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# ADHUNIK POWER AND NATURAL RESOURCES LIMITED

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

Ref: MOE&F, RNC/HYC/PKB/5616 /02

Dated: 05.06.2016

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 2015 to March 2016, -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 2015 to  
March 2016**.

This is for your reference and record, please.

Thanking you,

For Adhunik Power & Natural resources Limited

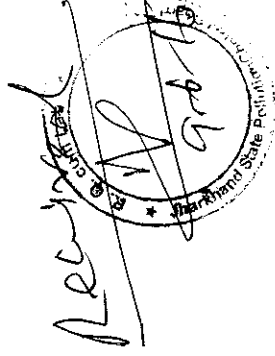
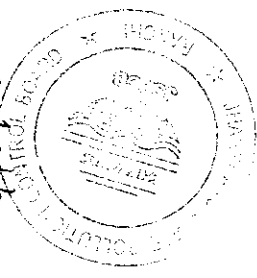
(Authorized Signatory)

Encl: As Above

Copy to:

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

For  
Boehr P  
9/6/16



Received  
Boehr P  
9/6/16

CORPORATE OFFICE : "CRESCENT TOWER", 3<sup>rd</sup> Floor, 229 A.J.C. Bose Road,  
Phone : +91-33-30915300 \*, Fax : +91-33-30915344

# REPORT

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



**OCTOBER'2015 – MARCH'2016**

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

<b>Adhunik Power &amp; Natural Resources Limited</b>	
<b>Vill: Padampur, Behind PGCIL Substation, Kandra Chouka Road, Saraikela-Kharsawan, Jharkhand</b>	
<b>Environmental Clearance Letter No: J13012/8/2009-IA .II (T) dtd 9th May 2011.</b>	
<b>Period Of Compliances: October,15-March,16</b>	
<b>S/No</b>	<b>EC Conditions</b>
<b>Status as on 31<sup>st</sup> March 2016</b>	
<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.
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.
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.
iv.	Vision document specifying prospective plan for the site shall be formulated and submitted to the Ministry within six months.
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.
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.
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.
	Noted
	As per notification dated 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.
	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>
	Vision document report has submitted at MoEF on 30 <sup>th</sup> Dec 2011. <b>Complied</b>
	Noted and marked for feasible implementation.
	For railway siding transportation clearance has received by from Ministry of Railway date 18.7.2008.
	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.	We ensure.
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 CGA 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.	Noted
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 engaging Thermax & for 3 <sup>rd</sup> party Monitoring APNRL engaging NABL accredited M/s Yugantar Bharti (for the month of Nov 2015). <b>Surface Water Analysis report and Ground water analysis report of upstream &amp; Downstream of Ash pond from October,15 to March ,16 Attached as Annexure I &amp; Annexure II 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 aug2011. <b>Complied</b>
xiii.	No ground water shall be extracted for use in operation of the power plant even in lean season.	We ensure.
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.	Noted.
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.	Noted
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) 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.	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 Oct,15 to March,16 Attached as Annexure II.</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,15 to March,16 Attached as Annexure I &amp; Annexure II 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.	Noted & will be adhere.
xx.	Provision for installation of FGD shall be provided for future use	FGD space is available on site for future use.
xxi.	The project proponent shall undertake measures and ensure that no fugitive fly ash emissions take place at any point of time.	Agreed & 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. <b>Stack Monitoring report and Ambient Air Monitoring report from Oct ,15 to March,16 Attached as Annexure III &amp; Annexure IV respectively</b>
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 Oct ,15 to March,16 Attached as Annexure III .</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.
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 100% utilization of fly ash from 4th year onwards.

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 in the effluents emanating from the existing ash pond. No ash shall be disposed off in low lying area.	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 Annexure V &amp; Annexure VI respectively.</b>
xxvii.	Ash pond shall be lined with HDP/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.	The ash pond has designed to encompasses leachate collection & monitoring system, impervious lining etc for protection of local ground water resource as per the requirement..
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	Noted.
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.
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 %.	Green belt development has been initiated onsite through setting up of a nursery near the APNRL building & GET hostel. Presently 46806 nos. of saplings have planted and green belt has been developed in approx. 46.75 acres of land. Total Survival rate is 88 % as on 21/12/2015. Details of Plantation attached as <b>Annexure VII</b> with photographs
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.	Noted.

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 coordination with the district administration.	APNRL has adopted villages a. Baraharipharpur b. Padampur c. Srirampur  CSR is also providing the facilities in following villages  d. Pindraberā e. Chotaharipharpur f. Ramjivapur g. Bikanipur etc.  Details of CSR activity enclosed as <b>Annexure VIII.</b> Details of CSR activity enclosed as <b>Annexure VIII.</b>
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> for the period of <b>Oct 2015 to March 2016.</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.	Survey has been completed; report has been prepared. CSR activities started for upliftment of sustainable livelihood of tribal families in surrounding villages
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.	Details of the activities report has submitted on MoEF on 9th Nov 2011
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.	All CSR activities are monitored on weekly and monthly basis.
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	

<b>B. General Conditions:</b>		
i.	<p>The treated effluents conforming to the prescribed standards only shall be recirculated and reused within the plant. Arrangements shall be made that effluents and storm water do not do not get mixed.</p>	<p>The project is designed with zero discharge provisions (except during monsoon) and drains as suggested is being maintained. <b>Treated effluent analysis report of Guard pond from Oct, 15-March,16 attached as Annexure IX.</b></p> <p>Adequate and separate drainage structures has designed to channel storm water generated onsite into rain water harvesting structures constructed in accordance with the approved rain water harvesting plan.</p>
ii.	<p>A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation</p>	<p>03 No's 60 KI capacity STP has commissioned at site.</p>
iii.	<p>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.</p>	<p>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.</p>
iv.	<p>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.</p>	<p>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</p> <p>The analysis report for LDO to be supplied by IOCL has obtained to check conformance with sulfur limits prescribed regularly.</p> <p>Emergency Response Plan (ERP) has prepared as part of the project ESMS to cater to potential emergencies/risks identified.</p>
v.	<p>First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.</p>	<p>A first aid center comprising of competent medical staff (6 no's) and equipped with necessary medical facilities is made available onsite to provide emergency medical aid to both contract workers and company staff. Further APNRL has also tied up with nearby private hospitals viz. SAI nursing home, Tata Main Hospital etc. to provide critical health care services to contract workers.</p>
vi.	<p>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</p>	<p>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 Oct,15 to March, 16 attached As Annexure X.</b></p>

vii.	<p>Regular monitoring of ambient air ground level concentration of SO<sub>2</sub>, NO<sub>x</sub>, PM<sub>2.5</sub> &amp; 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 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.</p>	<p>Monthly monitoring of Air quality is being undertaken by APNRL engaging Tilermax &amp; through NABL Accredited M/s Yuganthai Eharti in the month of Nov 2016. Review of air quality monitoring results revealed compliance to NAAQS. <b>Ambient Air monitoring reports from Oct,15 to March, 16 is attached as Annexure IV.</b></p>
viii.	<p>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.</p>	<p>Plant is in operational condition and local labors are coming from nearby villages.</p>
ix.	<p>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>.</p>	<p><b>Complied</b></p>
x.	<p>A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / 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.</p>	<p><b>Complied</b></p>
xi.	<p>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.</p>	<p>A Environmental Management Cell consist high qualified environmental professionals are being operational onsite to ensure effective implementation of specific EMPs.</p>

xii.	<p>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> &amp; PM<sub>10</sub>), 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.</p>	<p>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.</p>
xiii.	<p>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.</p>	<p>The last environmental statement for financial year (2012-13) in Form V has submitted to JSPCB vide letter No : APNRL/JSPCB/ES/2014-15/02 dated 15<sup>th</sup> Sep 2015. <b>Acknowledgement copy of same attached as Annexure XI.</b></p>
xiv.	<p>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</p>	<p>Last six monthly reports for the project along with environmental monitoring data submitted to MoEF RO at Ranchi office vide letter No MOE&amp;F,RNC/HYC/KK/10122015/02 ,dated 10<sup>TH</sup> Dec 2015. <b>Acknowledgement copy of same attached as Annexure XII.</b></p>
xv.	<p>Regional Office of the Ministry of Environment &amp; 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 &amp; ambient air) shall be displayed at the main gate of the power plant.</p>	<p>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.</p>

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 2015-16 attached as <b>Annexure XIII</b> .
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

# Adhunik Power & Natural Resources Limited, Padam

## SURFACE WATER SAMPLE ANALYSIS RESULTS FOR BADAHARIHARPUR PO

Sr. No	Parameters	Unit	Oct 2015	Nov 2015	Dec 2015	Jan 2016
1	Colour	Hazen	<5	<5	<5	<5
2	Odour		Odourless	Odourless	Odourless	Odourless
3	pH	mg/l	7.1	7.6	7.6	7.2
4	Temperature	°C	21.6	20.8	21.4	20.6
5	Oil & Grease	mg/l	ND	ND	ND	ND
6	Electrical Conductivity		395	386	366	386
7	Dissolved Oxygen	mg/l	6.2	6.4	5.4	5.6
8	BOD at 270C (3days)	mg/l	3.4	3.1	3.6	3.1
9	Total Coliforms	mg/l	Nil	Nil	Nil	Nil
10	Total Dissolve Solids	mg/l	162	156	161	156
11	Total Hardness as CaCO <sub>3</sub>	mg/l	141.6	136.5	139.4	142.7
12	Chloride as Cl	mg/l	126.3	119.4	123.4	122.8
13	Sulphate as SO <sub>4</sub>	mg/l	60.4	56.4	52.4	51.8
14	Nitrate as NO <sub>3</sub>	mg/l	5.64	4.63	5.12	5.61
15	Free CO <sub>2</sub>	mg/l	1.3	1.3	1.2	1.3
16	Free NH <sub>3</sub>	mg/l	0.0126	0.0126	0.0124	0.0132
17	Fluoride as F	mg/l	0.0409	0.0361	0.0356	0.0362
18	Calcium Hardness	mg/l	48.9	42.6	41.5	42.9
19	Magnesium as Mg	mg/l	16.5	16.3	15.8	12.9
20	Copper as Cu	mg/l	<0.01	<0.01	<0.01	<0.01
21	Iron (fe)	mg/l	0.169	0.155	0.145	0.152
22	Manganese (Mn)	mg/l	0.0115	0.0112	0.0105	0.0112
23	Zinc as Zn	mg/l	<0.01	<0.01	<0.01	<0.01
24	Boron (B)	mg/l	<0.01	<0.01	<0.01	<0.01
25	Arsenic (As)	mg/l	<0.01	<0.01	<0.01	<0.01
26	Mercury (Hg)	mg/l	<0.01	<0.01	<0.01	<0.01
27	Lead (Pb)	mg/l	<0.01	<0.01	<0.01	<0.01
28	Cadmium (Cd)	mg/l	ND	ND	ND	ND
	Hexavalent					
29	Chromium(Cr+6)	mg/l	<0.01	<0.01	<0.01	<0.01
30	Selenium(Se)	mg/l	<0.01	<0.01	<0.01	<0.01
31	Cyanide (CN)	mg/l	<0.002	<0.002	<0.002	<0.002
32	Phenol (C <sub>6</sub> H <sub>5</sub> OH)	mg/l	<0.002	<0.002	<0.002	<0.002
33	Anionic detergents (MBAS)	mg/l	<0.005	<0.005	<0.005	<0.005
34	Sodium(Na)	mg/l	81	84	81	86

*fjm*

**AAMIK POWER & NATURAL RESOURCES LTD, Padampur**

March 2016

SI No	Parameters	Unit	Oct			Nov			Dec			Jan			Feb			March		
			Village Padampur	Village Pindrabera	Village Padampur	Village Pindrabera	Village Padampur	Village Pindrabera	Village Padampur	Village Pindrabera	Village Padampur	Village Pindrabera	Village Padampur	Village Pindrabera	Village Padampur	Village Pindrabera	Village Padampur	Village Pindrabera		
1	Color	Hazen	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5			
2	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable			
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable			
4	Turbidity	NTU	3.5	4.6	3.6	4.2	3.4	4.1	3.6	4.2	3.5	3.9	3.2	3.4	3.2	3.2	3.4			
5	pH	-	6.9	7	6.4	7.6	7.1	7.5	6.9	7.1	7.3	7.5	7.1	7.5	7.1	7.5				
6	Temperature	°C	24.1	24.3	23.8	24.1	25.4	21.6	23.4	22.9	24.6	22.1	23.6	22.8	23.6	22.8				
7	Total Hardness (CaCO <sub>3</sub> )	Mg/l	220.5	218.8	218.4	215.6	211.6	216.9	216.4	231.8	213.6	216.4	215.6	216.4	215.6	216.4				
8	Iron (Fe)	Mg/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
9	Chlorides (Cl)	Mg/l	41.6	34.6	42.7	33.6	41.5	32.8	45.2	34.5	42.1	33.9	42.8	35.1	42.8	35.1				
10	Residual Free Chlorine	Mg/l	0.0039	0.0048	0.0036	0.0045	0.0033	0.0041	0.0031	0.0042	0.0031	0.0042	0.0034	0.0041	0.0034	0.0041				
11	TDS	Mg/l	264.8	213.7	269.4	213.7	256.3	276.4	233.4	243.6	219.7	241.9	220.7	220.7	241.9	220.7				
12	Elec conductivity	µmhos	407.38	328.77	401.56	334.01	395.70	335.10	405.30	342.80	389.70	345.60	341.96	341.96	385.46	341.96				
13	Calcium (Ca)	Mg/l	52.4	54.6	49.8	52.9	47.8	53.4	44.8	51.8	45.6	32.1	42.6	32.9	42.6	32.9				
14	Magnesium (Mg)	Mg/l	17.21	13.45	16.45	14.78	16.44	15.01	15.6	14.9	15.62	14.98	16.12	14.88	16.12	14.88				
15	Copper (Cu)	Mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				
16	Manganese (Mn)	Mg/l	0.0067	0.0051	0.0064	0.0046	0.0061	0.0042	0.0056	0.0041	0.0061	0.0043	0.0062	0.0045	0.0062	0.0045				
17	Sulfate (SO <sub>4</sub> )	Mg/l	41.05	36.71	40.56	38.95	41.23	36.42	40.03	37.8	41.61	37.28	40.61	35.78	40.61	35.78				
18	Total Nitrate (NO <sub>3</sub> )	Mg/l	15.64	12.81	16.51	15.42	15.94	15.41	16.51	12.86	15.66	14.27	16.44	12.86	16.44	12.86				
19	Fluoride (F)	Mg/l	0.0056	0.005	0.0042	0.0061	0.0039	0.0053	0.0036	0.0051	0.0037	0.0049	0.0035	0.0046	0.0035	0.0046				
20	Cadmium (Cd)	Mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				
21	Cyanide (CN)	Mg/l	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015				
22	Lead (Pb)	Mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				
23	Zinc (Zn)	Mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				
24	Total Chromium (Cr)	Mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				
25	Arsenic (As)	Mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
26	Mercury (Hg)	Mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
27	Total Alkalinity (CaCO <sub>3</sub> )	Mg/l	177	142	162	143	163	139	165	142	169	145	167	148	167	148				
28	Acidity	Mg/l	15	15	12	16	12	15	12	14	13	14	12	14	13	14				
29	Aluminum (Al)	Mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				
30	Boron (B)	Mg/l	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02				
31	Sodium (Na)	Mg/l	23.4	19.7	22.6	20.1	21.8	20.7	20.8	22.4	20.6	21.9	19.8	18.4	20.6	19.8				
32	Potassium (K)	Mg/l	2.7	1.5	2.6	1.8	2.4	1.6	2.6	1.8	2.2	1.8	2.1	1.9	2.2	1.9				
33	Total Bacterial Count	Nos/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent				
34	E Coli	Nos/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent				
35	S enteritidis	Nos/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent				

bpc

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**Adhunik Power & Natural Resources Limited, Padampur  
 STACK EMISSION MONITORING REPORT**

SI.No.	PARAMETERS				AS PER CONSENTED NORMS	
	PM	SO2	NOX	Hg	50 mg/Nm3	600 mg/Nm3
1	35.4	301.6	146.8	<0.01	300 mg/Nm3	0.03 mg/Nm3
2	31.9	296.4	151.2	<0.01		
3	35.4	286.4	166.7	<0.01		
4	37.1	274.3	138.6	<0.01		
5	29.4	244.9	170.8	<0.01		
6	29.7	266.8	125.6	<0.01		

UNIT-2

**Adhunik Power & Natural Resources Limited, Padampur  
 AMBIENT AIR QUALITY MONITORING REPORT (Core Zone)**

Sl.No.	LOCATION →			Switch Yard						CHP area			
	PARAMETERS	PM 10	PM 2.5	SO2	NOX	PM 10	PM 2.5	SO2	NOX	PM 10	PM 2.5	SO2	NOX
AS PER CONSENTED NORMS	100 µg/m <sup>3</sup>	60 µg/m <sup>3</sup>	80 µg/m <sup>3</sup>	80 µg/m <sup>3</sup>	80 µg/m <sup>3</sup>	80 µg/m <sup>3</sup>	60 µg/m <sup>3</sup>	80 µg/m <sup>3</sup>	80 µg/m <sup>3</sup>	100 µg/m <sup>3</sup>	60 µg/m <sup>3</sup>	80 µg/m <sup>3</sup>	80 µg/m <sup>3</sup>
1	Oct-15	49.6	31.6	12.8	6.9	59.4	42.8	15.6	12.7	72.6	45.9	16.4	11.3
2	Nov-15	51.6	35.1	11.6	7.1	62.4	45.7	12.8	9.4	75.4	51.3	15.6	12.4
3	Dec-15	53.6	36.4	10.8	8.4	66.4	41.8	11.6	6.1	71.5	54.9	14.6	11.3
4	Jan-16	55.4	32.8	11.4	8.4	68.7	42.8	10.6	6.8	72.5	55.4	12.9	10.7
5	Feb-16	55.3	35.1	11.2	9.1	67.1	42.8	10.9	7.5	75.2	53.1	12.6	9.8
6	Mar-16	52.4	31.9	10.6	9.7	70.5	41.6	11.8	6.5	79.4	55.4	12.1	9.4

*MP*



# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Annexure II

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

## Test Report

Issued to :- <b>M/s ADHUNIK POWER &amp; NATURAL RESOURCES LIMITED (Unit II)</b> Vill: Padampur, Behind P.G.C.I.L Substation, Jamshedpur-832105, Jharkhand	Sample Code: - 151118-BA-E01 Report ID :- YBAEEL/JSR/15-11-18/BA/01 Date of Issue: - 30 <sup>th</sup> Nov. 2015 Reference :- YBAEEL/WAL/C/Nov-15
Sample Name/Description: - Bottom Ash	Details of Sampling Date of sampling :- 18-11-2015
Sample Quantity : - 1 kg	Sample Received Date: -19/11/2015
Sample pkg. Condition :- Sealed in plastic bottle	Sample collected by: -Owm/ Mr. Mukesh Singh & Team Sampling Location: -Bottom Ash Hopper (Unit II)

### Test Result

Sl. No.	Tested Parameter	Unit	Results
1.	Arsenic	ppm	<0.01
2.	Mercury	ppm	<0.01
3.	Chromium	ppm	0.03
4.	Lead	ppm	0.06
5.	Antimony	ppm	<0.01
6.	Beryllium	ppm	<0.01
7.	Cadmium	ppm	0.02
8.	Copper	ppm	0.03
9.	Nickel	ppm	0.05
10.	Selenium	ppm	0.01
11.	Silver	ppm	<0.01
12.	Tin	ppm	<0.01
13.	Zinc	ppm	0.05
14.	Unborn carbon	%	1.25

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

Remarks:-According to tested parameter, the results found as above.

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 two week of testing.
- ◆ The liability of the laboratory is limited to the invoiced amount.
- ◆ All disputes are subjected to the Ranchi Jurisdiction.

Sanjeev Singh

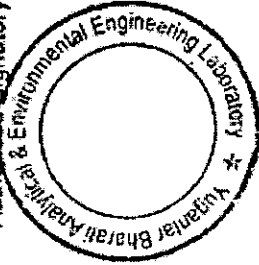
Tested by  
(Sanjeev Singh)  
Authorised Signatory

Yugantar  
30/11/15  
Verified by  
(Bandana Suren)  
Quality Manager

Quality Manager  
Yugantar Bharati Analytical &  
Environmental Engineering Laboratory

Issued by  
(Umesh Das)  
Technical Manager

Technical Manager  
Yugantar Bharati Analytical &  
Environmental Engineering Laboratory



An ISO 9001: 2008 Certified Laboratory



# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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

## Test Report

<b>Issued to :-</b> <b>M/s ADHUNIK POWER &amp; NATURAL RESOURCES LIMITED (Unit II)</b> <b>Vill: Padampur, Behind P.G.C.I.L</b> <b>Substation, Jamshedpur-832105, Jharkhand</b> <b>Sample Particulars</b>	<b>Sample Code: - 151118-JWJ-E01</b> <b>Report ID :- YBAEELJSR/15-11-18/NW/01</b> <b>Date of Issue: - 30<sup>th</sup> Nov. 2015</b> <b>Reference :- YBAEELWA/JC/Nov-15</b>
<b>Sample Name/Description: - Waste Water</b> <b>Sample Quantity :- One litre</b> <b>Sample pkg. Condition :- Sealed in plastic bottle</b>	<b>Date of sampling :- 18-11-2015</b> <b>Sample Received Date: -19/11/2015</b> <b>Sampling Protocol: - YBAEELSP/01/00</b> <b>Sample collected by: -Omn/ Mr.Mukesh Singh &amp; Team</b> <b>Sampling Location: -Ash pond outlet</b>

### Test Result

Sl. No.	Tested Parameter	Unit	Results	Method (APHA 22 <sup>ND</sup> Edition 2012)	Permissible Limit
1.	pH	--	6.7	4500 H+ B	N/A
2.	Temperature	°c	28	2550 B	N/A
3.	Total dissolve solid	mg/l	32	2540 C	N/A
4.	Oil & Grease	mg/l	ND	5520 B	N/A
5.	Mercury	mg/l	<0.01	3112 B	N/A
6.	Arsenic	mg/l	<0.01	3114 B	N/A
7.	Total Chromium	mg/l	<0.01	3111 B	N/A
8.	Lead	mg/l	<0.01	3111 B	N/A

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

Remarks:-According to tested parameter, the results found within the prescribe limit of waste water specification.

Specific contractual notes:-

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- ◆ The liability of the laboratory is limited to the invoiced amount.
- ◆ All disputes are subjected to the Ranchi Jurisdiction.

*Sanjeev Singh*

Tested by  
(Sanjeev Singh)  
Authorised Signatory

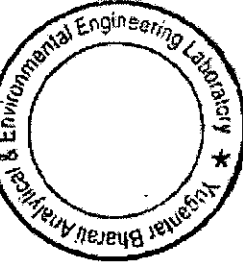
*Bandana Suren*

Verified by  
(Bandana Suren)  
Quality Manager

*Umesh Das*

Issued by  
(Umesh Das)  
Technical Manager  
Yugantar Bharati Analytical &  
Environmental Engineering Laboratory

Quality Manager  
Yugantar Bharati Analytical &  
Environmental Engineering Laboratory



An ISO 9001: 2008 Certified Laboratory

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# ADHUNIK POWER & NATURAL RESOURCES LTD

## STATUS OF GREEN BELT DEVELOPMENT AS ON 21.12.2015

Sl No	Year	No of Sampling Planted	Name of Saplings	No of plant as on 21.12.2015	Survival Rate (%)
1	2011-12	4500	Fruit plants & local species	4104	91.20
2	2012-13	4843	Fruit plants & local species	4246	87.67
3	2013-14	11681	Fruit plants & local species	10552	90.33
4	2014-15	17024	Fruit plants & local species	15003	88.13
5	2015-16	8499	Fruit plants & local species	7229	85.06
	<b>Total</b>	<b>46547</b>		<b>41134</b>	<b>88.48</b>

b/n

8/2

## ADHUNIK POWER & NATURAL RESOURCES LTD PLANTATION REPORT (YEAR 2011 -2016)

N.	Month	Working area where plantation &/ or landscaping activity took place	Number of sapling planted	Details of plantation			
				Scientific name/ common name	Number of planted species	Purpose / Beautification/ Plantation	Area covered in acre
1	Jul-11	B/ Hostel West Side Boundary Wall	4500	Shisham,Siras,Acasia Mejnjum	3000	Green Belt	4.5
		Main Gate Near Security office		Shisham& Ashok Pendula	250	Green Belt	
	Aug-11	Back Side Chemical Building		Shisham,Siras,Acasia Auriculiformis	1250	Green Belt	
2	Jun-12	B/ Hostel South side wall	4843	Shisham,Siras,Acasia, mahua, Teak	1412	Green Belt	4.84
	Jul-12	DM Plant Back side		Shisam,Siras,Neem,casia,Pelatafarm	628	Green Belt	
	Jul-12	Reservoir East Side		Shisam,Siras,Alastonia, Jamun	194	Green Belt	
	Jul-12	Mahadeo puram		Cassia ,Teak,Acasia menjjum,Alastinia	575	Green Belt	
	Aug-12	Godam Side Near Dgp Colony		Shisam,Siras,Neem , Acasia Menjjum	624	Green Belt	
	Aug-12	New B/ Hostel Narth side		Shisam,Siras,Acasia Auriculiformis	362	Green Belt	
	Aug-12	DM Plant More Area		Shisam,Siras,Acasia Menjjum,Alastonia	489	Green Belt	
	Aug-12	Switch Yards Area		Shisam,Siras,Neem,casia,Pelatafarm	559	Green Belt	
3	Jun-13	Oppsit side ADM Build	11681	Ashok, Thuja, Casurina	144	Green Belt	11.68
	Jul-13	New B/ Hostel North Side		Mango , Amrood,Litchi, Beal , Kaju	168	Green Belt	
		Old B/Hostel South side		Shisham. Acasia Menjjum,Rain Tree,Acasia	540	Green Belt	
		Road Near B/ Hostel		Karanj	56	Green Belt	
		Power Houseto switch yard control room Road		Chattim , Ashok	251	Green Belt	
		Switch yards Road		Chhatim	231	Green Belt	
		Rail Engin side Slop		Ashok	26	Green Belt	
3	Aug-13	Resevoire Area		Shisham. Siras. Acasia Menjjum,Rain Tree,	1810	Green Belt	
		switch yard control room to DM Plant Road		Siras. Chhatim , Rain Tree, Acasia,	425	Green Belt	
		Near switch yard control room		Shisham. Chhatim, Acasia,Rain Tree,Acasia	1180	Green Belt	
		DM Plant Area		Shisham. Siras. Chhatim, Acassia Rain Tree	460	Green Belt	
		Infront of Chemical Building		Siras. Chhatim, Acassia , Rain Tree,Acasia	340	Green Belt	
		Mahadeo Puram indise wall		Shisham. Siras. Cassia , , Rain Tree,Acasia	2880	Green Belt	
		GDP Colony Area		Shisham. Siras. Mahua, Acassia Rain Tree	1160	Green Belt	
		CHP Ramp		Shisham. Rain Tree,Acasia	300	Green Belt	
		Chitrakoot Apartment		Foxtel Palm	25	Green Belt	
		Power House Area		Thevatia ( Kaner )	100	Green Belt	
		Gapfilling. ( all area )		Siras, Acassia Menjjum,Rain Tree,Acasia	350	Green Belt	
		Back side of commercial building Area		Bottel Palm , Foxtell Palm	75	Green Belt	
4	Sep-13	Back side commercial building		Siras.	20	Green Belt	
		Labour Colony Area		Shisham. Chhatim, Rain Tree,Acasia	1140	Green Belt	
5	May-14	New ADM Building, GDCL Building, Clarifier area,Water guarad pond,	4269	Siras. Chhatim , Rain Tree, Acasia, Accala, Foxtel palm	4269	Green Belt	4.26
6	Jun-14	Back side of ADM building	418	Ashok, Thuja, Casurina	418		0.41
7	Aug-14	Alognside natural nallah, Gate no 02,Switch yard area,	9145	Siras. Chhatim , Rain Tree, Acasia, Accala, Foxtel	9145	Green Belt	9.14
8	Oct-14	GDCL Store room area, Chtrakoot	2894	Chhatim , Rain Tree, Acasia, Foxtel palm	2894	Green Belt	2.89
9	Jan-15	Apartment (Back side)	298	Shisham, Kachnar	298	Green Belt	0.298
0	Apr-15	Outside security office	1269	Chattim	1269	Green Belt	1.26
1	Jun-15	Alongside of Cooling Tower	2358	Siras. Chhatim , Rain Tree, Acasia, Accala, Foxtel	2358	Green Belt	2.35
1	Jun-15	Maingate to ADM building,DM plant Area,CHIP					
2	Sep-15	Chitrakoot Appartment(Right & Front side), Jackwell area	1694	Kaner, Neem, Gulmohar	1694	Green Belt	1.69
		Main Gate to new worker punching machine area, Alongside Ash handling pipe					
3	Nov-15	line,Backside of security barrack	3178	Gulmohar, Pelatoforum, Neem, Shisham	3178	Green Belt	3.17
4	Apr-16	New Ash pond dyke	259	Neem	259	Green Belt	0.259
		<b>Total</b>	<b>46806</b>		<b>46806</b>		<b>46.75</b>

**Report on Corporate Social Responsibility Initiatives**

**Month: October 2015**

Adhunik Power & Natural Resource Limited (APNRL), Padampur, in partnership with Rapcha Gram Panchayat, Dugdha Gram Panchayat, Gamharlia Panchayat Samiti / Block and Nav Nirman Sanstha, Jamshedpur had taken up community development projects as a part of corporate social responsibility and executed the development projects in partnership approach in the month of **October 2015**. The focus areas of development projects were **Health, Education, Women Empowerment, Sports, Culture and Infrastructure Development**. The community development initiatives were implemented in the villages of Srirampur, Pindrabera, Barahariharpur, Chotahariharpur, Padampur, Bikanipur, Ghutbera, Ramjivanpur, Barkatand, Dhatkidih, Rapcha, Ramchandrapur, Shankerpur, Upperbera, Kandra, Gamharlia of Dugdha, Kalikapur, Kandra, Chamaru & Rapcha Gram-Panchayats during the above said month. A total of **6422 Villagers (with the repetitive chance for the same person to benefit from the various activities as mentioned below) from 18 villages of 7 Gram Panchayats** reaped developmental benefits through the following developmental initiatives:

Focus Area(s)	ACTIVITIES	No. of Villagers Benefited			No. of Camp(s)	No. of Centre(s)	No. of Unit(s)	No. Villages	No. of Gram Panchayts(s)	Water (Liter In Lakh)
		Male	Female	Total						
Health & Sanitation	1. Rural Medical Camp	69	87	156	19	-	-	3	2	-
	2. Safe drinking water under project Amrit Dhara	House hold- 674		4044	-	2	1	15	5	1.4
	3. Supply of clean & safe water at govt. school, Badahariharpur	45	40	85	1	-	-	1	1	.01
	4. Drinking Water Supply through tankers	House hold- 200		1000			3	1	1	.15
EDUCATION	1. Tutorial Classes for students	19	37	56	-	2	-	2	2	-
	2. Dance Program	20	30	50		2		2	2	
	3. Project CYBER VILLAGE	39	12	51	-	3	-	17	3	-
	4. Certificate distribution	23	32	55		2		10	2	
WOMEN EMPOWERMENT & Livelihood	1. SHG group meeting	-	65	65	-	1	-	5	3	-
	2. Spice production	-	14	14	-	-	-	1	1	-
	3. Vermin Compost	-	11	11	-	-	-	1	1	-
	4. Tailoring Center	-	15	15		1		3	1	
SPORTS & Culture	1. Physical Fitness Class at School Level	60	70	130	-	4	-	4	2	-
	2. Kho - Kho Training Center	14	15	29	-	1	-	4	2	-
Infrastructure Development	1. construction of Bathroom at Badahariharpur	House hold- 41		205	-	-	-	1	1	-
	2. Construction of Boundary wall of school, Pindrabera	Students		190	-	1	1	3	1	
	3. Construction of Boundary wall of Graveyard, Badahariharpur	House hold- 40		250		1	1	3	1	-
Others Initiatives	Village meeting, Srirampur	-	16	16		1		1	1	
<b>Total</b>				<b>6422</b>				<b>18</b>	<b>7</b>	

(i) **18 villages:** Srirampur, Pindrabera, Barahariharpur, Chotahariharpur, Padampur, Bikanipur, Ghutbera, Ramjivanpur, Barkatand, Dhatkidih, Rapcha, Ramchandrapur, Shankerpur, Upperbera, Gamharlia, Kandra, Virbas, Chota Gamharlia, Virbhavajpur (ii) **7 Gram Panchayats:** 1. Rapcha, 2. Dugdha, 3. Kandra 4. Kalikapu 5. Chamaur 6. Chota Gamharlia, 7. Birbas

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## Project Highlights for the month of October 2015

1. **Rural Medical Camp:** A total of 19 nos. of Rural Medical Camps were conducted in 03 villages under 02 Gram Panchayat. The villages covered are (i) Padampur and (ii) Pindrabera of Rapcha Panchayat, (ii) Badahariharpur of Dugdha Panchayat, Saraikela- Kharsawan district. A total of 156 village patients including 69 males and 87 females underwent health check-up and received medical treatment accordingly.
2. **Safe drinking water under project Amrit Dhara:** Project Amrit Dhara is especially designed under PPP mode for serving those poorest of poor people of Gamharia Block, Saraikela who are our fellow citizens. Total members are 674 and consumed 139979 liters of safe drinking water in the month of October 2015.
3. **Open a New Tailoring center:** On 12th October 2015 we have opened sewing & tailoring center at Community hall Rapcha in order to develop our society which will further help them in pursuing their career. The main objective behind to start this center is women sustainability. The duration of the course is six month.
4. **Dance Program:** CSR Department, Adhunik Power Natural Resources Limited, Padampur had organized dance program on the occasion of Founder's Day of Adhunik group on 24.10.2015 at Primary Academic center (PAC), Padampur & Badahariharpur. 50 students were participated including Social Tutor and village volunteers in this function.
5. **Certificate Distribution at Cyber village students:** Certificate Distribution Function organized at Badahariharpur and Dugdha Cyber village center on 12.10.2015 & 14.10.2015 for the students of 3rd Batch of Cyber Village Project at Badahariharpur Centre ) and the students of 2st Batch of Dugdha (January'2014 to June' 2015) who have successfully completed the 6 months course respectively . Mr. Rajesh Ranjan Group Head CSR, Adhunik Group and Sri Chitranjan Singh Sardar – Mukhiya, Dugdha graced the occasion as Chief Guest. The other persons present on this occasion were Mr. Sanjeet Kr. Sinha, Sr. Manager, CSR, Mr. Ghanshyam Assistant Manager-HR, APNRL, Mr. Ajeet Kumar, Sr. Executive – CSR, Mrs. Sunita Besra-, Assistant-CSR, Mrs Ambika Mahato & Lakhi Kant Mahato -Instructor, Cyber Village - Nav Nirmam Sanstha & Mr. Sona Ram Hembram- CSR and all the students of Cyber Village.

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**Report on Corporate Social Responsibility Initiatives**

**Month: November 2015**

Adhunik Power & Natural Resource Limited (APNRL), Padampur, in partnership with Rapcha Gram Panchayat, Dugdha Gram Panchayat, Gamharlia Panchayat Samiti / Block and Nav Nirman Sanstha, Jamshedpur had taken up community development projects as a part of corporate social responsibility and executed the development projects in partnership approach in the month of **November 2015**. The focus areas of development projects were **Health, Education, Women Empowerment, Sports, Culture and Infrastructure Development**. The community development initiatives were implemented in the villages of Srirampur, Pindrabera, Barahariharpur, Chotahariharpur, Padampur, Bikanipur, Ghutbera, Ramjivanpur, Barkatand, Dhatkidih, Rapcha, Ramchandrapur, Shankerpur, Upperbera, Kandra, Gamharlia of Dugdha, Kalikapur, Kandra, Chamaru & Rapcha Gram-Panchayats during the above said month. A total of **5849 Villagers (with the repetitive chance for the same person to benefit from the various activities as mentioned below)** from **18 villages of 7 Gram Panchayats** reaped developmental benefits through the following developmental initiatives:

Focus Area(s)	ACTIVITIES	No. of Villagers Benefited			No. of Camp(s)	No. of Centre(s)	No. of Unit(s)	No. Villages	No. of Gram Panchayats(s)	Water (Liter in Lakh)
		Male	Female	Total						
Health & Sanitation	1. Rural Medical Camp	62	80	142	18	-	-	3	2	-
	2. Safe drinking water under project Amrit Dhara	House hold-674		4044	-	2	1	15	5	1.2
	3. Supply of clean & safe water at govt. school, Badahariharpur	45	40	85	1	-	-	1	1	.01
	4. Drinking Water Supply through tankers	House hold-100		500	1	0	3	1	1	.10
EDUCATION	1. Tutorial Classes for students	19	37	56	-	2	-	2	2	-
	2. Dance Program	20	30	50	-	2	-	2	2	-
	3. Project CYBER VILLAGE	39	12	51	-	3	-	17	3	-
	1. SHG group meeting	-	65	65	-	1	-	5	3	-
WOMEN EMPOWERMENT & Livelihood	2. Spice production	-	14	14	-	-	-	1	1	-
	3. Vermim Compost	-	11	11	-	-	-	1	1	-
	4. Tailoring Center	-	17	17	-	1	-	3	1	-
	1. Physical Fitness Class at School Level	60	70	130	-	4	-	4	2	-
SPORTS & Culture	2. Kho - Kho Training Center	14	15	29	-	1	-	4	2	-
	1. construction of Bathroom at Badahariharpur	House hold-41		205	-	-	-	1	1	-
	2. Construction of Boundary wall of school, Pindrabera	Students		190	-	1	1	3	1	-
Infrastructure Development	3. Construction of Boundary wall of Graveyard, Badahariharpur	House hold-40		250	-	1	1	3	1	-
	Village meeting, Badahariharpur	-	10	10	-	1	-	1	1	-
Others Initiatives										
<b>Total</b>				<b>5849</b>				<b>18</b>	<b>7</b>	

(i) **18 villages:** Srirampur, Pindrabera, Barahariharpur, Chotahariharpur, Padampur, Bikanipur, Ghutbera, Ramjivanpur, Barkatand, Dhatkidih, Rapcha, Ramchandrapur, Shankerpur, Upperbera, Gamharlia, Kandra, Virbas, Chota Gamharlia, Virbhavajpur (ii) **7 Gram Panchayats:** 1. Rapcha, 2. Dugdha, 3. Kandra 4. Kalikapu 5. Chamaru 6. Chota Gamharlia, 7. Birbas

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### Project Highlights for the month of November 2015

- Rural Medical Camp:** A total of 18 nos. of Rural Medical Camps were conducted in 03 villages under 02 Gram Panchayat. The villages covered are (i) Padampur and (ii) Pindrabera of Rapcha Panchayat, (ii) Badahariharpur of Dugdha Panchayat, Saraikela- Kharsawan district. A total of 142 village patients including 62 males and 80 females underwent health check-up and received medical treatment accordingly.
- Safe drinking water under project Amrit Dhara:** Project Amrit Dhara is especially designed under PPP mode for serving those poorest of poor people of Gamharia Block, Saraikela who are our fellow citizens. Total members are 674 and consumed 139979 liters of safe drinking water in the month of November 2015.
- Children's day 2015 (14.11.2015) Program:** CSR dept., Adhunik Power & Natural Resources Limited, Padampur organized Speech and dance Competition among the children of PAC (**Primary Academic Center**) at Barahariharpur and Padampur on the occasion of Children's day 2015 as a part of its social responsibilities and to give the learning opportunity to the deprived section of the society.  
  
The 125<sup>th</sup> Birth Anniversary of pandit Jawaharlal Neharu, the architect of modern India which is celebrated as **CHILDREN'S DAY** was held on 14<sup>th</sup> November 2015 at **Cyber village** center Rapcha & Dugdha Gram Panchayat. The program began with prayer, dance and tributes to Chacha Nehru. 30 students participated from Rapcha and 28 students from Dugdha respectively. The celebration was also marked by speech by students of Cyber village

**Report on Corporate Social Responsibility Initiatives**

**Month: December 2015**

Adhunik Power & Natural Resource Limited (APNRL), Padampur, in partnership with Rapcha Gram Panchayat, Dugdha Gram Panchayat, Gamharla Panchayat Samiti / Block and Nav Nirman Sanstha, Jamshedpur had taken up community development projects as a part of corporate social responsibility and executed the development projects in partnership approach in the month of December 2015. The focus areas of development projects were Health, Education, Women Empowerment, Sports, Culture and Infrastructure Development. The community development initiatives were implemented in the villages of Srirampur, Pindrabera, Baraharharpur, Chotaharharpur, Padampur, Bikanipur, Ghutbera, Ramjivanpur, Barkatand, Dhatkidihi, Rapcha, Ramchandrapur, Shankerpur, Upperbera, Kandra, Gamharla of Dugdha, Kalikapur, Kandra, Chamaru & Rapcha Gram-Panchayats during the above said month. A total of 6657 Villagers (with the repetitive chance for the same person to benefit from the various activities as mentioned below) from 18 villages of 7 Gram Panchayats reaped developmental benefits through the following developmental initiatives:

Focus Area(s)	ACTIVITIES	No. of Villagers Benefited			No. of Camp(s)	No. of Centre(s)	No. of Unit(s)	No. of Gram Panchayt(s)	Water (Liter in Lakh)
		Male	Female	Total					
Health & Sanitation	1. Rural Medical Camp	57	88	145	20	-	3	2	-
	2. Safe drinking water under project Amrit Dhara	House hold- 741			-	2	1	5	1.2
	3. Supply of clean & safe water at govt. school, Badaharharpur	45	40	85	1	-	-	1	.01
	4. Drinking Water Supply through tankers	House hold- 100			1	0	3	1	.10
	5. World AIDS Day 2015	300	250	450	3	0	0	5	2
EDUCATION	1. Project CYBER VILLAGE	56	21	77	-	3	-	17	3
WOMEN EMPOWERMENT & Livelihood	1. SHG group meeting	-	87	87	-	1	-	5	3
	2. Spice production	-	14	14	-	-	1	1	1
	3. Vermin Compost	-	11	11	-	-	1	1	1
	4. Tailoring Center	-	17	17	-	1	-	3	1
SPORTS & Culture	1. Inter village - Volleyball, Carom Board, & Chess tournament (Cyber Village)	90	80	170	-	6	-	6	4
	1. Construction of Bathroom at Badaharharpur	House hold-41			-	-	1	1	1
Infrastructure Development	2. Construction of Boundary wall of school, Pindrabera	Students			-	1	1	3	1
	3. Construction of Boundary wall of Graveyard, Badaharharpur	House hold-40			-	1	1	3	1
Others Initiatives	Village meeting, Badaharharpur	-	10	10	-	1	-	1	1
<b>Total</b>				<b>6657</b>				<b>18</b>	<b>7</b>

(i) 18 villages: Srirampur, Pindrabera, Baraharharpur, Chotaharharpur, Padampur, Bikanipur, Ghutbera, Ramjivanpur, Barkatand, Dhatkidihi, Rapcha, Ramchandrapur, Shankerpur, Upperbera, Gamharla, Kandra, Virbas, Chota Gamharla, Virdhavajpur (ii) 7 Gram Panchayats: 1. Rapcha, 2. Dugdha, 3. Kandra 4. Kalikapu 5. Chamaru 6. Chota Gamharla, 7. Birbas

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## Project Highlights for the month of December 2015

1. **Rural Medical Camp:** A total of 20 nos. of Rural Medical Camps were conducted in 03 villages under 02 Gram Panchayat. The villages covered are (i) Padampur and (ii) Pindrabera of Rapcha Panchayat, (iii) Badahariharpur of Dugdha Panchayat, Saraikela- Kharsawan district. A total of 145 village patients including 57 males and 88 females underwent health check-up and received medical treatment accordingly.
2. **World AIDS Day 2015:** which is observed on 1st December each year is a day when people around the world raise awareness about HIV/AIDS. They assert their duties and responsibilities in order to increase human cooperation and possible homogeneous correspondence between the mass and the HIV affected people. **The theme of World Aids Day is "Getting to zero; end Aids by 2030"**. CSR Department of APNRL identified these important issues and observed World AIDS day. CSR team organized several awareness activities at different level make people aware on HIV and AIDS.
3. **Safe drinking water under project Amrit Dhara:** Project Amrit Dhara is especially designed under PPP mode for serving those poorest of poor people of Gamharia Block, Saraikela who are our fellow citizens. Total members are 741 and consumed 121629 liters of safe drinking water in the month of December 2015.
4. **Inter Cyber village (Computer Literacy Center) Sports Tournament:** A natural game that makes people connects to their most primitive instincts. It's spontaneous and a celebration of the human body qualities. Keeping in mind the above fact and channelizing the energy of village youth specially the Cyber village students, the Nav Nirman Sanstha had organized the annual games tournament at the Rapcha Panchayat Bhawan with the support of CSR Department of Adhunik Power & Natural Resources Limited on 5.12.2015. Approx. 200 students including girls & boys participated from the following Cyber village center -

1. Cyber village – Badahariharpur.
2. Cyber village – Dugdha
3. Cyber village- Rapcha
4. Cyber village – Kandra
5. Cyber Village- Raipur , Dumra
6. Cyber Village- Burudih

Volleyball, Carom Board, & Chess were the events covered during the annual Games.

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**Report on Corporate Social Responsibility Initiatives**

Month: January 2016

Adhunik Power & Natural Resource Limited (APNRL), Padampur, in partnership with Rapcha Gram Panchayat, Dugdha Gram Panchayat, Gamharlia Panchayat Samiti / Block and Nav Nirman Sanstha, Jamshedpur had taken up community development projects as a part of corporate social responsibility and executed the development projects in partnership approach in the month of January 2016. The focus areas of development projects were Health, Education, Women Empowerment, Sports, Culture and Infrastructure Development. The community development initiatives were implemented in the villages of Srirampur, Pindrabera, Barahariharpur, Chotahariharpur, Padampur, Bikanipur, Ghutbera, Ramjivanpur, Barkatand, Dhatkidih, Rapcha, Ramchandrapur, Shankerpur, Upperbera, Kandra, Gamharlia of Dugdha, Kalikapur, Kandra, Chamaru & Rapcha Gram-Panchayats during the above said month. A total of 6629 Villagers (with the repetitive chance for the same person to benefit from the various activities as mentioned below) from 18 villages of 7 Gram Panchayats reaped developmental benefits through the following developmental initiatives:

Focus Area(s)	ACTIVITIES	No. of Villagers Benefited		No. of Camp(s)	No. of Centre(s)	No. of Unit(s)	No. Villages	No. of Gram Panchayats)	Water (liter in Lakh)	
		Male	Female							
Health & Sanitation	1. Rural Medical Camp	20	36	56	07	-	3	2	-	
	2. Safe drinking water under project Amrit Dhara	House hold-796		4776	-	2	1	15	5	1.2
	3. Supply of clean & safe water at govt. school, Badahariharpur	45	40	85	1	-	-	1	1	.01
	4. Drinking Water Supply through tankers	House hold-50		250	1	0	3	1	1	.05
EDUCATION	1. Project CYBER VILLAGE	56	21	77	-	3	-	17	3	-
	1. SHG group meeting	-	78	78	-	1	-	5	3	-
	2. Spice production	-	14	14	-	-	1	1	1	-
	3. Vermin Compost	-	11	11	-	-	1	1	1	-
	4. Murhri packaging	-	15	15	-	1	-	1	1	-
SPORTS & Culture	5. Tailoring Center	-	17	17	-	1	-	3	1	-
	1. Inter village -Football tournament	500	80	580	-	1	-	18	7	-
	1. Construction of Bathroom at Badahariharpur	House hold-41		205	-	-	1	1	1	-
	2. Construction of Boundary wall of school, Pindrabera	Students		190	-	1	1	3	1	-
	3. Construction of Boundary wall of Graveyard, Badahariharpur	House hold-40		250	-	1	1	3	1	-
Others Initiatives	Panchayat Samiti Meeting, Gamharlia	15	10	25	-	1	-	-	-	-
	<b>Total</b>			<b>6629</b>	-	-	-	<b>18</b>	<b>7</b>	-

(i) 18 villages: Srirampur, Pindrabera, Barahariharpur, Chotahariharpur, Padampur, Bikanipur, Ghutbera, Ramjivanpur, Barkatand, Dhatkidih, Rapcha, Ramchandrapur, Shankerpur, Upperbera, Gamharlia, Kandra, Virbas, Chota Gamharlia, Virbhavajpur (ii) 7 Gram Panchayats: 1. Rapcha, 2. Dugdha, 3. Kandra 4. Kalikapu 5. Chamaur 6. Chota Gamharlia, 7. Birbas

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### Project Highlights for the month of January 2016

1. **Rural Medical Camp:** A total of 07 nos. of Rural Medical Camps were conducted in 03 villages under 02 Gram Panchayat. The villages covered are (i) Padampur and (ii) Pindrabera of Rapcha Panchayat, (ii) Badahariharpur of Dugdha Panchayat, Saraikela- Kharsawan district. A total of 56 village patients including 20 males and 36 females underwent health check-up and received medical treatment accordingly.
2. **Safe drinking water under project Amrit Dhara:** Project Amrit Dhara is especially designed under PPP mode for serving those poorest of poor people of Gamharia Block, Saraikela who are our fellow citizens. Total members are 796 and consumed 120698 liters of safe drinking water in the month of January 2016.
3. **Sarana Mahila Samiti initiate spice production at Pindrabera:** 14- members of Sarna Mahila Samiti (SHG) at Pindrabera engaged in spice making as their livelihood.
4. **Jahir Ayo Mahila Samiti:** 15 - members of Jahir Ayo Mahila Samiti Self-help group of Rapcha engaged in Murhi packaging and selling (trading).

**Report on Corporate Social Responsibility Initiatives**

Month: Feb. 2016

Adhunik Power & Natural Resource Limited (APNRL), Padampur, in partnership with Rapcha Gram Panchayat, Dugdha Gram Panchayat, Gamharla Panchayat Samiti / Block and Nav Nirman Sanstha, Jamshedpur had taken up community development projects as a part of corporate social responsibility and executed the development projects in partnership approach in the month of Feb. 2016. The focus areas of development projects were Health, Education, Women Empowerment, Sports, Culture and Infrastructure Development. The community development initiatives were implemented in the villages of Srirampur, Pindrabera, Barahariharpur, Chotahariharpur, Padampur, Bikanipur, Ghutbera, Ramjivanpur, Barkatand, Dhatkidih, Rapcha, Ramchandrapur, Shankerpur, Upperbera, Kandra, Gamharla of Dugdha, Kalikapur, Kandra, Chamaru & Rapcha Gram-Panchayats during the above said month. A total of 6936 Villagers (with the repetitive chance for the same person to benefit from the various activities as mentioned below) from 18 villages of 7 Gram Panchayats reaped developmental benefits through the following developmental initiatives:

Focus Area(s)	ACTIVITIES	No. of Villagers Benefited			No. of Camp(s)	No. of Centre(s)	No. of Unit(s)	No. of Gram Panchayats(s)	No. of Villages	Water (liter in Lakh)
		Male	Female	Total						
Health & Sanitation	1. Ambulance services availed by villagers	17	5	22	-	-	-	3	7	-
	2. Safe drinking water under project Amrit Dhara	House hold- 812		477	2	1	15	1	5	1.2
	3. Supply of clean & safe water at govt. school, Badahariharpur	45	40	85	1	-	-	1	1	.01
	4. Drinking Water Supply through tankers	House hold- 200		100	1	0	3	1	1	.20
EDUCATION	1. Project CYBER VILLAGE	56	21	77	-	3	-	3	17	-
	2. Transport facilities (Matric exam. Students)	6	16	22	-	1	-	4	6	-
	3. Regular Bus facilities for Girls student	-	40	40	-	1	-	2	6	-
WOMEN EMPOWERMENT & Livelihood	1. SHG group meeting	-	78	78	-	1	-	3	5	-
	2. Spice production	-	14	14	-	-	1	1	1	-
	3. Vermin Compost	-	11	11	-	-	1	1	1	-
	4. Murhri packaging	-	15	15	-	1	-	1	1	-
	5. Tailoring Center	-	17	17	-	1	-	3	3	-
	6. W/S on women Empowerment			60		1		3	3	
SPORTS & Culture	1. Kho-Kho Training	3	4	7	-	1	-	1	2	-
	1. Construction of Bathroom at Badahariharpur	House hold- 41		205	-	-	1	1	1	-
Infrastructure Development	2. Construction of Boundary wall of school, Pindrabera	Students		190	-	1	1	3	3	-
	3. Construction of Boundary wall of Graveyard, Badahariharpur	House hold- 40		250	-	1	1	3	3	-
	Mahila Mandal meeting at Padampur District level review meeting	0	40	40	-	1	-	1	1	-
Others Initiatives			27							
<b>Total</b>				<b>6936</b>				<b>18</b>	<b>7</b>	

(i) 18 villages: Srirampur, Pindrabera, Barahariharpur, Chotahariharpur, Padampur, Bikanipur, Ghutbera, Ramjivanpur, Barkatand, Dhatkidih, Rapcha, Ramchandrapur, Shankerpur, Upperbera, Gamharla, Kandra, Virbas, Chota Gamharla, Virdhavajpur (ii) 7 Gram Panchayats: 1. Rapcha, 2. Dugdha, 3. Kandra 4 Kalikapu 5 Chamaur 6.

Project Highlights for the month of Feb. 2016

1. **Ambulance Services:** 24 X 7 ambulance facility has been providing to the villagers of peripheral village for better treatment. 22 Nos. of villagers' availed ambulance facilities during the month.
2. **Safe drinking water under project Amrit Dhara:** Project Amrit Dhara is especially designed under PPP mode for serving those poorest of poor people of Gamhariã Block, Saraikela who are our fellow citizens. Total members are 812 and consumed 125693 liters of safe drinking water in the month of Feb.2016.
3. **Bus facilities:** Bus facility has been providing to girls students of peripheral village for higher education at Jamshedpur. About 40 girls' students availed the Bus facilities.
4. **Sarana Mahila Samiti initiate spice production at Pindrabera:** 14- members of Sarna Mahila Samiti (SHG) at Pindrabera engaged in spice making as their livelihood.
5. **Jahir Ayo Mahila Samiti:** 15 - members of Jahir Ayo Mahila Samiti Self-help group of Rapcha engaged in Murhi packaging and selling (trading).
6. **Women Empowerment workshop:** A workshop on Women Empowerment was organized on 13.02.2016 by Labour & Education deptt., Govt. of India at Burudih Gram Panchayat Bhavan under the leadership of Mr. Sanjay Kumar, Labour Education Officer of Jamshedpur Region. About 60 women from various SHG's of Burudih Gram Panchayat participated in the program
7. **Mahila Mandal meeting:** A Mahila Mandal meeting was organized on 20.2.2015 at Community center, Padampur. 40 women were participated in the meeting and discussed following points-
  1. Village development Activities
  2. Formation of SHG
  3. Govt Program like sanitation, MANAREGA, Bridha pension etc

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**Report on Corporate Social Responsibility Initiatives**

**Month: March 2016**

Adhunik Power & Natural Resource Limited (APNRL), Padampur, in partnership with Rapcha Gram Panchayat, Dugdha Gram Panchayat, Gamharia Panchayat Samiti / Block and Nav Nirman Sanstha, Jamshedpur had taken up community development projects as a part of corporate social responsibility and executed the development projects in partnership approach in the month of March 2016. The focus areas of development projects were Health, Education, Women Empowerment, Sports, Culture and Infrastructure Development. The community development initiatives were implemented in the villages of Srirampur, Pindrabera, Barahariharpur, Chotahariharpur, Padampur, Bikanipur, Ghutbera, Ramjivanpur, Barkatand, Dhatkidih, Rapcha, Ramchandrapur, Shankerpur, Upperbera, Kandra, Gamharia of Dugdha, Kalikapur, Kandra, Chamaru & Rapcha Gram-Panchayats during the above said month. A total of 7565 Villagers (with the repetitive chance for the same person to benefit from the various activities as mentioned below) from 18 villages of 7 Gram Panchayats reaped developmental benefits through the following developmental initiatives:

Focus Area(s)	ACTIVITIES	No. of Villagers Benefitted			No. of Camp(s)	No. of Centre(s)	No. of Unit(s)	No. of Gram Panchayats(s)	(Liter In Lakh)
		Male	Female	Total					
Health & Sanitation	1. Ambulance services availed by villagers	13	8	21	-	-	-	5	3
	2. Rural Health Camps	22	34	56	7			2	2
	3. Safe drinking water under project Amrit Dhara	House hold-867			2	1	15	5	1
	4. Supply of clean & safe water at govt. school, Badahariharpur	45	40	85	1	-		1	1
	5. Drinking Water Supply through tankers	House hold-250			1	0	3	1	1
EDUCATION	1. Project CYBER VILLAGE	56	21	77	-	3	-	17	3
	2. Transport facilities (9 <sup>th</sup> class exam. Students)	2	10	12	-	1	-	6	4
	3. Regular Bus facilities for Girls student	-	40	40	-	1	-	6	2
	1. SHG group meeting	-	97	97	-	1	-	7	4
	2. Spice production	-	14	14	-	-	1	1	1
WOMEN EMPOWERMENT & Livelihood	3. Vermin Compost	-	11	11	-	-	1	1	1
	4. Murhri packaging	-	15	15	-	1	-	1	1
	5. Tailoring Center	-	19	19	-	1	-	3	1
	1. Kho-Kho Training	3	4	7	-	1	-	2	1
	1. Construction of Bathroom at Badahariharpur	House hold-41			-	-	1	1	1
Infrastructure Development	2. Construction of Boundary wall of school, Pindrabera	Students			-	1	1	3	1
	3. Construction of Boundary wall of Graveyard, Badahariharpur	House hold-40			-	1	1	3	1
	Tutorial class started at Badahariharpur for school children	6	8	14	-	1	-	2	1
<b>Total</b>			<b>7565</b>				<b>18</b>	<b>7</b>	

(i) 18 villages: Srirampur, Pindrabera, Barahariharpur, Chotahariharpur, Padampur, Bikanipur, Ghutbera, Ramjivanpur, Barkatand, Dhatkidih, Rapcha, Ramchandrapur, Shankerpur, Upperbera, Gamharia, Kandra, Virbas, Chota Gamharia, Virbhavajpur (ii) 7 Gram Panchayats: 1. Rapcha, 2. Dugdha, 3. Kandra 4. Kalikapu 5. Chamaru 6.

Project Highlights for the month of March 2016

1. Ambulance Services: 24 X 7 ambulance facility has been providing to the villagers of peripheral village for better treatment. 21 Nos. of villagers' availed ambulance facilities during the month.
2. Rural Medical Camp: A total of 7 nos. of Rural Medical Camps were conducted in 02 villages under 02 Gram Panchayat. The villages covered are (i) Padampur of Rapcha Panchayat, (ii) Badahariharpur of Dugdha Panchayat, Saraikela- Kharsawan district. A total of 56 village patients including 22 males and 34 females underwent health check-up and received medical treatment accordingly.
3. Safe drinking water under project Amrit Dhara: Project Amrit Dhara is especially designed under PPP mode for serving those poorest of poor people of Gamharria Block, Saraikela who are our fellow citizens. Total members are 867 and consumed 130654 liters of safe drinking water in the month of March 2016.
4. Bus facilities: Bus facility has been providing to girls students of peripheral village for higher education at Jamshedpur. About 40 girls' students availed the Bus facilities.
5. Sarana Mahila Samiti initiate spice production at Pindrabera: 14- members of Sarana Mahila Samiti (SHG) at Pindrabera engaged in spice making as their livelihood.
6. Jahir Ayo Mahila Samiti: 15 - members of Jahir Ayo Mahila Samiti Self-help group of Rapcha engaged in Murhri packaging and selling (trading).

# 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
		October	November	December	January	February	March	
1	Total Cr	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	mg/L
2	Copper	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	mg/L
3	Zinc	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	mg/L
4	Phosphates	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	mg/L
5	pH	7.2	7.6	7.2	7.3	7.1	7.2	-
6	Suspended Solids	100	21	22	21	23	25	mg/L
7	Oil & Grease	10	N.D.	N.D.	N.D.	N.D.	N.D.	mg/L
8	BOD 3 day 27 Deg. C	30	2.3 <sup>c</sup>	2.1	1.9	1.6	1.6	mg/L
9	COD	250	12.6	13.4	12.9	14.6	12.8	mg/L
10	TDS	-	364	351	341	356	346	-
11	Chloride	-	235	231	212	203	215	-
12	Sulphate	-	20.4	21.8	19.6	18.7	12.7	-
13	Iron	3	0.62	0.53	0.44	0.42	0.46	mg/L

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

bpr

# Adhunik Power & Natural Resources Limited, Padampur

## NOISE LEVEL MONITORING REPORT

Sl.No.	LOCATION	Ambient Noise Monitoring						Work Zone Noise Monitoring		
		NEAR MAIN GATE	ADMINISTRATIVE BUILDING	COAL YARD	NEAR COOLING TOWER	BOILER FEED PUMP	TURBINE FLOOR			
1	OCT-15	Day	30.5	51.6	40.3	71.6	52.8	75	81.9	82.6
		Night	70 DBA	75 DBA	70 DBA	75 DBA	70 DBA	75 DBA	81.9	82.6
2	NOV-15	Day	50.3	53.6	39.4	72.6	53.4	77	81.9	81.6
		Night	70 DBA	75 DBA	70 DBA	75 DBA	70 DBA	75 DBA	81.9	81.6
3	DEC-15	Day	48.6	54.1	35.8	70.8	55.1	76	82.6	84.1
		Night	70 DBA	75 DBA	70 DBA	75 DBA	70 DBA	75 DBA	82.6	84.1
4	Jan-16	Day	44.8	55.4	32.8	68.1	51.9	77	83	82.7
		Night	70 DBA	75 DBA	70 DBA	75 DBA	70 DBA	75 DBA	83	82.7
5	Feb-16	Day	49.7	55.7	31.2	71.9	51.6	77	79.6	82.4
		Night	70 DBA	75 DBA	70 DBA	75 DBA	70 DBA	75 DBA	79.6	82.4
6	Mar-16	Day	46.9	51.6	35.4	72.9	51.9	76	78.6	83.1
		Night	70 DBA	75 DBA	70 DBA	75 DBA	70 DBA	75 DBA	78.6	83.1

3

Annexure XI  
o/c



**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 No APNRL/JSPCB/ES/2014-15/02

Date: 15th Sep 2015

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  
2014-15.

This is for your kind information & record please.

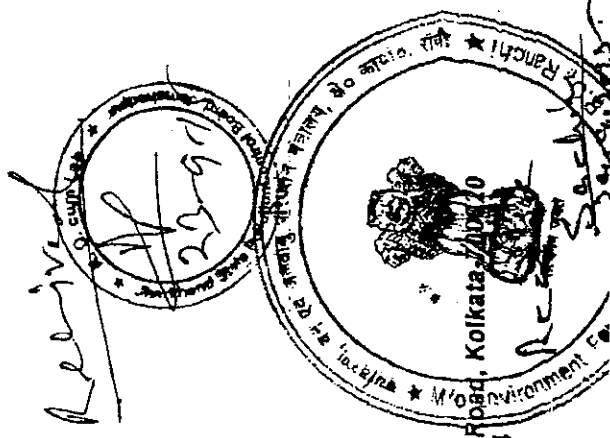
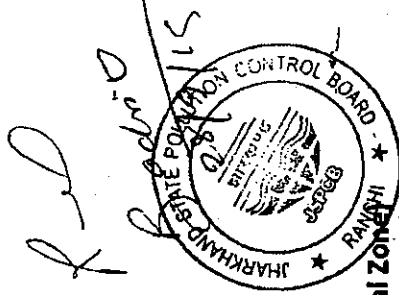
Thanking You

Your's faithfully

Kamlesh Kumar  
Deputy Manager ( Environment)

Encl: As mentioned above

- CC: 1. The Regional Office (Eastern-Central Zone)  
Ministry of Environment, Forest & Climate Change  
Bunglow No A-2, Shyamali Colony, Ranchi, Jharkhand  
2. The Regional Officer  
Jharkhand Pollution Control Board  
Jamshedpur

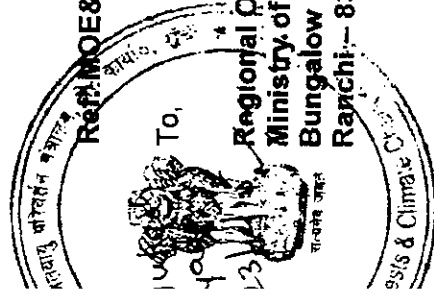


CORPORATE OFFICE : "CRESCENT TOWER", 3<sup>rd</sup> Floor, 229 A.J.C. Bose Road,  
Kolkata, 700 70  
Phone : +91-33-30915300 \* Fax : +91-33-30915344



# 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/KK/10122015 /02

Dated: 10.12.2015

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 2015 to September 2015,-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 2015 to September 2015.

This is for your reference and record, please.

Thanking you,

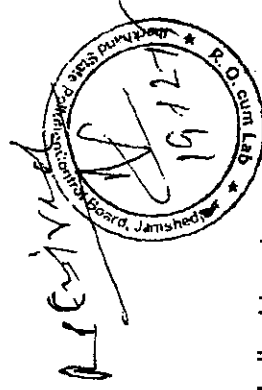
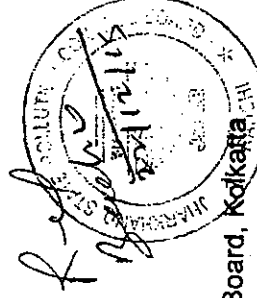
For Adhunik Power & Natural resources Limited

(Authorized Signatory)

Encl: As Above

Copy to:

- ii) Central Pollution Control Board, Kolkata
- ii) Member Sec., Jharkhand State Pollution Control Board, Jharkhand
- iii) Regional Officer, JSPCB, Jamshedpur



## Item wise cost incurred on Environment protection measures of M/s Adhunik Power & Natural Resources Ltd.

Sl No	Description of Environment Measures	Year 2015-16(in Lakhs)		
		Unit II (1 x 270 MW)		
		Energy	Other cost	Total Cost
1	ESP operation & Maintenance	165.65	5.83	171.48
2	AHP operation & Maintenance	219.70	47.23	266.93
3	ETP & STP operation & Maintenance	41.26	15.41	56.67
4	Plant Housekeeping	0.00	44.68	30.25
5	DE System Operation & Maintenance	9.06	2.36	11.42
6	DS operation & Maintenance	0.25	3.75	4.00
7	Green Belt development	0.10	18.92	19.02
8	Environment Management system(Monitoring, Equipment Calibration, Clebration of Environment Programmes & Preparation of Environment Audit, ESMS report)	0.68	8.20	8.88
9	Ash disposal system	0.00	189.50	189.50
10	Rain water harvesting system	0.00	0.25	0.25
11	CAAQMS & CEMS Operation & Maintenance	0.00	1.50	1.50
		<b>436.70</b>	<b>337.63</b>	<b>759.90</b>

*ASD*