



# ADHUNIK POWER AND NATURAL RESOURCES LIMITED

WORKS : Village – Padampur, Behind P.G.C.I.L Substation,  
Adityapur Kandra Road, Saraikela – Kharswan : 832402, Jharkhand  
Phone: + 91-657-6628400, Fax: + 91-657-6688440

Ref: MOE&F, RNC/HYC/BN/281217/02

Dated: 28.12.2017

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 II) for the period –  
April 2017 to September 2017,-Reg.

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

Sir,

With reference to the above referred Environmental Clearance, we are pleased to submit  
herewith the half yearly compliance status report (Unit II) for the period of **April 2017 to  
September 2017.**

This is for your reference and record, please.

Thanking you,

For Adhunik Power & Natural resources Limited

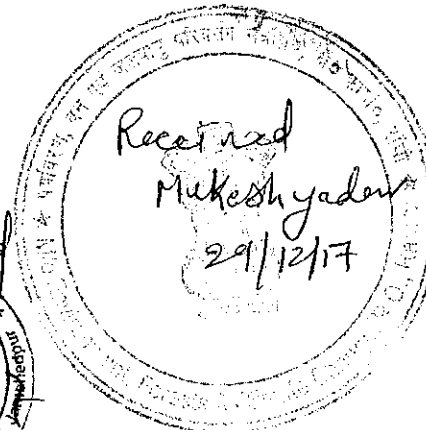
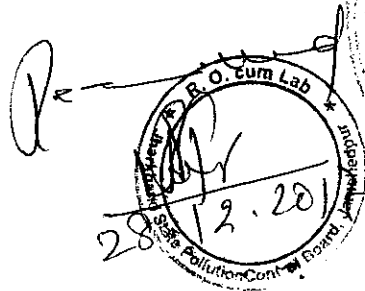
*B. O. S. Mishra*

(Authorized Signatory)

Encl: As Above

Copy to:

- ii) Central Pollution Control Board, Kolkatta
- ii) Member Secreatry, Jharkhand State Pollution Control Board, Jharkhand
- iii) Regional Officer, JSPCB, Jamshedpur



*Prof. Badrinath*  
29/12/17

# **REPORT**

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



**APRIL'2017 – SEPTEMBER'2017**

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

**Adhunik Power & Natural Resources Limited**

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

Environmental Clearance Letter No: J13012/8/2009-IA .II (T) dtd 9th May 2011.

Period Of Compliances: April,17-September,17

Sl No	EC Conditions	Status as on 30 <sup>st</sup> September 2017
<b>A. Specific Conditions:</b>		
i.	Environmental clearance for the proposed expansion shall be applicable only for addition of 1x270 MW out of proposed addition of 3x270. However at a later stage when firm coal linkage for second and third units of 270 MW are also available, the project proponent may request the Ministry for inclusion of second and third units i.e. 2x270 MW, which the Ministry shall consider appropriately.	Noted
ii.	The Ministry had issued a draft Notification on 30 <sup>th</sup> March, 2011 vide S.O. 691(E) under the Environment (Protection ) Act, 1986 notifying the areas upto 5 km from the boundary of the protected area of Dalma Wildlife Sanctuary in the State of Jharkhand as the Eco-sensitive Zone. The necessity of obtaining environmental clearance from the National Board for Wild life would arise only if the proposed project area falls within the boundary of the finally notified eco-sensitive zone.	As per notification date 29 <sup>th</sup> March 2012 project boundary are beyond the stipulated distance from the boundary of the protected area of Dalma Wildlife Sanctuary in the State of Jharkhand as the Eco-sensitive Zone. Notification regarding nearest distance from Dalma wildlife sanctuary enclosed as <b>Annexure I.</b> <b>Complied</b>
iii.	Wildlife conservation plan shall be implemented during the development of project itself and the status of implementation shall be submitted to the Ministry from time to time.	The Wild Life Management Plan (WLMP) has prepared already been approved by PCCF, Ranchi on May'10.2010. 1 <sup>st</sup> installment already submitted. <b>Complied</b>
iv.	Vision document specifying prospective plan for the site shall be formulated and submitted to the Ministry within six months.	Vision document report has submitted at MoEF on 30 <sup>th</sup> Dec 2011. <b>Complied</b>
v.	Possibility for harnessing solar power within the premises of the plant (particularly at available roof tops) shall be examined and status of implementation shall be submitted.	Noted and We are in process to installation of solar system in all vulnerable area for harnessing the solar energy.
vi.	Transport of coal shall be by rail only. The project proponent shall accordingly take up the matter with the Railways. Status of implementation shall be submitted to the Regional Office of the Ministry from time to time.	New Railway siding has been developed near Brirajpur railway station which is adjacent to Plant premises. <b>Complied</b>
vii.	A study shall be undertaken by an organization of repute such as RIT, Jamshedpur on source sustainability of water, based on the data of the source of water (Subarnarekha River) for the last 50 years and a report submitted within six months.	Water sustainability report has been prepared by IIT Kharagpur. Report was already submitted to MoEF BBS dated 11.11.11. <b>Complied</b>

viii.	Water usage shall be restricted to 30 MCM.	Complied.
ix.	The project proponent shall seriously undertake rain water harvesting measures and shall develop water storage capacity for a larger period not less than 30 days storage before commissioning of the plant. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology/design within a period of three months from the date of this clearance and details shall be furnished. The design of rain water harvesting shall comprise of rain water collection from the built up and open area in the plant premises. Action plan and road map for implementation shall be submitted to the Ministry within six months.	The Rain water harvesting report has already been submitted and approved from CGWA, Ranchi. Rain water harvesting structures has constructed in accordance with the approved rain water harvesting plan. <b>Complied</b>
x.	Existing de-generated water bodies (if any) in the study area shall be regenerated at the project proponents expenses in consultation with the state govt.	Degenerated pond has been renovated as per request from local people/Gram Panchayat .
xi.	Hydrogeology of the area shall be reviewed annually from an institute/ organization of repute to assess impact of surface water and ground regime (especially around ash dyke). In case and deterioration is observed specific mitigation measures shall be undertaken and reports/ data of water quality monitored regularly and maintained shall be submitted to the Regional Office of the Ministry.	The baseline ground water quality of ash pond area is already available with APNRL as part of EIA and ESIA study undertaken. However regular monitoring of ground water in and around ash pond area including heavy metals is being carried out periodically. Monthly monitoring of Water is being undertaken by APNRL in house laboratory. <b>Surface Water Analysis report and Ground water analysis report of upstream &amp; Downstream of Ash pond from April,17 to September,17 enclosed as Annexure II &amp; Annexure III respectively</b>
xii.	Source of water for meeting the requirement during lean season shall be specified and submitted to the Regional Office of the Ministry within three months.	Lean season data has already submitted To MoEF BBS on 19th aug 2011.Complied
xiii.	No ground water shall be extracted for use in operation of the power plant even in lean season.	Complied.
xiv.	No water bodies (including natural drainage system) in the area shall be disturbed due to activities associated with the setting up / operation of the power plant.	Complied.
xv.	Minimum required environmental flow suggested by the Competent Authority of the State Govt. shall be maintained in the Channel/ Rivers (as applicable) even in lean season.	Complying accordingly.
xvi.	COC of 5.0 shall be adopted.	COC 5.0 has been considered for cooling tower design.
xvii.	Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg, Cr,As,Pb)	Regular monitoring of ground water in and around ash pond area including heavy metals is being carried out & report submitted to MoEF. Data compared with baseline data. <b>Ground water analysis report of upstream &amp; Downstream of Ash pond from April,17 to September,17 enclosed as</b>

	and records maintained and submitted to the Regional Office of this Ministry. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project.	<b>Annexure III.</b>
xviii.	Monitoring surface water quality in the area shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall be undertaken.	<b>Surface Water Analysis report and Ground water analysis report of upstream &amp; Downstream of Ash pond from Oct,16 to March,17 enclosed as Annexure II &amp; Annexure III respectively</b>
xix.	Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved. The leveling in plant area should be minimum with no or minimal disturbance to the natural drainage of the area.	Complied.
xx.	Provision for installation of FGD shall be provided for future use	FGD space is provided on site for future use, however concentration of SO <sub>2</sub> in flue gas is well within prescribed limit.
xxi.	The project proponent shall undertake measures and ensure that no fugitive fly ash emissions take place at any point of time.	Strictly complying.
xxii.	Stacks of 275 m height shall be installed and provided with continuous online monitoring equipments for SO <sub>x</sub> , NO <sub>x</sub> and PM <sub>2.5</sub> & PM <sub>10</sub> . Exit velocity of flue gases shall not be less than 22 m/sec. Mercury emissions from stack may also monitored on periodic basis.	Twin flue chimney of 275m height has constructed for proper dispersion of flue gases. Online monitoring equipment has installed at chimney. Hg concentration is well within prescribed limits. Complied
xxiii.	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm <sup>3</sup> .	High efficient ESPs of 32 fields have installed to ensure control PM emission in flue gas. <b>Stack Monitoring report from April,17 to September,17 enclosed as Annexure IV .</b>
xxiv.	Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	Necessary mitigation measures in accordance with EMP and EC conditions has taken to control fugitive emissions from ash storage/transfer and coal handling plant such as installation and operation of bag filters collectors, use of water spray systems and enclosed conveyors with well designed, extraction and filtration equipment on transfer points. <b>Complied</b>
xxv.	Utilization of 100% Fly Ash generated shall be made from 4 <sup>th</sup> year of operation. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.	Agreements made with cement plants, brick plants, etc to ensure optimum utilization of fly ash.
xxvi.	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized fly ash shall be disposed off in the ash pond in the form of slurry form. Mercury and other heavy metals (As,Hg, Cr, Pb etc.) will be monitored in the bottom ash as also	02 No Silos has Constructed to storage of fly ash. Monitoring of mercury and other heavy metals (As, Hg, Cr, Pd etc.) in the bottom ash and also in the effluents emanating from the ash pond is being done periodically. <b>Bottom ash analysis report &amp; effluent analysis report of ash pond attached as</b>

	in the effluents emanating from the existing ash pond. No ash shall be disposed off in low lying area.	<b>Annexure V &amp; Annexure VI respectively.</b>
xxvii.	Ash pond shall be lined with HDPE/LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.	Complied.
xxviii.	For disposal of Bottom Ash in abandoned mines (if proposed to be undertaken) shall be done after obtaining due permission from DGMS and after ensuring that the bottom and sides of the mined out areas are adequately lined with clay before Bottom Ash is filled up. The project proponent shall inform the State Pollution Control Board well in advance before undertaking the activity	Not Applicable.
xxix.	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.6 % and 34 % respectively at any given time. In case of variation of coal quality at any point of time fresh reference shall be made to MOEF for suitable amendments to environmental clearance condition wherever necessary.	The sulphur and ash content in used coal conforms the limits. Complied.
xxx.	Green Belt consisting of 3 tiers of plantations of native species around plant and at least 75 m width shall be raised. The density of tree shall not less than 2500 per ha and survival rate not less than 80 %.	A thick green belt of adequate width is being developed. 57986 nos. (Area covered-42.2 acres) 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 Sep 2016. Survival rate of sapling is 86.4%. Total Survived plants are 50099. Plantation done till Sep 2017 is 6354 samplings. Name of Plant Species- Gulamohar, Neem, Pelatforum, Seesam, Bakul, Jamun etc. Details of Plantation attached as <b>Annexure VII</b> .
xxxi.	Over and above the green belt, as carbon sink, social forestry shall be carried out in close consultation with the Forests Department. The project proponent shall accordingly identify blocks of land / degraded forests and shall undertake regeneration of degraded forests at a large scale. In pursuance to this the project proponent shall formulate time bound action plan along with financial allocation and shall submit status of implementation to the Ministry within six months.	Green belt has been developed inside and around the plant premises.
xxxii.	At least three nearest village shall be adopted and basic amenities like development of roads, drinking water supply, primary health centre, primary school etc shall be developed in co-ordination with the district administration.	APNRL has adopted villages a. Barahariharpur b. Padampur c. Srirampur CSR is also providing the facilities in following villages

		<p>d. Pindrabera  e. Chotahariharpur  f. Ramjivanpur  g. Bikanipur etc.</p> <p>Details of CSR activity enclosed as <b>Annexure VIII.</b></p>
xxxiii.	The project proponent shall also adequately contribute in the development of the neighboring villages. Special package with implementation schedule for providing potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.	Details of CSR activity enclosed as <b>Annexure VIII.</b>
xxxiv.	A time bound implementation of the CSR shall be formulated within six months and submitted to the Ministry. CSR schemes shall be undertaken based on need assessment in and around the villages within 5 km of the site and in constant consultation with the village Panchayat and the District Administration. As part of CSR, prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken.	List of local employed youth enclosed as <b>Annexure IX. Complied</b>
xxxv.	For the tribal families (if any) living in the area within 5.0 Km of site, affected directly or indirectly by the proposed project, specific schemes for upliftment of their sustainable livelihood shall be prepared with time bound implementation and in-built monitoring programme. The status of implementation shall be submitted to the Regional Office of the Ministry from time to time.	Survey has been completed; report has been prepared. CSR activities started for upliftment of sustainable livelihood of tribal families in surrounding villages. Details of CSR activity enclosed as <b>VIII</b> for the period of <b>April,17 to September,17.</b>
xxxvi.	An amount of Rs 23.70 Crores shall be earmarked as one time capital cost for CSR programme as committed by the project proponent. Subsequently a recurring expenditure of Rs 4.74 Crores per annum shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within six month along with road map for implementation.	<p>Details of the activities report has submitted on MoEF on 9th Nov 2011.</p> <p>Complied.</p>
xxxvii	It shall be ensured that in-built monitoring mechanism for the schemes identified is in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time	<p>All CSR activities are monitored on weekly and monthly basis.</p> <p><b>Complied.</b></p>

<b>B. General Conditions:</b>		
i.	The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not do not get mixed.	<b>Complied.</b> <b>Treated effluent analysis report of Guard pond from April,17 to September,17 enclosed as Annexure X.</b>
		Adequate and separate drainage structures has provided to channel storm water generated onsite into rain water harvesting structures constructed in accordance with the approved rain water harvesting plan.
ii.	A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation	Complied
iii.	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry.	The design of coal yard along with provision of fire safety measures viz. fire hydrants, water sprinklers has installed. The details of the same along with plant lay out will be submitted to the Ministry. Complied
iv.	Storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil.	Approval received on dated 15/12/2011. License No. P/HQ/JH/15/1065 (P257355), for LDO storage installation (under Petroleum Class "C") for operations
		Emergency Response Plan (ERP) has prepared as part of the project ESMS to cater to potential emergencies/risks identified.
v.	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Plant is in operational condition however A first aid center comprising with necessary medical facilities is made available onsite to provide emergency medical aid to both contract workers and company staff. Complied.
vi.	Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 85 dBA from source. For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/less noisy areas	Adequate measures has implemented in consistent with the EMP to control turbine noise levels within stipulated limits. This include installing of sufficient engineering control in turbines as per design specifications, provision of ear plugs/ear muffs for workers exposed to high noise, rotation of workers and carrying out periodic audiometric testing of workers and records is being maintained. <b>Noise level monitoring report from April,17 to September,17 enclosed As Annexure XI.</b>
vii.	Regular monitoring of ambient air ground level concentration of SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>2.5</sub> & PM <sub>10</sub> 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	In house Monthly monitoring of Air quality is being conduct by APNRL. Review of air quality monitoring results revealed compliance to NAAQS. Realtime data of CAAQMS has been uploaded at CPCB & JSPCB website. <b>Ambient Air monitoring reports from April,17 to</b>

	measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry. The data shall also be put on the website of the company.	<b>September,17 enclosed As Annexure XII.</b>
viii.	Provision shall be made for the housing of construction labor (as applicable) within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Plant is in operational condition and local labors are coming from nearby villages. Complied
ix.	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> .	<b>Complied</b>
x.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad / Municipal Corporation, urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	<b>Complied</b>
xi.	An Environmental Cell comprising of at least one expert in environmental science / engineering, occupational health and social scientist, shall be created at the project site itself and shall be headed by an officer of appropriate superiority and qualification. It shall be ensured that the Head of the Cell shall directly report to the head of the organization and he shall be held responsible for implementation of environmental regulations and social impact improvement/mitigation measures.	A Environmental Management Cell consist high qualified environmental professionals are being operational onsite to ensure effective implementation of specific EMPs. <b>Organization chart of Environmental Management Cell enclosed as Annexure XIII.</b>
xii.	The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM (PM <sub>2.5</sub> & PM <sub>10</sub> ),	The updated compliance status of the stipulated EC conditions along with monitored data has been uploaded on the company website. The monitoring data (SPM, RSPM, SO <sub>2</sub> , NO <sub>x</sub> ) for both ambient air quality and chimney emissions is being displayed at the main gate of the company. Uploaded compliance status of the stipulated EC conditions along with monitored data can be seen on URL: <a href="https://www.adhunikgroup.com/uploads/ec_pdf/1">https://www.adhunikgroup.com/uploads/ec_pdf/1</a>

	SO <sub>2</sub> , NO <sub>x</sub> (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.	<b>497102626.pdf</b>
xiii.	The environment statement for each financial year ending 31 <sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.	The last environmental statement for financial year (2016-17) in Form V has submitted to JSPCB vide letter No: APNRL/JSPCB/ES/2016-17/02 dated 15 <sup>th</sup> Sep 2017. <b>Acknowledgement copy of same attached as Annexure XIV.</b>
xiv.	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests	Last six monthly reports for the project along with environmental monitoring data submitted to MoEF RO at Ranchi office vide letter No MOE&F,RNC/HYC/BN/281116/02 ,dated 30 <sup>TH</sup> May 2017. <b>Acknowledgement copy of same attached as Annexure XV.</b>
xv.	Regional Office of the Ministry of Environment & Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six monthly basis. Criteria pollutants levels including NO <sub>x</sub> (from stack & ambient air) shall be displayed at the main gate of the power plant.	A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information already submitted to the Board. The updated compliance status of the stipulated EC conditions along with monitored data has been uploaded on the company website. The monitoring data (SPM, RSPM, SO <sub>2</sub> , NO <sub>x</sub> ) 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 on regular basis as per the requirement. Complied
xvi.	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.	Adequate budgetary provision has been made by the APNRL for execution of environmental management plan. Details of item wise expenditure incurred on environmental measures for the financial year 2017-18 shall be submit On or before June 2018.

xvii.	The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant	<b>Complied</b>
xviii.	Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry at Bangalore / CPCB/ SPCB who would be monitoring the compliance of environmental status	We ensure.

**कार्यालय :- प्रधान मुख्य वन संरक्षक झारखण्ड, राँची।**

पत्रांक:-19एम01(6)29/2008 2574 दिनांक:-23.7.09

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

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

विभागीय पत्रांक-308, दिनांक-04.02.09

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

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

*Bh.*

- क्षेत्र के पास पूर्व चिन्हित नहीं है। उपरोक्त गज-कोरीडोर को दिखाते हुए नक्शा (अनुलग्नक-2) दो प्रतियों में संलग्न है।
5. वन प्रमण्डल पदाधिकारी, वन्यप्राणी प्रमण्डल, रांची के द्वारा अपने प्रतिवेदन में यह उल्लेख किया गया है कि दलमा वन्यप्राणी आश्रयणी की दक्षिणी सीमा पर स्वर्णरेखा नहर की गहरी खोदाई के कारण इस क्षेत्र में हाथियों का आवागमन अनियमित है। उन्होंने यह भी वर्णित किया है कि आश्रयणी से हाथियों का आवागमन रामगढ़, एन0एच0-33, जोभी, कपालन, तमोलिया होते हुए पुनः आश्रयणी की ओर हो रहा है। पूर्व में यह पलना जलाशय तक होता था, जो वर्तमान में नहर की खोदाई के कारण बाधित है। इस संबंध में नक्शे की समीक्षोपरांत यह पाया गया है कि यदि हाथियों का आवागमन पूर्ववतः आश्रयणी से पलना जलाशय तक होता भी है तब भी प्रस्तावित स्थल ऐसे किसी आवागमन मार्ग के बीच में नहीं आयेगा। पलना जलाशय की लोकेशन को दर्शाते हुए एक नक्शा भी इस पत्र के साथ संलग्न किया जा रहा है जिससे स्पष्ट होगा कि यह जलाशय प्रस्तावित स्थल से लगभग 17 कि०मी०(उत्तर पूर्व) की दूरी पर अवस्थित है। प्रस्तावित स्थल होकर हाथियों का आवागमन होने की या कोई पूर्व-स्थापित गज-कोरीडोर होने की कोई ठोस सूचना/प्रमाण उपलब्ध नहीं है।
  6. झारखंड राज्य में गज-कोरीडोर को चिन्हित करने का कार्य एक स्वयंसेवी संस्था "वाइल्ड लाइफ ट्रस्ट ऑफ इण्डिया, नई दिल्ली" के द्वारा किया गया है। इस कार्य में झारखंड वन विभाग के द्वारा भी सहयोग किया गया था। उपरोक्त स्वयंसेवी संस्था द्वारा प्रकाशित 'Right of Passage- Elephant Corridors of India' नामक पुस्तक में झारखंड राज्य के लिए कुल 14 गज-कोरीडोर वर्णित है तथा इसी सूचना के आधार पर कंडिका चार में वर्णित तीन गज कोरीडोर को नक्शे पर दर्शाया गया है।
  7. प्रस्तावित स्थल के आसपास कई अन्य उद्योग, यथा पावर ग्रिड कॉरपोरेशन ऑफ इण्डिया लि०, बी०के० स्टील आई०ओ०सी०एल०, टी०सी०एस०, उषा मार्टिन, नीलांचल स्टील, आदि स्थापित हैं। यह अनुलग्नक-3 पर दो प्रतियों में उपलब्ध नक्शे से स्पष्ट है। इस क्षेत्र में कई उद्योग होने के कारण भी इसे दलमा वन्यप्राणी आश्रयणी के प्रस्तावित इको-सेंसिटिव जोन से बाहर रखा गया था।
  8. वन प्रमण्डल पदाधिकारी, वन्यप्राणी प्रमण्डल, रांची ने प्रस्तावित स्थल दलमा आश्रयणी एवं elephant bearing area के समीप होने के कारण हाथियों के आवागमन पर पड़ने वाले प्रतिकूल प्रभाव की संभावना बताते हुए प्रस्तावित परियोजना हेतु अनापत्ति प्रमाण-पत्र निर्गत नहीं करने की अनुशंसा की है। परंतु वन संरक्षक, वन्य प्राणी अंचल, रांची ने वन प्रमण्डल पदाधिकारी द्वारा अपने प्रतिवेदन में उठाए गये विभिन्न विन्दुओं पर

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

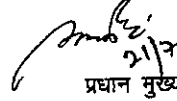
8. प्रधान मुख्य वन संरक्षक, जैव विविधता संरक्षण एवं मुख्य वन्यप्राणी प्रतिपालक, झारखण्ड, रांची द्वारा अग्रलिखित शर्त पर संबंधित परियोजना हेतु एनओसी निर्गत करने की अनुशंसा की गई है कि EIA के ToR की शर्त V के आलोक में प्रयोक्ता अभिकरण को इस आशय की यत्नबद्धता देनी होगी कि प्रयोक्ता अभिकरण वन्य प्राणी विशेषज्ञ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

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

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

अनु०—यथोक्त।

विश्वासभाजन,



प्रधान मुख्य वन संरक्षक,  
झारखण्ड, रांची।

2/1/17

# Adhunik Power & Natural Resources Limited, Padampur

## SURFACE WATER SAMPLE ANALYSIS RESULTS FOR BADAHARIHARPUR POND

Sr. No	Parameters	Unit	April	May	June	July	August	September
			2017	2017	2017	2017	2017	2017
1	Colour	Hazen	<5	<5	<5	<5	<5	<5
2	Odour		Odourless	Odourless	Odourless	Odourless	Odourless	Odourless
3	pH	mg/l	7.3	7.4	7.6	7.2	7.4	7.6
4	Temperature		22.8	23.6	21.6	23.4	22.8	23.7
5	Oil & Grease	°C	ND	ND	ND	ND	ND	ND
6	Electrical Conductivity	mg/l	523	489	488	526	542	541
7	Dissolved Oxygen	mg/l	5.3	5.1	5.3	5.2	5.3	5.1
8	BOD at 270C (3days)	mg/l	3.1	2.6	2.7	2.9	2.7	3.1
9	Total Coliforms	mg/l	Nil	Nil	Nil	Nil	Nil	Nil
10	Total Dissolve Solids	mg/l	167	176	174	189	176	185
11	Total Hardness as CaCO <sub>3</sub>	mg/l	139.5	142.6	139.4	141.3	136.9	140.3
12	Chloride as Cl	mg/l	128.7	120.8	125.3	162.4	176.4	181.3
13	Sulphate as SO <sub>4</sub>	mg/l	44.3	42.7	43.1	44.3	42.1	42.9
14	Nitrate as NO <sub>3</sub>	mg/l	7.8	6.3	5.9	5.4	5.3	6.1
15	Free CO <sub>2</sub>	mg/l	1.9	2.01	2.12	2.21	2.13	2.1
16	Free NH <sub>3</sub>	mg/l	0.0136	0.0142	0.0162	0.0166	0.0153	0.0159
17	Fluoride as F	mg/l	0.0312	0.0311	0.0324	0.0341	0.0326	0.0351
18	Calcium Hardness	mg/l	43.1	42.8	41.3	40.6	42.6	45.6
19	Magnesium as Mg	mg/l	15.8	12.6	11.9	12.8	11.8	10.9
20	Copper as Cu	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
21	Iron (fe)	mg/l	0.141	0.136	0.041	0.052	0.061	0.073
22	Manganese (Mn)	mg/l	0.0123	0.0129	0.0134	0.0142	0.0139	0.0142
23	Zinc as Zn	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
24	Boron (B)	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
25	Arsenic (As)	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
26	Mercury (Hg)	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
27	Lead (Pb)	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
28	Cadmium (Cd)	mg/l	ND	ND	ND	ND	ND	ND
29	Hexavalent Chromium(Cr+6)	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
30	Selenium(Se)	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
31	Cyanide (CN)	mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
32	Phenol (C6H5OH)	mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
33	Anionic detergents (MBAS)	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
34	Sodium(Na)	mg/l	73	69	62	63	61	62



# Adhunik Power & Natural Resources Limited, Padampur

## STACK EMISSION MONITORING REPORT

Sl.No.	UNIT-2			
	PARAMETERS	PM	SO2	NOX
	AS PER CONSENTED NORMS	100 mg/Nm <sup>3</sup>	ND	ND
1	Apr-17	38.9	501.8	287.3
2	May-17	35.9	512.1	290.3
3	Jun-17	39.7	536.7	234.8
4	Jul-17	32.9	486.7	235.7
5	Aug-17	35.3	491.3	276.4
6	Sep-17	S/D	S/D	S/D

\* SO2 -mentioned in mg/Nm<sup>3</sup>

\* NOx -mentioned in mg/Nm<sup>3</sup>

**Adhunik Power & Natural Resources Ltd, Padampur**  
**ASH ANALYSIS REPORT -May 2017**

<b>SI No</b>	<b>Parameters</b>	<b>Bottom Ash</b>	<b>Unit</b>
1	Arsenic (as As)	<0.01	PPM
2	Mercury (as Hg)	<0.01	PPM
3	Chromium (as Cr)	0.0312	PPM
4	Lead (as Pb)	0.0464	PPM
5	Antimony (as Sb)	ND	PPM
6	Berelliyum (as Be)	ND	PPM
7	Cadmium (as Cd)	0.0369	PPM
8	Copper (as Cu)	0.0561	PPM
9	Nickel (as Ni)	0.0635	PPM
10	Selenium (as Se)	0.0245	PPM
11	Silver (as Ag)	ND	PPM
12	Tin (as Sn)	ND	PPM
13	Zinc (as Zn)	0.0624	PPM
14	Unburnt Carbon	1.2	%

**Adhunik Power & Natural Resources Ltd, Padampur**  
**Ash Pond water analysis report**

Sr. No	Parameters	LIMIT AS PER E(P) A FOR INLAND SURFACE WATER DISPOSAL	Unit	April	May	June	July	August	September
				2017	2017	2017	2017	2017	2017
1	pH	5.5 to 9	mg/L	7.5	7.2	7.4	7.3	7.4	7.5
2	Suspended Solids	100	mg/L	64.3	62.3	35.4	34.7	32.7	35.4
3	Temperature	-	mg/L	21	22	21	23	25	26
4	Oil & Grease	10	mg/L	ND	ND	ND	ND	ND	ND
5	Mercury (as Hg)	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6	Arsenic (as As)	-	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7	Total Chromium (as Cr)	-	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
8	Lead (as Pb)	-	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

\* Effluent Water from ash pond again used for Ash handling Process.

## Green Belt Development

GREEN BELT DEVELOPMENT		
01	Afforestation	A thick green belt of adequate width is being developed.57986 nos.(Area covered-42.2 acres) 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 Sep 2017. Survival rate of sapling is 86.4%. Total Survived plants are 50099. Plantation done till Sep 2017 is 6354 samplings. Name of Plant Species- Gulamohar, Neem, Pelatforum, Seesam, Bakul, Jamun etc.
02	Landscape & Gardening	We develop world class landscape and garden inside and outside of plant premises to control soil erosion and making healthy working environment



**Adhunik Power & Natural Resources Limited, Padampur  
(Block-Gamharia, District-Saraikela-Kharsawan, Jharkhand)**

**Report on Corporate Social Responsibility Initiatives: Half Yearly (April 2017- Sept. 2017)**

Adhunik Power & Natural Resource Limited (APNRL)'s corporate social responsibility (CSR) activities reflect its philosophy of helping to build a better, more sustainable society through sound business practices and innovation, which attribute and earn the trust & expectations of stakeholders.

APNRL believes that its CSR activities and those of its employees will not only contribute to the realization of a sustainable society but also enhance APNRL's corporate value.

The focus areas of Sustainable development projects are **Health, Sanitation, Education, Women Empowerment, Sports and Infrastructure Development**. APNRL had taken up new initiative during the last six months (April 2017- September2017) in periphery villages of Rapcha and Dugdha Gram Panchayat as follows:

**Health & sanitation**

**Safe drinking water under project Amrit Dhara:** Our ongoing Project Amrit Dhara is especially designed under PPP mode for serving the people of Gamharia Block, Saraikela who are our fellow citizens and long deprived of proper drinking water and now, about 1000 members a day are using safe drinking water. They are much satisfied with the processes and cleanliness of the plant.

<b>Status of Supply of Safe Drinking Water</b>		
<b>Area Covered</b>	<b>No. of House Hold</b>	<b>Mode of delivery</b>
Gamharia, Chota Gamharia, Jharkuli etc.	942	Self & Van
Padampur, B'hariharpur, Srirampur Kandra, Chitakoot	245	Through Van
Govt. School, B'Hariharpur	1 School	Through Van

**Sanitation Campaign:**

Under the Corporate social responsibility, the company has taken an initiative towards sanitation campaign in different villages of Rapcha & Dugdha Gram to protect the villagers from water borne diseases.

<b>Sanitation campaign</b>			
<b>S.N</b>	<b>Activities done</b>	<b>Benefited</b>	<b>Village Covered</b>
1.	Training on Hand Wash- April & May 2017	400 Students	Padampur, B'Hariharpur & Pindrabera
2.	Health Awareness Drive May 2017	200 villagers	Rapcha, Padampur, B'Hariharpur, Dugdha & Haridih
3.	Rally on Health Awareness May 2017 (Started from 4.5.2017)	200 villagers	Rapcha, Padampur, B'Hariharpur, Dugdha & B'Haridih

**Health Awareness Drive and spray bleaching powder: Health is a major concern of people in periphery**



Villages, as observed particularly in the rainy season most of the diarrhea cases have been found. Main cause of diarrhea is polluted water and unhygienic condition of the village surroundings. The CSR Dept. of APNRL has shown its solidarity by initiation of **Health Awareness Drive** in the villages like; Rapcha of Rapcha Gram Panchayat, Dugdha Gram Panchayat ,etc. the cleanliness and control of the diarrhea, malaria etc. and also **sprayed bleaching powder** in drainages, wells and water logging area during the drive to stop mosquito breeding in order to prevent various diseases caused by dirt & mosquitoes etc.



**Celebrate World Anti-Tobacco Day 31.5.2017: Signature campaign** organized on the occasion of **World Anti- Tobacco Day** in plant premises on 31<sup>st</sup> May 2017 to raise awareness amongst the workers/employees against bad effect of tobacco in human body. Signature campaign initiated by the



Plant Head Mr. B. N. Nellikwar with message writing on display board as **"Get free from tobacco & lead**

a happy life". It revealed that the people were very enthusiastic and came forward to take part in the signature campaign to reduce the use of the tobacco in our plant as well as in the country.

We also organized **Seminar and Essay & Drawing Competition** at Panchayat Bhawan Dugdha where about 150 Villagers participated in this program. Winner of Essay competition – 1<sup>st</sup> prize to Ms. Shuvawati Kumar Mahato, 2<sup>nd</sup> prize to Malti Hasda, 3<sup>rd</sup> to Ms. Sati Das and 4<sup>th</sup> prize given to Ms. Gurubari Hasda. Drawing Competition- 1<sup>st</sup> prize to Mr. Raju Hansda, 2<sup>nd</sup> to Ms. Baby Kumari Patra, 3<sup>rd</sup> to Mr. Sukula Majhi and 4<sup>th</sup> prize to Bhosoko Tudu.

**World Breastfeeding Week-2017** -The Company has always been empowering the village women through various training events to lead their life with sustainable social recognition. CSR-Department APNRL organized **Seminar, Healthy Baby Show & Annaparasan** on the occasion of World Breastfeeding Week on 4.8.2017, at Conference Hall, Rapcha Gram Panchayat, Rapcha for promotion of the breastfeeding and to reach Millennium Development Goal (MDG) 4 (to reduce under five mortality by two thirds).



Our Chief Guest **Mr. B. Nellikwar- Plant Head, APNRL** explained that breastfeeding is absolutely essential in the first six months and should continue up to two years along with regular food. Breast milk contains nutrients that are vital for the infant in the first few months. Research has demonstrated that mothers require active support for establishing and sustaining appropriate breastfeeding practices.

Hon'ble Guest **Ms. Kiran Singh- Scientist, Krish Vigayan Kendra, Saraikela** explained the importance of breastfeeding within one hour of birth and exclusive breastfeeding up to six months and to retain continuity of the said practice for two further years. She also insisted for appropriate complementary feeding for children to start after 6 months of age. She informed that colostrum, the yellowish, sticky breast milk produced at the end of pregnancy as the perfect food for the newborn.



**Ms. Sukmati Mardi –Mukhiya, Rapcha Panchayat** said that Breastfeeding is the normal way of providing young infants with the nutrients they need for healthy growth and development.

Approx. 100 women participated in the seminar with their babies. For the promotion of breastfeeding, 3 best children from various villages were selected in each age group of 0 to 6 months and their mothers were also felicitated accordingly. The remaining children were also gifted with consolation prize as a token of motivation.

Following persons were also present during this occasion – Mr. Sanjeet Kumar Sinha, Sr. Manager-CSR, Ms. Sunita Devi-CSR, Kriti Mahali-NNS, AWWs and Helpers of AWCs.

At the end of the seminar Sunita Devi – CSR thanked all the participants and speakers.



**National Nutrition Week -2017** - Under the social responsibilities, CSR Department, APNRL, Padampur



observed National Nutrition Week on 5<sup>th</sup> Sept'2017 at Community Hall, Badahariharpur village which covered **5 villages**. The main objective was to raise awareness amongst the villagers the importance of health nutrition which has an impact on development, productivity, economic growth and ultimately National development. Prakhnd Pramukh, Gamharia Block, District Social Welfare Officer(DSWO)-ICDS, Saraikela, Lady Extension Officer, Gamharia , Lady Supervisor-ICDS,

Sanjeet Kumar Sinha-CSR, APNRL Sunita Devi-CSR, APNRL, Ajeet Kumar-CSR, AAPL, Laxmi Devi-CSR AAPL ,Srimant Mahato-NNS, Ambika Mahato-NNS Anganbadi Sevikas and approximately 100 women with their children from 5 villages namely Srirampur, Padampur, Bikanipur, Badahariharpur, Balidih had participated in this programme.

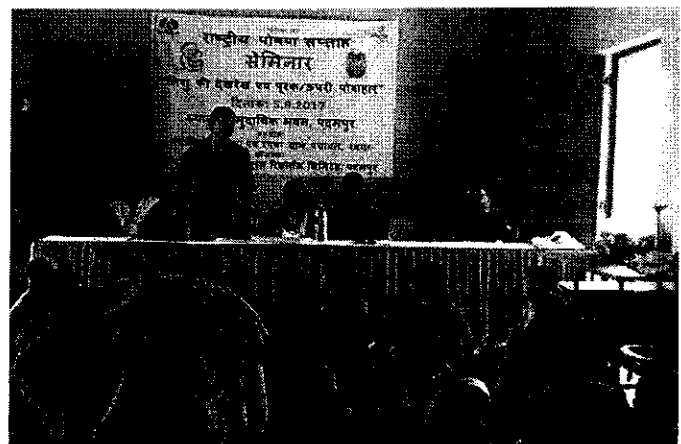
The **chief guest** of programme **Mrs Amrita Tudu, Prakhnd Pramukh, Gamharia** said that Essential Nutrition is very crucial at Critical Stages in the Life Cycle of Women and Children. She was thankful to Adhunik CSR team for organising such an awareness program.

**Hon'ble Guest District Social Welfare Officer, Saraikela- Ms. Surichi Prasad** explained & advised the participating women as follows–

(a) Essential nutrition required before and after pregnancy and also the lactation period.

(b) Promotion of breast feeding by-

- Early initiation of breastfeeding within 1 hour of birth.
- Exclusive breastfeeding for 6 months age of infants.
- Continue breastfeeding during illness.



- Introduction of nutritionally-adequate and safe complementary (semi solid) foods after 6 months together with continued breastfeeding up to 2 years of age or beyond.

Ms. VimolaTriky, Lady Extension Officer (LEO), Gamharia said that women should be extra careful to avoid Iron Deficiency & anemia through eating iron rich food, De-worming in every six months, sleeping under an Insecticide Treated mosquito Net in areas where malaria is widespread.

At the end of the seminar Sunita Devi – CSR thanked all the participants and speakers.

#### Ambulance Services:

Ambulance, as pre-hospital emergency care, is provided to patients of near villages before they are shifted to a hospital or appropriate healthcare facility. During the six months, a total of **77 village patients underwent** and availed the ambulance facilities. 24 X 7 ambulance facility is provided to the peripheral villagers for better treatment. The objectives of introducing the Ambulance Service was:



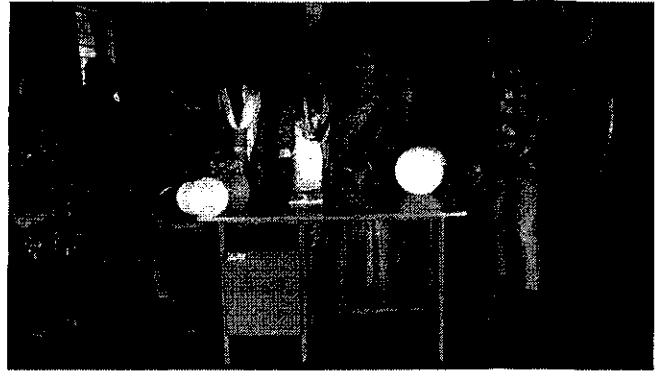
- To ensure timely referral health services to the needy village patients.
- To facilitate the pregnant women for timely institutional delivery.

#### Skill Development Training/ Vocational Training

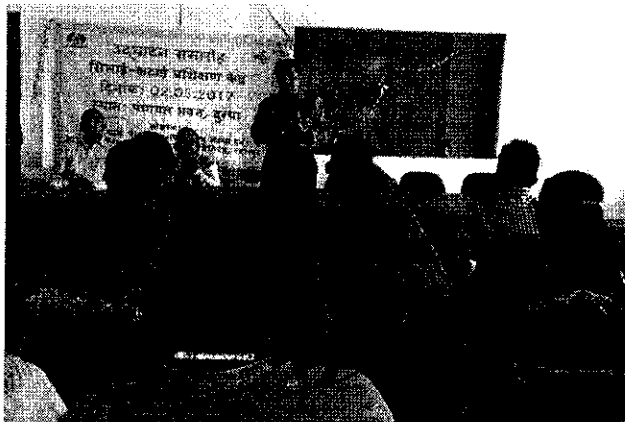
**Computer Training:** Computer Center for village youth is running under ongoing project Cyber Village in three villages namely; Rapcha, Badahariharpur and Dugdha of Rapcha Gram Panchayat and Dugdha Gram Panchayat respectively. A total of 62 rural students passed out from the 3- center last six months. (April 2017 – September 2017).



**Farewell Function at Computer Center Badahariharpur:** The students of Cyber Village Badahariharpur Centre organized a Farewell function on 23.6.2017 to say goodbye to their seniors. Separation is something that can give difficult times. It's never easy to say goodbye and express farewell wishes to classmates and teachers. It may be hard to say good bye but the "GOOD" with it is a promise of something better. Cultural Programme and a short play were organized by the students on this occasion to make the moment joyful. Mrs. Sunita Devi, CSR APNRL was also present during the function at Badahariharpur.



**Tailoring Training: Opening of new Tailoring Center, Dugdha:** Dugdha Gram Panchayat, Adhunik Power & Natural Resources Limited and Nav Nirmal Sanstha have jointly taken up sewing & tailoring training center at Panchat Bhawan, Dugdha for the village women & youths Under Corporate Social



Responsibility. On May 2, 2017, the large numbers of villagers including Women & Youths were present during the inauguration ceremony. Chief Guest Mr. B.N. Nellikwar –Plant Head, Adhunik Power & Natural Resources Limited cut the ribbon declaring the formal inauguration of Tailoring Center, Dugdha. He said that “we are thankful to Dugdha Gram Panchayat, Dugdha for opening the center in order to develop our society” which will further help them in pursuing their career.

Mrs. Malti Hasda, Mukhiya of the Dugdha Panchayat thanked APNRL, and Nav Nirman Sanstha for taking up this initiative in the interest of village women & youth to provide them tailoring training. The objective of the center is towards empowerment of women and generating additional income to meet their basic needs. The training center is equipped with 5 sewing machines, where 42 mahilas are enrolled and provided with required training.



Engagement Opportunities for Trained Youth		
Skill Development	Engagement	Average Monthly Income Level (INR)
1. Computer Training	Institute/Shops /Govt. / Private Sector- 1. Data Entry 2. DTP/ Typing work 3. Accounts-Tally	INR 3000 to INR 7000
2. Tailoring Training	Institute/Shops 1. Individual Women Tailors 2. Engaged in Tailoring shop	

**Bus facilities for village girl students:** The Company has been providing Bus facility to girl students of peripheral villages for promotion of girls' education and higher education. About 40 girls' students availed the Bus facilities on daily basis.



### Women Empowerment / Livelihood

**Strengthening of Self Help Groups:** Adhunik Power & Natural Resources Limited (APNRL), Padampur is promoting sustainable livelihood project for the poor and vulnerable groups such as; village women under its Corporate Social Responsibility towards capacity building and livelihood promotion.

In order to strengthening of Self Help Groups (SHG) members, we facilitated the meeting of SHG in regular basis in villages Padampur, Badahariharpur, Chotahariharpur , Srirampur , Shankarpur, Pindrabera & Ramchandrapur for SHGs in promoting micro saving and inter loaning activities and the Company also organized trainings on various livelihood activities to make them capable for additional source of income.



**Agarabatti production at Srirampur:** Jagriti Mahila Samiti (Self-help group) of Srirampur engaged in making of Agarabatti with help of Adhunik Power & Natural Resources Limited, Padampur under support of company CSR. This has helped them in increasing corpus fund for their group. They have made this activity as their livelihood.



**Murhi packages and selling (trading) & spice making:**

15 - Members of Jaher Ayo Mahila Samiti Self-help group of Pindrabera engaged in Murhi packaging and selling (trading). This has helped them in increasing corpus fund for their group. They have made this activity as their livelihood. They earned about Rs. 5000/- to -6000/- per month. Also the members of Mahila Samiti (SHG) engaged in spice making as their livelihood.

**Mansa Devi Self-help Group initiates Phenyl production at Srirampur:** Adhunik Power & Natural

Resources Limited (APNRL), Padampur support to Mansa Devi Self-help Group, Srirampur for Phenyl Making at Srirampur Village of Dugdha Gram Panchayat to promote sustainable livelihood for the poor and vulnerable groups such as village women. Phenyl making and selling has helped them in increasing corpus fund for their group. They earned Rs. 2000/- to 3000/- every month.

Ms. Vimla Tirky, Lady Extension Officer-Gamharia, visited on 21.4.2017 at Srirampur. She interacted with the SHG members and also reviewed the status of phenyl production and records. She advised to increase production and marketing and proper documentation of products.



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## ADHUNIK POWER & NATURAL RESOURCES LTD, PADAMPUR

Sl.No.	Emp. Code	Name of Employee	Designation	Department	Location
1	302223	Mr. Arun Mahato	Helper	Electrical	Padampur Site
2	302236	Mr. Rajen Kumar Tudu	Technician	WTP, Utilities	Padampur Site
3	302237	Mr. Bangal Majhi	Technician	Horticulture	Padampur Site
4	302384	Mr. Lal Mohan Mahato	Asst. Supervisor	Civil	Padampur Site
5	302386	Mr. Budhram Baskey	Technician	Operation	Padampur Site
6	302387	Mr. Ajit Mahato	Technician	Operation	Padampur Site
7	302393	Mr. Bijay Baskey	Technician	Civil	Padampur Site
8	302430	Mr. Laxman Baskey	Driver	Medical Services	Padampur Site
9	302436	Mr. Raja Ram Majhi	Technician	Automobile	Padampur Site
10	302453	Ms. Paneshwari Kumari	Semi-Skilled	Horticulture	Padampur Site
11	302454	Mr. Sunil Baskey	Semi-Skilled	Coal Logistics	Padampur Site
12	302458	Mr. Nuna Baskey	Helper	Civil	Padampur Site
13	302462	Mr. Rajesh Kumar Mahato	Fitter	Civil	Padampur Site
14	302463	Mrs. Sonia Baskey	Semi-Skilled	CSR	Padampur Site
15	302493	Mrs. Surajmani Baskey	Semi-Skilled	EMD	Padampur Site
16	302494	Mrs. Saraswati Devi	Semi-Skilled	Medical Services	Padampur Site
17	302495	Mrs. Anita Mahato	Assistant	Maintenance	Padampur Site
18	302501	Mrs. Bangi Baskey	Semi-Skilled	AHP	Padampur Site
19	302503	Mr. Raju Tudu	Technician	Electrical	Padampur Site
20	302506	Mr. Ruhi Ram Majhi	Welder	Maintenance	Padampur Site
21	302507	Mr. Dilip Mahato	Helper	WTP, Utilities	Padampur Site
22	302508	Mr. Dulal Mahato	Helper	Fire	Padampur Site
23	302509	Mr. Raju Mahato	Helper	WTP, Utilities	Padampur Site
24	302510	Mr. Santosh Mardi	Electrician	Electrical	Padampur Site
25	302515	Mr. Ajay Kumar Mahato	Technician	Electrical	Padampur Site
26	302516	Mr. Rajesh Mahato	Technician	Electrical	Padampur Site
27	302517	Mr. Mohan Lal Mahato	Technician	Electrical	Padampur Site
28	302518	Mr. Sumit Kumar Mahato	Technician	Electrical	Padampur Site
29	302519	Mr. Tapan Kumar Mahato	Technician	Electrical	Padampur Site
30	302520	Mr. Bibhishan Mahato	Technician	Automobile	Padampur Site
31	302521	Mr. Suku Murmu	Technician	Automobile	Padampur Site
32	302522	Mr. Bimal Kumar Mandal	Technician	Operation	Padampur Site
33	302523	Mr. Bablu Besra	Technician	Operation	Padampur Site
34	302524	Mr. Vikram Baskey	Technician	Maintenance	Padampur Site
35	302525	Mr. Mangal Besra	Technician	Operation	Padampur Site
36	302526	Mr. Bir Singh Hembram	Technician	Maintenance	Padampur Site
37	302527	Mr. Gopal Hembrom	Technician	Operation	Padampur Site
38	302528	Ms. Chhatamuni Baskey	Helper	Stores	Padampur Site
39	302529	Mr. Durga Hembrom	Technician	Operation	Padampur Site
40	302530	Mr. Suren Baskey	Technician	Operation	Padampur Site
41	302531	Mr. Dasmath Hembrom	Technician	Operation	Padampur Site
42	302532	Mr. Budheswar Baskey	Technician	Operation	Padampur Site
43	302533	Mr. Karan Hembrom	Technician	Operation	Padampur Site
44	302534	Mr. Umesh Tudu	Technician	Operation	Padampur Site
45	302540	Mr. Birendranath Baskey	Driver	Medical Services	Padampur Site
46	302541	Mr. Shailendra Tudu	Driver	Medical Services	Padampur Site
47	302550	Mr. Birdhan Baskey	Technician	Automobile	Padampur Site
48	302574	Mr. Anil Sardar	Technician	Civil	Padampur Site
49	302602	Mrs. Sarla Majhi	Assistant	Admin.	Padampur Site
50	302603	Mrs. Sunita Devi	Assistant	CSR	Padampur Site
51	302604	Mr. Sohan Kisku	Technician	Electrical	Padampur Site
52	302605	Mr. Dilip Kisku	Technician	Electrical	Padampur Site

53	302606	Mr. Rabindra Nath Majhi	Technician	Operation	Padampur Site
54	302607	Mr. Mokra Murmu	Technician	Electrical	Padampur Site
55	302608	Mr. Lakhiram Tudu	Technician	Maintenance	Padampur Site
56	302609	Mr. Durga Baskey	Technician	Maintenance	Padampur Site
57	302610	Mr. Jiten Hansda	Technician	Operation	Padampur Site
58	302611	Mr. Jiten Sardar	Technician	Operation	Padampur Site
59	302612	Mr. Ashok Kumar Mahato	Technician	Operation	Padampur Site
60	302613	Mr. Mangal Majhi	Technician	Electrical	Padampur Site
61	302614	Mr. Sagram Tudu	Technician	Electrical	Padampur Site
62	302615	Mr. Sunil Kumar Tudu	Technician	Operation	Padampur Site
63	302616	Mr. Ganesh Mahato	Technician	Electrical	Padampur Site
64	302617	Mr. Sachin Kumar Tudu	Technician	Operation	Padampur Site
65	302618	Mr. Alok Mahato	Technician	Electrical	Padampur Site
66	302619	Mr. Rakesh Kumar Mahato	Technician	Operation	Padampur Site
67	302620	Mr. Chhotray Majhi	Technician	Operation	Padampur Site
68	302621	Mr. Devi Lal Majhi	Semi Skilled	Civil	Padampur Site
69	302622	Mr. Govind Majhi	Technician	Electrical	Padampur Site
70	302628	Mr. Kalipada Singh Sardar	On the Job Trainee	CHP	Padampur Site
71	302644	Mr. Vikram Singh Sardar	Semi-Skilled	Intake Well	Padampur Site
72	302645	Mr. Manik Singh Sardar	Technician	Intake Well	Padampur Site
73	302646	Mr. Jagannath Singh Sardar	Semi-Skilled	Intake Well	Padampur Site
74	302647	Mr. Budheshwar Mahato	Semi-Skilled	Intake Well	Padampur Site
75	302659	Mr. Krishna Manjhi	Un-Skilled	CHP Lab	Padampur Site
76	302660	Mr. Sakla Hembrom	Un-Skilled	Maintenance	Padampur Site
77	302661	Mr. Uttam Kumar Mahato	Technician	Maintenance	Padampur Site
78	302662	Mr. Shikar Hembrom	Technician	C&I	Padampur Site
79	302663	Mr. Ranjit Besra	Un-Skilled	CHP Lab	Padampur Site
80	302664	Mr. Hopna Baskey	Helpe	Operation	Padampur Site
81	302665	Mr. Sona Ram Baskey	Helper	Operation	Padampur Site
82	302666	Mr. Suku Majhi	Un-Skilled	AHP	Padampur Site
83	302667	Mr. Gopal Majhi	Helper	Operation	Padampur Site
84	302668	Mr. Ramdas Kisku	Helper	Operation	Padampur Site
85	302669	Mr. Som Murmu	Technician	Operation	Padampur Site
86	302670	Mr. Khirod Chandra Mahato	Technician	Operation	Padampur Site
87	302671	Mr. Sona Ram Hembrom	Technician	C&I	Padampur Site
88	302672	Mr. Ram Hembrom	Un-Skilled	CHP Lab	Padampur Site
89	302673	Mr. Rajesh Mahato	Technician	C&I	Padampur Site
90	302674	Mr. Nimay Mahato	Un-Skilled	DM Plant	Padampur Site
91	302676	Mr. Peeton Baskey	Un-Skilled	Maintenance	Padampur Site
92	302677	Mr. Raju Baskey	Un-Skilled	CHP Lab	Padampur Site
93	302678	Mr. Bablu Baskey	Un-Skilled	CHP Lab	Padampur Site
94	302679	Mr. Baijnath Mardi	Technician	Planning & Monitoring	Padampur Site
95	302680	Mr. Nitai Sardar	Technician	Planning & Monitoring	Padampur Site
96	302681	Mr. Baliram Murmu	Technician	Planning & Monitoring	Padampur Site
97	302682	Mr. Karu Tilka Majhi	Technician	C&I	Padampur Site
98	302683	Mr. Rajendra Hembrom	Un-Skilled	Maintenance	Padampur Site
99	302684	Mr. Jitu Hembrom	Un-Skilled	CHP Lab	Padampur Site
100	302687	Mr. Soken Tudu	Technician	C&I	Padampur Site
101	302688	Mr. Umesh Baskey	Un-Skilled	AHP	Padampur Site
102	302690	Mr. Anil Tudu	Un-Skilled	CHP Lab	Padampur Site
103	302694	Mr. Akash Tudu	Un-Skilled	Stores	Padampur Site
104	302695	Mr. Sushil Kumar Tudu	Un-Skilled	CHP Lab	Padampur Site
105	302696	Mr. Mahendra Tantubai	Technician	Electrical	Padampur Site
106	302697	Mr. Prakash Tudu	Un-Skilled	Stores	Padampur Site
107	302698	Mr. Karu Besra	Technician	C&I	Padampur Site
108	302699	Mr. Bangal Tudu	Un-Skilled	CHP Lab	Padampur Site

109	302700	Mr. Ravindra Nath Tudu	Technician	Electrical	Padampur Site
110	302701	Mr. Som Majhi	Un-Skilled	CHP Lab	Padampur Site
111	302702	Mr. Salku Tudu	Un-Skilled	AHP	Padampur Site
112	302707	Mr. Sukram Tudu	Un-Skilled	CHP Lab	Padampur Site
113	302708	Mr. Jeevan Manjhi	Un-Skilled	CHP Lab	Padampur Site
114	302709	Mr. Birsa Hansda	Technician	Operation	Padampur Site
115	302710	Mr. Surja Hansda	Un-Skilled	CHP Lab	Padampur Site
116	302711	Mr. Sanjay Mandal	Technician	C&I	Padampur Site
117	302712	Mr. Budhadev Mahato	Technician	C&I	Padampur Site
118	302713	Mr. Narayan Mahato	Technician	Operation	Padampur Site
119	302714	Mr. Jai Chand Mahato	Technician	Maintenance	Padampur Site
120	302715	Mr. Mithun Majhi	Technician	C&I	Padampur Site
121	302716	Mr. Sumit Kumar Mahato	Technician	WTP, Utilities	Padampur Site
122	302717	Mr. Mantu Mahato	Un-Skilled	CHP Lab	Padampur Site
123	302718	Mr. Santosh Sardar	Un-Skilled	CHP Lab	Padampur Site
124	302719	Mr. Ranjit Singh Sardar	Un-Skilled	CHP Lab	Padampur Site
125	302720	Mr. Lal Mohan Mahato	Un-Skilled	CHP Lab	Padampur Site
126	302721	Mr. Sohan Sardar	Un-Skilled	CHP Lab	Padampur Site
127	302722	Mr. Paga Sardar	Un-Skilled	Maintenance	Padampur Site
128	302773	Mr. Shibanath Singh Sardar	On the Job Trainee	Civil	Padampur Site
129	302774	Ms. Basanti Singh Sardar	On the Job Trainee	Electrical	Padampur Site
130	302775	Mr. Kali Pado Sardar	On the Job Trainee	Civil	Padampur Site
131	300009	Mr. June Baskey	Asst. Supervisor	Civi	Padampur Site
132	300010	Mr. Mangal Manzi	Asst. Supervisor	Civil	Padampur Site

## Adhunik Power & Natural Resources Ltd, Padampur

### WATER SAMPLE ANALYSIS RESULT OF GUARD POND

Sr. No	Parameters	LIMIT AS PER E(P) A FOR INLAND SURFACE WATER DISPOSAL	Unit	2017					September 2017	
				April	May	June	July	August		
1	Total Cr	2	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2	Copper	3	mg/L	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
3	Zinc	5	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4	Phosphates	5	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
5	pH	5.5 to 9	-	7.2	7.5	7.2	7.4	7.2	7.4	7.4
6	Suspended Solids	100	mg/L	26	29	29	26	29	29	31
7	Oil & Grease	10	mg/L	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
8	BOD 3 day 27 Deg. C	30	mg/L	1.3	1.6	1.3	1.6	1.6	1.6	1.3
9	COD	250	mg/L	13.8	12.8	13.8	14.6	16.4	16.4	13.4
10	TDS	-	-	372	412	463	512	533	533	542
11	Chloride	-	-	268	256	246	261	245	245	236
12	Sulphate	-	-	20.6	23.4	25.7	23.9	21.9	21.9	23.7
13	Iron	3	mg/L	0.81	0.76	0.72	0.61	0.74	0.74	0.71

\* Treated Water used for dust suppression & Horticulture work.

# Adhunik Power & Natural Resources Limited, Padampur

## NOISE LEVEL MONITORING REPORT

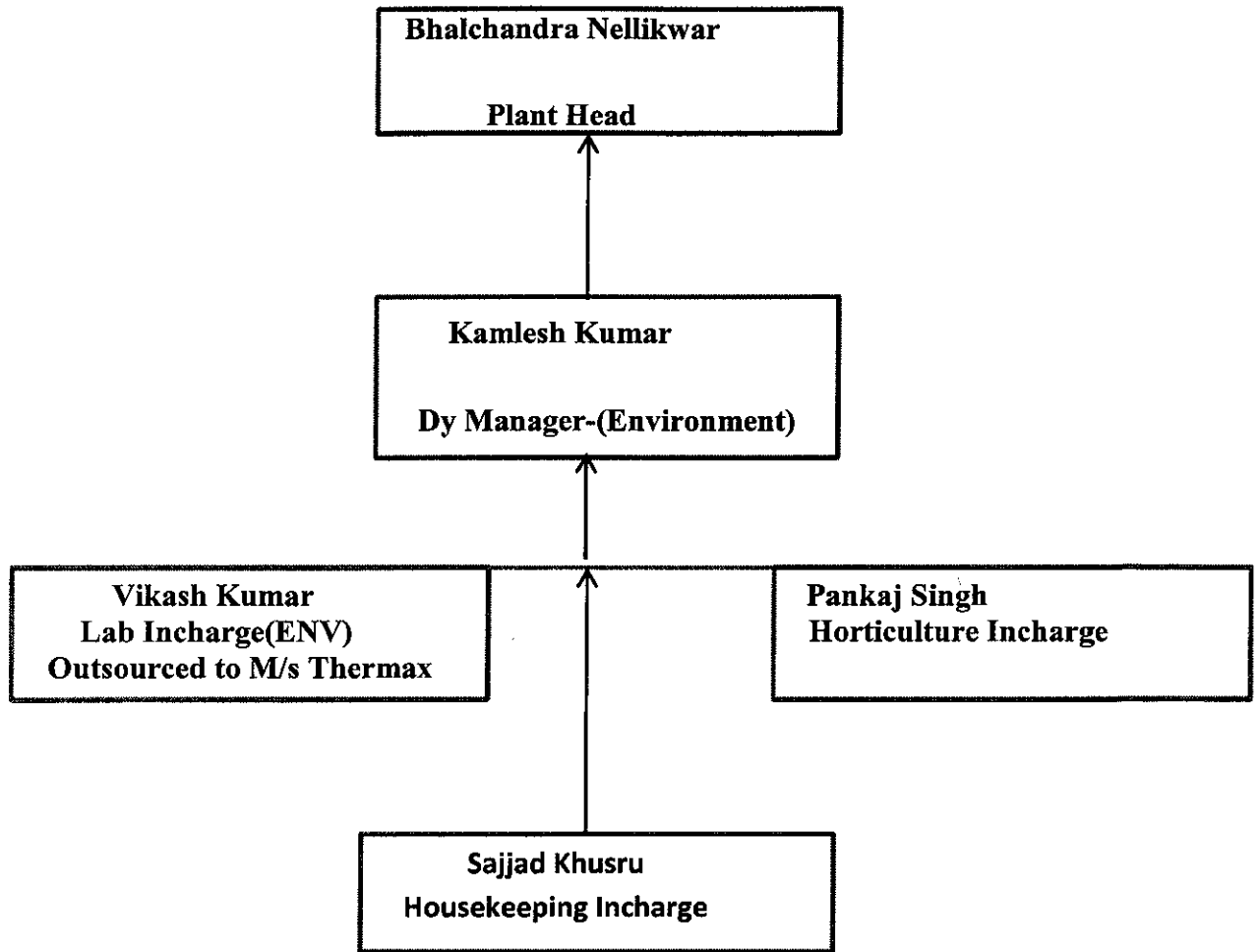
Sl.No.	LOCATION	NEAR MAIN GATE		ADMINISTRATIVE BUILDING		COAL YARD		NEAR COOLING	BOILER FEED	TURBINE FLOOR
		75 dBA	70 dBA	75 dBA	70 dBA	75 dBA	70 dBA			
	CONSENTED NORMS	Day	Night	Day	Night	Day	Night		85dBA	
1	Apr-17	44.6	35.6	57.3	39.4	74.1	52.3	77	81	82
2	May-17	53.4	36.7	54.9	40.1	71.3	55.6	78	82	84
3	Jun-17	52.4	34.9	55.6	41.3	73.5	54.8	79	81	83
4	Jul-17	55.6	39.4	53.4	40.7	74.5	55.7	78	80	82
5	Aug-17	56.4	40.3	55.1	41.3	73.8	52.4	76	81	83
6	Sep-17	55.9	42.1	54.3	40.3	71.6	53.4	75	82	84

# Adhunik Power & Natural Resources Limited, Padampur

## AMBIENT AIR QUALITY MONITORING REPORT

Sl.No.	LOCATION →	GET Hostel					Switch Yard					CHP area				
		PM 10	PM 2.5	SO2	NOX		PM 10	PM 2.5	SO2	NOX		PM 10	PM 2.5	SO2	NOX	
	PARAMETERS AS PER CONSENTED NORMS	100 µg/m3	60 µg/m3	80 µg/m3	80 µg/m3		100 µg/m3	60 µg/m3	80 µg/m3	80 µg/m3		100 µg/m3	60 µg/m3	80 µg/m3	80 µg/m3	
1	Apr-17	63.1	42.6	13.2	8.6		70.6	44.1	11.3	8.3		86.4	53.6	11.8	9.4	
2	May-17	62.3	45.6	12.8	9.4		71.6	43.8	10.9	7.6		88.6	51.7	12.4	8.2	
3	Jun-17	59.7	42.8	11.9	9.1		72.6	44.8	10.6	8.1		81.2	53.4	11.6	8.6	
4	Jul-17	55.6	41.3	10.9	8.6		73.6	42.3	10.1	8.9		84.6	51.3	11.8	9.1	
5	Aug-17	59.6	46.1	11.3	9.4		75.4	48.6	9.4	8.2		86.4	53.4	12.1	9.7	
6	Sep-17	61.8	42.6	11.1	8.9		72.9	45.4	10.3	8.4		76.4	55.6	11.3	9.2	

**ORGANISATION CHART  
ENVIRONMENT MANAGEMENT CELL**





# ADHUNIK POWER & NATURAL RESOURCES LTD.

(Formerly Adhunik Thermal Energy Limited)

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

Ref No APNRL/JSPCB/ES/2016-17/02

Date: 15th Sep 2017

The Member Secretary  
Jharkhand Pollution Control Board  
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 09<sup>th</sup> 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 2016-17.

This is for your kind information & record please.

Thanking You

Your's faithfully

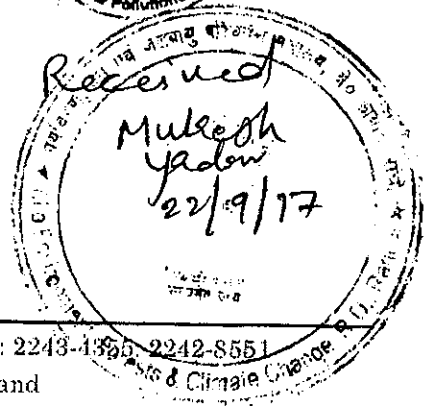
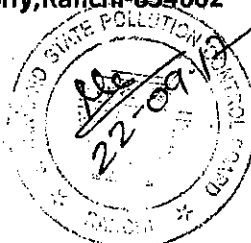
Bhalchandra Nellikwar  
(Plant Head)

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



Regd. Office : 14, Netaji Subhas Road, II-Floor, Kolkata - 700 001, Phone : 2243-1395, 2242-8551

Works: Padampur, Seraikela, Kharswan, Jharkhand

CIN U40101WB2005PLC102935



# 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

9/c

Ref: MOE&F, RNC/HYC/BN/30517/02

Dated: 30.05.2017

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 II) for the period – October 2016 to March 2017,-Reg.

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

Sir,

With reference to the above referred Environmental Clearance, we are pleased to submit herewith the half yearly compliance status report (Unit II) for the period of October 2016 to March 2017.

This is for your reference and record, please.

Thanking you,

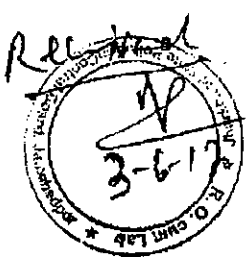
For Adhunik Power & Natural resources Limited

(Authorized Signatory)

Encl: As Above

Copy to:

- i) Central Pollution Control Board, Kolkatta
- ii) Member Secretary, Jharkhand State Pollution Control Board, Jharkhand
- iii) Regional Officer, JSPCB, Jamshedpur



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Beats: 10  
01/6/17

