugitive
- Effluent Treatment Plant (ETP) and Sewage Treatment Plants (STP) are installed to
- Rain Water harvesting is being practiced in the plant premises, which helps in ground
- Good housekeeping is maintained within the plant premises. Because of the adaptation of aforementioned methods, the quality of emissions and discharges are maintained below the permissible limits prescribed by the MoEF&CC /

PART - H

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

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

PART - I

Any other particulars for improving the quality of the environment:

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

- 1. Received certification for ISO 9001:2008, ISO 14001: 2004 & ISO 18001:2007 from BSI.
- 2. Training on EMS to all employees and contract labors to create Environment awareness.
- 3. Green Belt development is under progress.
- 4. Only PUC certified vehicles are engaged.
- 5. Monitoring of Ambient air quality, Surface and ground water quality, stack monitoring, soil, Noise level is being done through MoEF & NABL accredited laboratory.
- 6. Full-fledged Environmental laboratory has been installed.
- 7. Installation of Online Effluent monitoring system has been completed.
- 8. Webhosting of online environment data on CPCB/SPCB website have been completed.
- 9. Electronics Display board is provided at the main gate for public data display.
- 10. Audit by recognized organization i.e. ERM has been conducted to improve Environmental & Social Management system (EMS).
- 11. Celebration of Environmental promotional activities (Environment day, Earth Day, Water
- 12. Remote calibration facility of CEMS has been completed.

13. 200 no Solar light system has been installed in plant premises.

Date: 23/09/2024

Signature

Name

Designation Address

: M. N. Singh

: Head -O&M

: Adhunik Power & Natural Resources

Limited, Village: Padampur Dist: Saraikela-Kharsawan -

832 402. Jharkhand



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY ISO 9001:2015 & ISO 45001:2018 Certified by:-



ULR (Unique Lab Report) No. Discipline Chemical		8 9 2 4 0	0 0	0000	0 4 4 1 2 1
Report Release Date	Group Pollution & Environment	Sample Description		1 0 1	er / Effluent Water
W. Order / JSPCB App. No.	3030006964	Report ID		YBAFFI-24	40229-152312-WW01
Type of Industry(if any)	Thermal Power Plant	Work Order Date		03.02.2024	40223-13231Z-WWW07
Report Issue to	M/s Adhunik Power & Natural Page	Job code/ Ref. no. Irces Ltd. !402,		YBAEEL/WA/L/W/Mar24/03	
	VIII. Audinour, PGCII S Kandra on	32402,			
Sampling Date	Seraikela-Kharsawan, Jharkhand.	32402,			
	Seraikela-Kharsawan, Jharkhand. 06/03/2024	32402, Mode of sample collection	on [By YBAEEI	Team
Sampling Protocol	Seraikela-Kharsawan, Jharkhand. 06/03/2024 IS: 17614 (Part-1): 2021	Mode of sample collectic Sample Code	-	By YBAEEL 240307-WW-	
Sampling Protocol Sampling Location Sample pkg. Condition	Seraikela-Kharsawan, Jharkhand. 06/03/2024 IS: 17614 (Part-1): 2021 ETP Outlet	Mode of sample collectic Sample Code Sampling Source		240307-WW-	E01
Sampling Date Sampling Protocol Sampling Location Sample pkg. Condition Meteorological Cond. of Field	Seraikela-Kharsawan, Jharkhand. 06/03/2024 IS: 17614 (Part-1): 2021 ETP Outlet Sealed Pack in PP Bottle	Mode of sample collectic Sample Code			E01

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

SI	D	******Test Results *****			1 1 1 1 2 1 2 0 2
	Parameter	Test Method		1	
1,_	pH value	IS 3025 (P-11):2022 (Electrometric Method)	Units	Results	Limits
2.	Temperature	1 15 31125 (P-001-2022	pН	7.70 at 27.0°C	
3.	Total Suspended Solids	IS 3025 (P-17):2022 (Gravimetric Method)	°C	27.0	5.5 - 9.0
4.	BOD (3 days at 27°C)	IS 3025 (P-44):1993, RA 2019 (Oxygen Depletion Method)	mg/I	12.0	400
5.	COD	IS 3025 (P-58):2006, RA 2022	mg/l	4.8	100
6.	Chloride (as CI)	IS 3025 (P-32):1988, RA 2019 (Argentometric Method)	mgll	44.0	30
7	Sulphate (as SO ₄ 2-)	IS 3025 (P-24-Sec 1):2022 (Turbidity Method)	mg/l	10.9	250
3.	Copper (as Cu)	ACDA 3111 B 24th Addition 2022 (b)	mg/l	18.4	**
1.		APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method) APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method) APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.01)	**
0.	Zinc (as Zn)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method) APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	0.1
1,	Chromium (as Cr)	APHA 3111 B 24th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.10	5
mit i	is specified as	(Crect All Acetylene Flame Method)	mg/l	0.37	2

Limit is specified as Abbreviation	Environmental (Protection) Rule – 1986.
nv. Condition of Lab	NUL: Minmum defection times part p. c.
Specific contractual notes	
	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility This report, in full or in part, shall not be used for advertising or as evidence in any court of law.
	The samples collected shall be disclosed in the winter in the winter permission of the CEO
	The fiability of the laboratory is limited to the invoiced amount. All disputes are about the financial of the invoiced amount.
emarks	rui disputes are subjected to the Panchi tratest as
3.50	Sample complies with prescribed limit.

Sample Drawn By

- Mukesh Singh

Tested By

- Shivani Kumari Singh (Sr. Lab Analyst)

Sanjeev Kumar Singh A (Technical Manager)

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

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





YUGANTAR BHARATI ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY ISO 9001:2015 & ISO 45001:2018



Certified by:-

Test Report

0110312024	Analysis Started on	07/03/2024	Analysis com		
07/03/2024	Analysis Started on			Temp27°C	
			.y		and the second second
Sealed Pack In	n PP Bottle				S S S S S S S S S S S S S S S S S S S
		Sampling Sour	ce		
	110-1). 2021	Sample Code	- 1072		
	rd 1), 2024	Mode of sample	le collection	By YBAFFI T	iam
05/03/2024	narsawan, Jharkhand	T	- 44		
and addition	DUL PIRELL & Lander	sources Ltd.	vei. no.	YBAEEL/WA	/L/W/Mar24/02
		lob pad-11			
			r Data	YBAEEL-24	0229-152312-WW0
16th March,	2024	- minpie De	scription	Waste Wate	r / Effluent Water
Group 1	1 2 3		4 0 0 0	0 0 0	1 4 7
	TC				
	16th March, 3030006964 Thermal Pov M/s Adhuni VillPadam Seraikela-K 05/03/2024 IS: 17614 (Pa STP Outlet Sealed Pack i W.C Clear	Group Pollution & Environment 16th March, 2024 3030006964 Thermal Power Plant M/s Adhunik Power & Natural RevillPadampur, PGCILS, Kandra-Seraikela-Kharsawan, Jharkhand 05/03/2024 IS: 17614 (Part-1): 2021 STP Outlet Sealed Pack in PP Bottle W.C Clear	TC 1 2 9 8 9 2	TC 1 2 9 8 9 2 4 0 0 0	Group

1	Parameter	Test Method			
+	pH value Temperature	IS 3025 (P-11):2022 (Electrometric Method)	Units	Results	Limits
1	Total Suspended Solids	10 3023 (2:09):2023	pH	7.32 at 27.0°C	6.5 - 8.5
L	BOD (3 days at 27°C)	15.3025 (P-17):2022 (Gravingothia Mate	°C ma/I	27.0	0.0
	Oil & Grease	IS 3025 (P-44):1993, RA 2019 (Oxygen Depletion Method) IS 3025 (P-39):2021 (Partition Gravimetric Method)	rag/i	36.0 16.0	100
	Chloride (as CI)	IS 3025 (P-32): 1988, RA 2019 (Argentometric Method)	nig/i	BDL (MDL 4.0)	30
4 5	is specified as	(Augentometric Method)	mg/I	46.0	••

Limit is specified as Abbreviation	Environmental (Protection) Rule – 1986.	mg/l	46.0	**
nv. Condition of Lab	WAAL MINIMUM detection that page			
pecific contractual notes				
pecific contractual notes	All values are expressed in as unit and remult. 5.4. in Relative Humidity 65 ±	5% in all testing areas	20 nor 10 100 4000 (8)	-1-11
			359molos ia 1 al 1 a	
	This report cannot be reproduced, except when in full, without the written perm The samples collected shall be destroyed after 15 days from the delta.	any court of law	arannelei in Lao's Permar	ient Facility
	The samples collected shall be destroyed an office without the written perm	nission of the CEO		
	The liability of the laboratory is limited to the invoiced amount. All disputes are subjected to the invoiced amount.	of the certificate unter-	Consoit - I - II	
	All disputes are subjected to the Ranchi Jurisdiction,	/ variance unites	s apacitied binerwise	
emarks	Sample complies with prescribed limit,			

Sample Drawn By

- Mukesh Singh

Tested By

- Shivani Kumari Singh (Sr. Lab Analyst)

Verified & Issued by Sanjeev Kumar Singh Au (Festinical Manageratory

Chemical Section Yugantar Bharati Analytical &

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

Environmental Engineering Laboratory

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





YUGANTAR BHARATI ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY



Certified by:-

ISO 9001:2015 & ISO 45001:2018

Test Report

Discipline Chemical Report Release Date W. Order / JSPCB App. No. Type of Industry(If any)	TC 1 2	9 8 Pollution	9 2 4 0 0 Sample Description Report ID Work Order Date	0 0 0 0 1 3 3 Stationary Source Emission YBAEEL-240229-152312- S2 03.02,2024
Report Issue to	M/s Adhunik Power & Natu VillPadampur, PGCILS, Ka Seraikela-Kharsawan, Jhar	andra-2221	Job code/ Ref. no.	YBAEEL/WA/L/A/Mar,-24/01
Sampling Period	05/03/2024	Mada	sample collection	
Sampling Protocol Meteorological Cond. of Field Sample receipt Date	IS: 11255 & CPCB Guideline (Lats W.C Clear	/80/2013-14) RH % - 5		By YBAEEL Team

As observed while sampling		As reported by customer		
Platform Stack Description (Shape & Material) Sampling port Stack Identification Height of port hole from Ground level Running Oven during sampling (if any) Stack gas Temperature (k)	Sampling port hole Permanent Circular / RCC Available Unit - II 90 mtr. N/A 391.0	Type of fuel Used Quantity of Fuel Used (During Sampling) Total production Capacity Height of Stack from ground level Inner Diameter of Stack Pollution Controlling Device (if any) Total No. of Oven (if any)	Coal 160 Ton/Hr. 263 MW .275 mtr. 4.2 mtr. ESP N/A	
Stack gas Velocity (m/s) /olumetric Flow Rate (Nm³/hr) Emission Rate based on Calculation of N	31.0 1177336.0	NAME OF THE PARTY		

1. Particulate Matter (PM) Kg/hr	60-2
2. Sulphure Dioxide (SO ₂)	264.5
Oxide of Nitrogen (as NO _x) Kg/hr Kg/hr	1448.8
SI Para 1	786.3

SI	Parameters	Test Method			
1.	Particulate Matter (PM)		Units	Results	Limite
2.	Culation Di il inc	IS 11255 (Part 1)2009, RA 2019	mg/Nm ²	39.7	Limits
	Outa cam	IS 11255 (Part 2)2009, RA 2019	mg/Nm³	1230.6	20
	Contract to	1. c. c / /2003, RA 2022	mg/Nm³	390.8	600
	neofficial .	IS 13270:1992:2009, RA 2019	%	BDL (MDL 0.2)	450

Limit is specified as	Environmental (Protection) Rule - 1986.
Abbreviation	MO Manager (Florection) Rule - 1986.
Env. Condition of Lab	MDL: Minimum detection limit, BDL: Below detection limit,
Specific contractual notes	This report, in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full, without the written permission of the CEO. The samples collected shall be destroyed after 15 days from the date of issue of the report unless specified otherwise.
	All disputes are subjected to the Ranchi Jurisdiction.

Sample Drawn By

- Mukesh Singh

Tested By

- Akash Khalkho (Lab Analyst)

TH 03/24 Verified & Issued by

Sanjeev Kumar Singh Aut (Technical Manageritory

Atmospharic Pollution Yugantar Bharati Analytical &

****End of Report****

Environmental Engineering Laboratory



