

Kamlesh Kr Jha

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

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

Dear Sir,

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

Thanking You

Your's faithfully

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



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/2019-20/01

Date: 21st Sep 2020

The Member Secretary
Jharkhand Pollution Control Board
Jharkhand

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

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

Dear Sir,

In line with compliance of above referred EC letter point No XXX of general condition, Please
find attached herewith Environmental statement (Form V) for the financial year 2019-2020.

This is for your kind information & record please.

Thanking You

Your's faithfully

Kamlesh Kumar
(Manager-Environment)

Encl: As mentioned above

CC: 1. The Regional Office(ECZ)

Ministry of Environment & Forest & Climate Change,
Bungalow No. A-2, Shyamali Colony, Ranchi-834002

2. The Regional Officer

Jharkhand Pollution Control Board
Jamshedpur, Jharkhand

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

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

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

Website : www.adhunikpower.com

ENVIRONMENTAL STATEMENT

For

1 X 270 MW COAL BASED THERMAL POWER PLANT

(UNIT I)

FINANCIAL YEAR 2019-2020



September 2020



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

FORM-V

From:

Adhunik Power & Natural Resources Limited

Village: Padampur

Dist: Saraikela-Kharsawan – 832 402

Jharkhand.

To,

Member Secretary

Jharkhand State Pollution Control Board,

HEC Campus, Dhurva,

Ranchi , Jharkhand.

Environmental Statement for the financial year ending on the 31st March-2020
for Unit-I (1 x 270 MW)

PART – A

- | | | | |
|-------|---|---|--|
| (i) | Name & Address of the owner/occupier of the Industry operation or process | : | Sh. Raghvendra Kumar Singh
Adhunik Power & Natural Resources
Ltd, Vill- Padampur, Adityapur-
Kandra Road, Dist- Sariekela-
Kharswan, Jharkhand |
| (ii) | Industry Category
Primary – STC Code
Secondary – STC Code | : | Red Category |
| (iii) | Production Capacity – (Units-MT) | : | Power(270 MWH) |
| (iv) | Year of Establishment
(COMMERCIAL PRODUCTION DECLARED) | : | 21 st January-2013 |
| (v) | Date of Last Environmental Statement
Submitted | : | 23 th September 2019 |

PART-B

Water and Raw Material Consumption

(i) Water Consumption KL/Day

Process	:	1768.77
Cooling	:	10334.87
Domestic	:	59.5

Name of product	Process water consumption KL/ MW	
	During the previous financial year	During the current financial year
	2018-19	2019-20
Electricity	0.068	0.363

(ii) Raw Material Consumption

Name of Raw Materials	Name of product	Consumption of raw material per MW	
		During the previous financial year 2018-19	During the current financial year 2019-20
Coal	Power	0.689 MT	0.71088 MT
LDO		0.00038 KL	0.00048 KL

PART – C

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

Pollutants	Qty. Of pollutants discharged (Mass / Day)	Concentration of Pollutants in discharges (Mass / Day)	Percentage of variation from prescribed standards with reasons
(i) Water Unit Limit pH 5.5. to 9.0 SS < 100 mg/l Oil & Grease < 10 mg/l BOD ₅ < 30 mg/l COD < 250 mg/l	1) Effluent generated from Cooling tower, DM plant, IBD tank, CPI separator is being utilized in Ash Handling system. 2) Effluent generated from CBD is being reutilized in quenching & dust suppression system. 3) Effluent generated from STP is being utilized for gardening		Concentration is below the prescribed limits. ETP & STP analysis report are enclosed as Annexure I
(ii) Air SPM SO ₂ NO _x	41.2 Kg/Hr 498.2 Kg/Hr 180.7 kg/Hr	42.2 mg/Nm ³ 516.8 mg/Nm ³ 187.5 mg/Nm ³	Concentration are below the prescribed limits Stack monitoring report are enclosed as Annexure II

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

PART - D

HAZARDOUS WASTES

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

Hazardous Wastes	Total Quantity (KL).	
	During the previous financial Year	During the current financial Year
	2018-2019	2019-20
1 From Process	Used Oil- 8.975 KL	Used Oil-2.553 KL Waste Oil-1.039 KL
2 From Pollution Control Facilities	Used Oil- 1.125 KL	

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

PART -E

Solid Wastes

	Total Quantity (MT)	
	During the previous financial Year	During the current financial Year
	2018-2019	2019-20
(a) From Process Bottom Ash	74485 MT	73958.93 MT
(b) From Pollution Control Facility Fly Ash	422083 MT	419100.6 MT
(c) (1) Quantity recycled or re-utilized within the unit (2) Sold (3) Disposed Fly Ash Bottom Ash	422083 MT 74485 MT	419100.6 MT 73958.93 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.
- E waste are disposed through authorized recyclers/reprocessors.

2) Liquid Hazardous waste:

- In this financial year, 2.553 KL (Used Oil) & 1.039 KL Waste oil have been generated from process and disposed to authorized recycler as per norms of MoEF.

PART - G

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

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

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

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

PART - H

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

APNRL is regularly monitoring ambient air, stack, noise level, water quality and soil quality in and around the plant premises. All the emissions and discharges are meeting the permissible limits prescribed by MoEF / CPCB / JSPCB. It is proposed to further strengthen the monitoring and reporting process. Ash Water Recovery System is installed for further reuse of ash water. Green belt development within plant premises is proposed to be accelerated.

PART – I

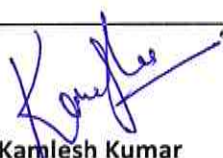
Any other particulars for improving the quality of the environment:

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

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

3. Green Belt development is under progress.
4. Only PUC certified vehicles are engaged.
5. Monitoring of Ambient air quality, Surface and ground water quality, stack monitoring, soil, Noise level is being done through MoEF & NABL accredited laboratory.
6. Full-fledged Environmental laboratory has been installed.
7. Installation of Online Effluent monitoring system has been completed.
8. Webhosting of online environment data on CPCB/SPCB website have been completed.
9. Electronics Display board is provided at the main gate for public data display.
10. Audit by recognized organization i.e. ERM has been conducted to improve Environmental & Social Management system (EMS).
11. Celebration of Environmental promotional activities (Environment day, Earth Day, Water day, Ozone day).
12. Remote calibration facility of CEMS has been completed.
13. Solar light system has been installed in plant premises.

Date: 19/09/2020

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



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

LAB ACCREDITED BY:

National Accreditation Board for Testing & Calibration Laboratory (NABL), New Delhi
Jharkhand State Pollution Control Board (JSPCB)

Certificate No. - TC 7513

Water Test Report		URL (Unique Lab Report) No.	TC78132030000018P
Issued to :- M/s - Adhunik Power & Natural Resources Ltd. Vill - Padampur, Behind PGCIL substation, Jamshedpur-832402, Jharkhand		Job code - Chemical	YBAEEL/WI/LC/Mar-20/03
		Sample Code	200316-WW-E01
		Report ID	YBAEEL-200304-132814-WW01
		Date of Issue	23rd March 2020
		Type of Industries (* in case of Industrial Effluent)	Thermal Power Plant
Sample Name/Description	Effluent water	Sampling Protocol	YBAEEL/SP/01/00
Sample pkg. Condition	Sealed in plastic bottle	Sampling Date	14th March 2020
Sample Quantity	4000 ml	Mode of sample Collection	YBAEEL sampling team
Work allotted date	16th March 2020	Sampling Location	Final outlet of ETP
Test started on	16th March 2020	Sampling Source	Effluent Treatment Plant
Test completed on	23rd March 2020	Meteorological cond. (RH%, °C)	62 % / 28°C

Test Result

Sl. No.	Tested Parameter	Method	Unit	Results	Permissible Limit (As per IS 2490 Specification)
1.	pH value	IS 3025 (Part-11)	--	7.42	5.5-9.0
2.	Temperature*	IS 3025 (Part-09)	°C	26.6	40
3.	Total Suspended Solids	IS 3025 (Part-17)	mg/l	78.0	100
4.	Chloride (as CL ⁻)	IS 3025 (Part-32)	mg/l	15.0	1000
5.	Sulphate (as SO ₄ ²⁻)	IS 3025 (Part-24)	mg/l	11.5	1000
6.	Oil & grease	IS 3025 (Part-39)	mg/l	5.6	10
7.	BOD	IS 3025 (Part-44)	mg/l	12.2	30
8.	COD	IS 3025 (Part-58)	mg/l	72.8	250
9.	Phosphate (as PO ₄ ³⁻)*	IS 3025 (Part-31)	mg/l	0.03	-
10.	Copper (as cu)	APHA 3111 B	mg/l	0.02	3
11.	Iron (as fe)	APHA 3111 B	mg/l	0.32	--
12.	Zinc (as Zn)	APHA 3111 B	mg/l	ND (MDL 0.1)	5

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

Remarks:- According to the tested parameter, the given samples found to be under the limit of IS 2490.**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

 Tested by Saima Afrin Lab Analyst		 Checked by Bajrang Kumar Authorized Signatory		 Issued by Umesh Das Authorized Signatory Technical Manager	
An ISO 9001:2015 & OHSAS 18001:2007 Certified Laboratory Yugantar Bharati Analytical & Environmental Engineering Laboratory Post Box No. 32 Namson Post Office Sidrouli, Jamshedpur - 832004 (Jharkhand) Ph. 098351-91800, 9304955303 Tele Fax : 0651-2260787 E-mail : ybaeel@gmail.com					



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ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY



LAB ACCREDITED BY:

National Accreditation Board for Testing & Calibration Laboratory (NABL), New Delhi
Jharkhand State Pollution Control Board (JSPCB)

Certificate No. - TC 7813

Water Test Report		URL (Unique Lab Report) No.	TC78132030000019P
Issued to : M/s - Adhunik Power & Natural Resources Ltd. Vill - Padampur, Behind PGCIL substation, Jamshedpur-832402, Jharkhand		Job code - Chemical	YBAEEL/WI/L/C/Mar-20/04
		Sample Code	200316-WW-E02
		Report ID	YBAEEL-200304-132814-WW02
		Date of Issue	23 rd March 2020
		Type of Industries (* in case of Industrial Effluent)	Thermal Power Plant
Sample Name/Description	Effluent water	Sampling Protocol	YBAEEL/SP/01/00
Sample pkg. Condition	Sealed in plastic bottle	Sampling Date	14 th March 2020
Sample Quantity	4000 ml	Mode of sample Collection	YBAEEL sampling team
Work allotted date	16 th March 2020	Sampling Location	Final outlet of STP
Test started on	16 th March 2020	Sampling Source	Sewage Treatment Plant
Test completed on	23 rd March 2020	Meteorological cond. (RH%, °C)	62 % / 28°C

Test Result

Sl. No.	Tested Parameter	Method	Unit	Results	Permissible Limit (As per IS 2490 Specification)
1.	pH value	IS 3025 (Part-11)	--	6.72	5.5-9.0
2.	Temperature*	IS 3025 (Part-09)	°C	26.7	40
3.	Total Suspended Solids	IS 3025 (Part-17)	mg/l	68.0	100
4.	R-Chlorine	IS 3025 (Part-26)	mg/l	ND (MDL 0.07)	-
5.	Oil & grease	IS 3025 (Part-39)	mg/l	4.4	10
6.	BOD	IS 3025 (Part-44)	mg/l	14.4	30
7.	COD	IS 3025 (Part-58)	mg/l	102.8	250

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

Remarks:- According to the tested parameter, the given samples found to be under the limit of IS 2490,

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

Tested by Saima Afrin Lab Analyst	Checked by Bajrang Kumar Authorized Signatory	Issued by Umesh Das Technical Manager



Yugantar Bharati Analytical & Environmental Engineering Laboratory
ISO 9001:2015 & OHSAS 18001:2007 Certified Laboratory

Page 1 of 1



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YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY



LAB ACCREDITED BY:

National Accreditation Board for Testing & Calibration Laboratory (NABL), New Delhi
Jharkhand State Pollution Control Board (JSPCB)

Atmospheric Pollution Test Report		URL (Unique Lab Report) No.	TC78132020000090P
Report Release Date	23 rd March 2020	Report ID	YBAEEL-200304-132814-S01
Sample Description	Boiler Stack -01	Job code/ Ref. no.	YBAEEL/WA/LJA/Mar-20/08
Type of Industry	Thermal Power Plant	Work Order No./ Date	3030004681 / 18.02.2020
Issue to	M/s – Adhunik Power & Natural Resources Ltd. Vill – Padampur, Behind PGCIL substation, Jamshedpur-832402, Jharkhand		
Sampling Period	13 th March, 2020	Mode of sample collection	Sampling team of YBAEEL
Sampling Protocol	IS: 11255 & CPCB Guideline (Lats/80/2013-14)		
Meteorological Cond.	W.C. – Haze & Drizzling	RH % - 72%	Temp. – 22°C
Sample receipt Date	16.03.2020	Analysis Started on	16.03.2020
		Analysis completed on	23.03.2020

General Information

As observed while sampling		As reported by customer	
Location	Sampling port hole	Type of fuel Used	Coal
Platform	Permanent	Quantity of Fuel Used (during sampling)	168 T/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	Stack – 01	Inner Diameter of Stack	4.2mtr.
Height of port hole from Ground level	90mtr.	Pollution Controlling Device	ESP

Test Results

Sl	Parameter s	Test Method	Units	Results	Limits
1.	Stack gas Temperature	IS 11255 (Part 3)2008	k	387	-
2.	Stack gas Velocity	IS 11255 (Part 3)2008	m/s	25.3	-
3.	Volumetric Flow Rate	IS 11255 (Part 3)2008	Nm ³ /hr	964096.4	-
3.	Particulate Matter (PM)	IS 11255 (Part 1)2009	mg/Nm ³	42.8	50
4.	Sulphure Dioxide (SO ₂)	IS 11255 (Part 2)2009	mg/Nm ³	516.8	600
5.	Oxide of Nitrogen (as NO _x)	IS 11255 (Part 7)2005 RA 2012	mg/Nm ³	187.5	300

Emission Rate

1.	Particulate Matter (PM)	IS 11255 (Part 1)2009	Kg/hr	41.2	-
2.	Sulphure Dioxide (SO ₂)	IS 11255 (Part 2)2009	Kg/hr	498.2	-
3.	Oxide of Nitrogen (as NO _x)	IS 11255 (Part 7)2005 RA 2012	Kg/hr	180.7	-

End of Report

Remarks	Samples comply with the prescribed standard.		
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit,		
Note	The parameters marked with * are not accredited by NABL.		
Specific contractual notes	All values are expressed in as unit. The results listed refer only to the tested sample and applicable parameter. This report, in full or in part, shall not be used for advertising or as evidence in any court of law This report cannot be reproduced, except when in full, without the written permission of the Lab In-charge The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise The liability of the laboratory is limited to the invoiced amount All disputes are subjected to the Ranchi Jurisdiction		
Tested by	Amit Kr. Singh	Verified by	Brij Nandan Kumar
Lab Analyst		Section In-charge	
		Issued by	Umesh Das
		Authorized Signatory	Technical Manager



Yugantar Bharati Analytical & Environmental Engineering Laboratory

ISO 9001:2015 & OHSAS 18001:2007 Certified Laboratory



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