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-832402 ℗ PHONE:06576628400 ℗ FAX :0657 6628440
Website : www.adhunikgroup.com

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

REPORT

ENVIRONMENTAL COMPLIANCE STATUS REPORT FOR EXPANSION OF 1X270 MW COAL BASED POWER PLANT

(Unit II)

OCTOBER'2016 – MARCH'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: October,16-March,17		
Sl No	**EC Conditions**	**Status as on 31st March 2017**
A. Specific Conditions:		
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 30th 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 29th 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 **Annexure I.**
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. 1st installment already submitted. **Complied**
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 30th Dec 2011.Vision Document enclosed as **Annexure II.**
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.	For railway siding transportation clearance has received by from Ministry of Railway date 10.7.2008. A copy of railway siding transportation clearance enclosed as **Annexure III.**
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 sustainability report has been prepared by IIT Kharagpur. Report was already submitted to MoEF BBS dated 11.11.11. Acknowledgment copy enclosed as **Annexure IV.**

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. **Complied**
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.	Status of renovation of degenerated pond enclosed as **Annexure V.**
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 3rd party Monitoring APNRL engaging NABL accredited M/s Yugantar Bharti (for the month of Dec 2016). **Surface Water Analysis report and Ground water analysis report of upstream & Downstream of Ash pond from Oct,16 to March,17 enclosed as Annexure VI & Annexure VII respectively**
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. Acknowledgment copy is enclosed as **Annexure VIII.**
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.	We ensure.
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. **Ground water analysis report of upstream & Downstream of Ash pond from Oct, 16 to March,17 enclosed as Annexure VII.**
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.	**Surface Water Analysis report and Ground water analysis report of upstream & Downstream of Ash pond from Oct,16 to March,17 enclosed as Annexure VI & Annexure VII respectively**
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 adhering.
xx.	Provision for installation of FGD shall be provided for future use	FGD space is available on site for future use, however concentration of SO2 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.	Agreed & strictly complying.
xxii.	Stacks of 275 m height shall be installed and provided with continuous online monitoring equipments for SO_x, NO_x and $PM_{2.5}$ & PM_{10}. 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. **Stack Monitoring report and Ambient Air Monitoring report from Oct,16 to March,17 enclosed as Annexure IX & Annexure X respectively**
xxiii.	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm^3.	High efficient ESPs of 32 fields have installed to ensure control PM emission in flue gas. **Stack Monitoring report from Oct,16 to March,17 enclosed as Annexure IX .**
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 4th year of operation. Status	Agreements made with cement plants, brick plants, etc to ensure 100% utilization of fly ash from 4th

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. **Bottom ash analysis report & effluent analysis report of ash pond attached as Annexure XII & Annexure XIII respectively.**
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.	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 dome 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. **Coal Analysis report enclosed as Annexure XIV.**
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.51632 nos.(Area covered-38.2 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 84.2%. Total Survived plants are 43474. Plantation in financial year (2016-17)-5998 samplings. Name of Plant Species- Gulamohar, Neem, Pelatforum, Seesam, Bakul, Jamun etc. Details of Plantation enclosed as **Annexure XV** 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	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 co-ordination with the district administration.	APNRL has adopted villages a. Baraharihарpur b. Padampur c. Srirampur CSR is also providing the facilities in following villages d. Pindrabera e. Chotahariharpur f. Ramjivanpur g. Bikanipur etc. Details of CSR activity enclosed as **Annexure XVI.**
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 **Annexure XVI.**
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 **Annexure XVII.**
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 **XVI** for the period of **Oct 2016 to March 2017.**
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.	Details of the activities report has submitted on MoEF on 9th Nov 2011
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	All CSR activities are monitored on weekly and monthly basis.

B. General Conditions:		
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.	The project is designed with zero discharge provisions (except during monsoon) and drains as suggested is being maintained. **Treated effluent analysis report of Guard pond from Oct, 16- March,17 enclosed as Annexure XVIII.**
		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.
ii.	A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation	03 No's 60 Kl capacity STP has commissioned at site.
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.
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
		The analysis report for LDO is enclosed as **Annexure XIX.**
		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.	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
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	Adequate measures has implemented in consistent with the EMP to control turbine noise levels within stipulated limits. This include installing of sufficient engineering control in turbines as per design specifications, provision of ear plugs/ear muffs for workers exposed to high noise, rotation of workers and carrying out periodic audiometric testing of workers and records is being maintained. **Noise level monitoring report from Oct, 16 to March, 17**

vii.	Regular monitoring of ambient air ground level concentration of SO_2, NOx, $PM_{2.5}$ & PM_{10} 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.	Monthly monitoring of Air quality is being undertaken by APNRL engaging Thermax & through NABL Accredited M/s Yuganthar Bharti in the month of Aug 2016. Review of air quality monitoring results revealed compliance to NAAQS. Realtime data of CAAQMS has been uploaded at CPCB & JSPCB website. **Ambient Air monitoring reports from Oct, 16 to March, 17 enclosed As Annexure XXI.**
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.
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 http://envfor.nic.in.	**Complied**
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.	**Complied**
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. **Organization chart of Environmental Management Cell enclosed as Annexure XXII.**

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 ($PM_{2.5}$ & PM_{10}), SO_2, NO_x (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.	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, SO2, NOx) 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 been seen on **URL: http://www.adhunikgroup.com/uploads/ec_pdf/1484041616.pdf**
xiii.	The environment statement for each financial year ending 31st 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 (2015-16) in Form V has submitted to JSPCB vide letter No : APNRL/JSPCB/ES/2015-16/02 dated 14th Sep 2016. **Acknowledgement copy of same attached as Annexure XXIII.**
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 28TH Nov 2016. **Acknowledgement copy of same attached as Annexure XXIV.**
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_x (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, SO2, NOx) for both ambient air quality and chimney emissions is being displayed at the main gate of the company. However Half yearly progress report is being sent to RO office on regular basis as per the requirement.

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 2016-17(Oct 2016- March 2017) attached as **Annexure XXV**.
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	**Complied**
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

Annexure I (13)

कार्यालय :–प्रधान मुख्य वन संरक्षक झारखण्ड, राँची।

पत्रांक:–19एम01(5)29/2008 2574 दिनांक:– 23.7.09

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

मैसर्स आधुनिक थर्मल एनर्जी लिमिटेड के कान्ड्रा पदमपुर, श्री रामपुर, रामचन्द्रपुर मौजा, जिला–सरायकेला–खरसांवा 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, रांची 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 काण्ड्रा पदमपुर, श्रीरामपुर, रामचन्द्रपुर मौजा 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 कि0मी0 दूर स्थापित होगा। प्रस्तावित क्षेत्र की 10 कि0मी0 त्रिज्या के अंदर अवस्थित वन भूमि सिंहभूम गज आरक्ष्य का भाग है।
3. वन प्रमण्डल पदाधिकारी, वन्यप्राणी प्रमण्डल, रांची 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 कि0मी0 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 कि0मी0 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 कि0मी0 से अधिक दूरी वर अवस्थित है। इसके अतिरिक्त कोई अन्य हाथी कोरीडोर प्रस्तावित

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 अनियामित है। उन्होने यह भी वर्णित किया है कि आश्रयणी से हाथियों का आवागमन रामगढ, एन0एच0–33, डोभी, 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 कि0मी0(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 इंण्डिया, नई दिल्ली" के द्वारा किया गया है। इस कार्य में झारखंड वन विभाग के द्वारा भी सहयोग किया गया था। उपरोक्त स्वयंसेवी संस्था द्वारा प्रकाषित '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 लि0, बी0के0 स्टील आई0ओ0सी0एल0, टी0सी0एस0, उषा मार्टिन, नीलांचल स्टील, आदि स्थापित हैं। यह अनुलग्नक–3 पर दो प्रतियो 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 प्रमंडल, 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

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

9. प्रधान मुख्य वन संरक्षक, जैव विविधता संरक्षण एवं मुख्य वन्यप्राणी प्रतिपालक, झारखण्ड,रांची द्वारा अग्रलिखित शर्त्त पर संबंधित परियोजना हेतु एन0ओ0सी0 निर्गत करने की अनुशंसा की गई है कि EIA के ToR की शर्त्त V के आलोक में प्रयोक्ता अभिकरण को इस आशय की वचनबद्धता देनी होगी कि प्रयोक्ता अभिकरण वन्य प्राणी विशेषज्ञ की मदद से Wildlife Mitigation and Conservation Plan उक्त क्षेत्र विशेष हेतु तैयार करा कर EIA मे 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।

अनु0–यथोक्त।

विश्वासभाजन,

21/7

प्रधान मुख्य वन संरक्षक,
झारखण्ड, रांची।

19/7

Annexure II

VISION DOCUMENT FOR ADHUNIK POWER & NATURAL RESOURCES LTD.

Introduction & Background

Adhunik Power & Natural Resources Ltd. (APNRL) has received environmental clearance from Ministry of Environment & Forest (MoEF) for its proposed thermal power expansion project through addition of 1 X 270 MW coal based thermal power unit at villages Padampur, Srirampur, Kendudih and Birbans in Kandra Taluk , in Saraikela Kharsawan district in Jharkhand. The total land requirement for the proposed project is 800.62 acres with Phase I of the project under advance stage of construction. In accordance to the conditions in Environmental Clearance document APNRL is required to formulate a vision document specifying prospective plan for the site and share the same with MoEF.

Fuel, Power and Combustion

Coal reserves being huge and located all over the world without being concentrated in a single region eliminates political instability risks as in the case of oil and will continue to be an indispensable power source in coming future. However, because coal is a fossil fuel that is burned during power generation, it unavoidably emits CO_2, currently regarded as one of the major causes of global warming. Not only that, but of all the fossil fuels used for power generation, coal is considered the largest emitter of CO_2. When considering that coal will remain to be the largest source of global power generation, reducing the amount of CO_2 emitted by coal-fired power plants will be very effective in reducing global warming. Reducing CO_2 emissions requires technology that

raises the efficiency of power generation so that more electricity can be generated with less fuel. Technology development is anticipated to progress and lead to reducing CO_2 emissions from coal-fired power plants.

Currently the plant is proposed to utilise sub-critical technology and Indian coal for power generation. However during the estimated project life of 25 years, APNRL will be on continuous look out for newer technologies that would improve power generation efficiencies and reduce GHG emissions. Such technologies will be evaluated for their feasibility and adopted through necessary modifications in the plant set-up. Pulverised and fluidised bed combustion modes have already demonstrated significant GHG reductions and similar developments are expected in future. In case there is an increased availability of natural gas in this region, APNRL will also explore the possibility of fuel-shift which will require a major investment but will also result in much higher efficiency of power generation and much lower GHG emissions.

In addition to the GHG emissions, the other most important emissions to air from the combustion of coal are SO_2, NO_X, CO, Particulate matter (PM_{10}). Other substances such as heavy metals are emitted in smaller quantities. Electrostatic precipitator (ESP) is currently proposed to be utilised for reducing the particulate matter emissions and space provision for Flue-gas Desulphurisation (FGD) to minimise possible increase in sulphur related emissions. APNRL will continue monitoring of the effective operation of this air pollution control equipment, but will also be continuously explore newer technologies in this

Steam, Water and Nature

Overuse of freshwater resources has depleted aquifers, lowered water tables, shrunk inland lakes, diminished stream flows, and polluted waters across India and the world. India, in particular, faces severe water availability and quality constraints in many areas. This situation is likely to severely impact policies on water allocation and it's sectoral distribution. APNRL recognises this and will continuously strive to look out for

technologies related to cooling, which is the major consumer of water in power plant. Currently this is determined by the factor "Cycles of Concentration", and so any advancements in technology, would be in relation to this. APNRL would implement such technologies depending on feasibility and state of policies of water allocation.

Land and it's Effective Utilisation

APNRL also recognises availability of land and demands on it are moving towards a situation, where every inch of land will be required to be optimally utilised. The project is currently proposed to utilise 800.62 acres of land, and generate 540 MW of power, which is again going to be influenced by technological developments of power generation. APNRL will be on a look out for such technologies that can enhance utilisation of land available, for increased power requirements of the state and nation. Solutions to current problems on ash utilisation are also expected to be resolved in near future and effect the land requirement significantly.

People, Biodiversity and Energy

Health of the communities living adjacent to power plant, the forests and protected areas nurturing wildlife, and the energy needs of the society – will need to be continuously balanced. All the impacts anticipated from this project will be monitored for their effects on the nearby people, the biodiversity of the area. This monitoring will provide us a feedback on evaluating the technologies and methods that we are using for generating power, and assess the need of new technologies or change in operating processes. APNRL is committed to deploy such technologies and processes, depending on the feasibility and needs of the society.

All the above aspects will be integrated as part of a management system, which will also provide corporate level feedback for the power division of Adhunik Group and its vision.

Community Development & CSR

Communities form an integral part of any development projects which makes it necessary for the project proponent to build relationships with the nearby village communities/organizations in order to identify common concerns and create social upliftment opportunities thereby fostering social inclusion and equality. In view of the above APNRL as part of its proposed thermal power project will adopt all possible measures to promote sustainable development benefits and opportunities to local communities including indigenous people and establish and maintain ongoing relationship through the process of informed consultation and participation. Local community development initiatives will primarily emphasize on weaker section of the society and strive in retaining the socio-economic and cultural heritage of the contiguous area.

APNRL will continuously strive towards local community upIfitment/development through formulation and implementation of specific CSR activities/initiatives identified in consultation with Village Development Committees (VDCs)/District Administration and will be primarily encompassing – strengthening of village level infrastructure through development of roads, construction of primary health centres, hospital & primary schools, provision of potable water supply and sanitation facilities; generate local employment and sustainable livelihood opportunities through appropriate training of employable youth and implementation of income generating schemes; empowering women folk through formation and effective operation of Self Help Groups (SHGs); conserving indigenous culture of the area through promotion of traditional sports and cultural festivals/programs. In this regard a time bound CSR scheme/program with necessary budgetary allocation will be developed by APNRL in consultation with various stakeholders and the same will be periodically monitored for their effective functioning/operation.

Annexure III (13)

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)

No. 2008 / TT(V)/18/ Kandra TPS

New Delhi, Dated 16 .7. 08

M/s Adhunik Thernal Energy Ltd.
Lansdowne Towers,
2/1A, Star Bose Road,
Kolkata – 700020.

.Dear Sir,

Sub:-. Rail Transport Clearance for construction of private Railway siding at Tori Railway Station for movement of coal from the Coal mine namely Ganeshpur and Dhadhu under CCL to proposed 2X135 MW in future will be 1000 MW.

Ref:- Your letter No. ATEL /TORI/07-08/03, Dated 20.02.. 08.

****

Ministry of Railway hereby grants Rail Transport Clearance for movement of Coal from Tori near Dhanbad to the proposed power plant near Kandra station under Chakradharpur Division of on a/c of M/s Adhunik Thermal Energy Ltd. :-

Commodity	Quantity	Destination
Coal	1.44 MTPA	From Tori near Dhanbad to TPS site near Kandra station

The clearance is granted subject to following conditions:-

a) The party should identify the final siding layout and take off with consultation of the Zonal Railway.

b) Entering into valid siding agreement with Zonal Railways for the purposes of moving the above mentioned traffic on the conditions mentioned above;

c) Rail transport Clearance once issued will be valid for full life of the project, if commissioned or for 5 years in case project is not commissioned. However, Annual Report has to be submitted by the company till the project is commissioned. If Annual Reports are not furnished, RTC will be treated as cancelled. Fresh Rail Transport Clearance should be obtained after cancellation / expiry of RTC.

d) New siding should be designed for direct entry of trains into plant premises for dropping in peripheral yard without the facility of exchange yard;

e) The party will have to pay for the cost of railway staff who may have to be posted at the siding premises and provide residential accommodation and other facilities in terms of the extant rules and guidelines of Railway Board. These details should be finalized in consultation with the concerned Zonal Railways;

f) The railways would prefer to issue computerized Railway Receipts (RRS), facilities like terminal etc will have to be provided at the booking points whilst the software will be provided by the Railways, the party will have to provided by the hardware. The details of the facilities required would be decided mutually between the Railways and the plant ;

g) In the event of the mainline getting electrified, it will be necessary to electrify the siding also. The party should agree to pay for the electrification of the siding in accordance with the extant instruction in force;

h) The party should also develop facilities for loading and unloading on "Engine – on – train" concept and design yard layouts to facilitate the "Engine – on – train" would mean loading or unloading in such manner and with in such time as would permit clearance of the same rake by the same engine;

(P.R. Parhi)
Jt. Director Transport (Planning),
Railway Board.

Copy to:- G.M. (Operations), South Eastern Railway, Kolkata. Above condition should be incorporated in the Siding Agreement to be entered by Zonal Railway. Zonal Railway should inform Railway Board annually on the status of the project including its commissioning.

Recd by Tool on 26/1

East Central Railway

Office of GM (OPTG)
East Central Railway
Hajipur

No. ECR / OPT /Pvt-Sdg/ATEL/505

Date- 12.03.2010

Chief Advisor (Rly Logistics)
Adhunik power & Natural Resources Ltd
Lands Tdowne Towers, 2/1A Sarat Bose Road , Kolkata - 700020

Sub- : Rail Transport Clearnce for construction of private Railway siding at Tori Railway Station for movement of coal from the Coal mine namely Ganshpur and Dhandu under CCL.

Ref- (1) Railway Board letter No. 2008/TT/18/Kandra/TPS dated 10.07.08
(2)Your office letter no. APNRL/Tori/ECR/Pvt-Sdg/08 dated 16.02.2010

Vide reference reference 01 Railway Board issued RTC for M/s Adhunik thermal Power Energy Ltd for the movement projected traffic 1.44 MTPA. Now vide reference 02 your request for enhancing the projected traffic form 1.44 MTPA to 3.0 MTPA has been examined. This Railway has no objection to carry the 3.0 MTPA projected traffic. Since RTC once issued will be valid for full life of project hence there is no need to issue another RTC for the same project.Howevcer your request is being intimated to all concerned.

(A.A.Hussain) 12/3/10
For Chief Traffic Planning Manager
East Central Railway
Hajipur

Copy to-(1) Jt.Director Transport (Planning), Railway Bord New Delhi- For your kind information and necessary guideline if any in this regard.
(2) CTPM- S.E.Railwy, Kolkata

Annexure IV

ADHUNIK POWER & NATURAL RESOURCES LIMITED

(FORMERLY ADHUNIK THERMAL ENERGY LIMITED)

"Gayatri Enclave", 1st Floor, K-Road, Bistupur, Jamshedpur-831001.
Phone : 91-657-6623400 / 6623401 • Fax : 91-657-6623404 / 6623433
e-mail : afeltd@bsnl.in • website : www.adhunikgroup.com

APNRL/EMC/DPS/MOEF /November 11

Date - 9th Nov 2011

To
The Regional Officer, (East)
Plot No A/3 Chandrasekharpur,
Bhubaneswar,
Orissa 751 023
Ph.No. 0674-2301213

Subject: Submission of Water Sustainability Report.
Reference: MoEF File no J 13012/8/2009- IA II (T) Dtd 9th May 2011.

Dear Sir,

Enclosed herewith please find Water Sustainability on Subarnarekha river status report &Expenditures details of the activities report CSR on compliance of stipulated conditions as per the requirements of MOEF for Coal based Thermal Power plant at Padampur for it's 4 x 270 MW as per referred file no under reference, along with the report for your ready reference.

Hope you would find the same in order.

Thanking You
Sincerely Yours'

For

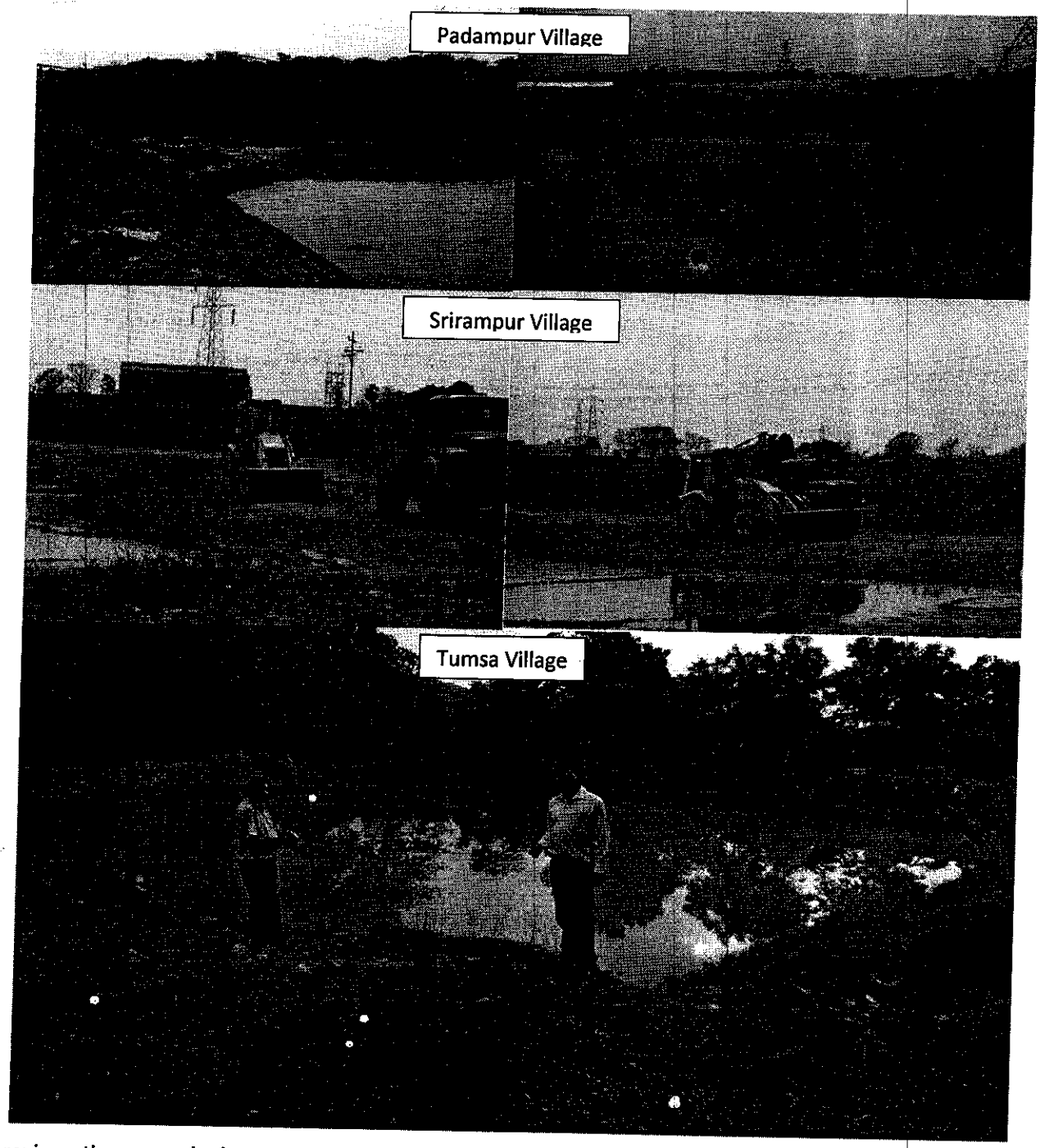
D.P Singh GM (EMC)
Adhunik Power & Natural Resources Ltd.
Jamshedpur.

PS Enclosed as above.

Received
PS to CCF /Asstan
SO, Min Envt. & Forests
Eastern Regional Office
Bhubaneswar-751023

Annexure V

Detailed status on existing de-generated water bodies and its regeneration plan: We have been generating ponds in our periphery villages to benefit the villagers as per their social need. In previous times, we had excavated a pond 60x40m at Padampur and renovated 3 ponds in villages Srirampur, Tumsa and Gidibera which all are being used by local people. Villagers are also initiating fishery farming in these pond and it helps in enhancing their livelihood also. As of now, there is no any pond on de-generating status in our vicinity.



Annexure VI

Adhunik Power & Natural Resources Limited, Padampur

SURFACE WATER SAMPLE ANALYSIS RESULTS FOR BADAHARIHARPUR POND

Sr. No	Parameters	Unit	October	November	December	January	February	March
			2016	2016	2016	2017	2017	2017
1	Colour	Hazen	<5	<5	<5	<5	<5	<5
2	Odour		Odourless	Odourless	Odourless	Odourless	Odourless	Odourless
3	pH	mg/l	7.2	7.3	7.2	7.3	7.6	7.2
4	Temperature		25.4	23.4	18.4	16.4	21.4	23.1
5	Oil & Grease	^0C	ND	ND	ND	ND	ND	ND
6	Electrical Conductivity	mg/l	389	456	423	432	366	423
7	Dissolved Oxygen	mg/l	6.1	6.4	5.5	5.6	5.4	5.6
8	BOD at 270C (3days)	mg/l	3.5	3.9	3.4	3.2	3.6	3.2
9	Total Coliforms	mg/l	Nil	Nil	Nil	Nil	Nil	Nil
10	Total Dissolve Solids	mg/l	188	194	145	145	161	168
11	Total Hardness as $CaCO_3$	mg/l	248.6	236	145.3	259.2	139.4	143.2
12	Chloride as Cl	mg/l	121.6	119.7	114.3	134.7	123.4	126.7
13	Sulphate as SO_4	mg/l	80.1	74.2	42.6	40.6	52.4	43.6
14	Nitrate as NO_3	mg/l	11.56	10.3	6.23	6.94	5.12	6.4
15	Free CO2	mg/l	1.8	1.3	1.5	1.2	1.2	1.6
16	Free NH3	mg/l	0.0148	0.0144	0.0123	0.0133	0.0124	0.0132
17	Fluoride as F	mg/l	0.0486	0.0451	0.0315	0.0327	0.0356	0.0326
18	Calcium Hardness	mg/l	55.7	52.4	46.7	49.3	41.5	40.3
19	Magnesium as Mg	mg/l	21.9	23.1	17.2	16.7	15.8	16.8
20	Copper as Cu	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
21	Iron (fe)	mg/l	0.211	0.231	0.123	0.134	0.145	0.139
22	Manganese (Mn)	mg/l	0.138	0.142	0.0102	0.0112	0.0105	0.0112
23	Zinc as Zn	mg/l	0.0112	0.011	<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	92	84	76	72	81	78

GROUND WATER MONITORING OF TUBE WELL OF VILLAGE PADAMPUR (UPSTREAM OF ASH POND) & VILLAGE PINDRABERA (DOWN STREAM OF ASH POND)-Oct 2016-March 2017

Parameters	Unit	Oct-16		Nov-16		Dec-16		Jan-17		Feb-17		Mar-17	
		Village Padampur	Village Pindrabera	Village Padampur	Village Pindrabera	Village Padampur	Village Pindrabera	Village Padampur	Village Pindrabera	Village Padampur	Village Pindrabera	Village Padampur	Village Pindrabera
olor	Hazen	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
dour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
aste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
urbidity	NTU	3.4	3.5	3.2	3.4	3.7	4.2	3.8	4.1	3.4	4.1	3.2	4.2
H	-	6.9	6.6	7.1	6.4	7.4	7.9	7.2	7.6	7.1	7.5	6.9	7.2
emperature	^{0}C	25.4	21.5	23.1	19.4	26.4	20.8	25.6	21.9	25.4	21.6	22.6	25.9
otal Hardness(aCo3)	Mg/l	228.5	201.4	219.4	231.9	231.8	214.5	198.3	188.6	211.6	216.9	215.3	221.9
on (Fe)	Mg/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
hlorides (Cl)	Mg/l	39.7	35.1	32.8	33.6	40.6	35.7	42.3	36.4	41.5	32.8	39.6	42.8
esidual Free hlorine	Mg/l	0.0059	0.00051	0.0051	0.00049	0.0036	0.0048	0.0032	0.0042	0.0033	0.0041	0.0034	0.0042
DS	Mg/l	300.1	188.4	312.4	197.6	245.9	231.4	265.4	236.4	256.3	216.7	246.9	223.8
ec conductivity		338.4	289.4	326.4	278.6	412.80	356.40	431.60	394.70	395.70	335.10	401.30	365.40
alcium (Ca)	Mg/l	52.41	60.12	51.69	66.43	59.4	51.7	52.4	61.8	47.8	53.4	45.6	50.6
agnesium(Mg)	Mg/l	16.45	12.55	15.67	12.33	18.9	12.7	16.4	11.9	16.44	15.01	15.6	15.3
opper (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
anganese(Mn)	Mg/l	0.0069	0.0052	0.0062	0.0053	0.0062	0.0044	0.0061	0.0043	0.0061	0.0042	0.0053	0.0041
ulfate (SO4)	Mg/l	42.51	33.22	41.51	36.47	42.12	33.89	41.65	33.12	41.23	36.42	40.23	32.61
otal Nitrate lO3)	Mg/l	16.54	13.84	15.62	12.77	16.47	14.62	15.69	13.78	15.94	15.41	16.22	14.89
uoride(F)	Mg/l	0.006	0.003	0.0062	0.0036	0.0067	0.0058	0.0061	0.0054	0.0039	0.0053	0.0036	0.0049
admium (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
anide(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
ead (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
nc(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
otal Chromium r)	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
senic (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
ercury(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
otal Alkalinity aCO3	Mg/l	198	136	194	135	168	142	171	145	163	139	171	146
idity	Mg/l	19	18	21	16	13	18	14	16	12	15	13	16
uminium (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
oron (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
odium (Na)	Mg/l	25.7	17.8	22.6	18.9	13.4	17.4	13.7	16.5	21.8	20.7	22.5	19.4
otassium (K)	Mg/l	2.1	1.31	2.2	1.96	2.1	1.8	2.2	1.8	2.4	1.6	2.1	1.8
otal Bacterial ount	Nos/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
Coli	Nos/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
enteritidis	Nos/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent

Annexure-VII

Annexure VIII

ADHUNIK POWER & NATURAL RESOURCES LIMITED

(FORMERLY ADHUNIK THERMAL ENERGY LIMITED)

"Gayatri Enclave", 1st Floor, K Road, Bistupur, Jamshedpur-831001.
Phone : 91-657-6623400 / 6623401 • Fax : 91-657-6623404 / 6623433
e-mail : atelto@bsnl.in • website : www.adhunikgroup.com

Date - 9th August 2011

APNRL/EMC/DPS/MOEF /Aug 11

To
The Regional Officer, (East)
Plot No A/3 Chandrasekharpur,
Bhubaneswar .
Orissa 751 023
Ph.No. 0674-2301213

Subject: Submission of Lean season data for compliance of stipulated conditions No.xii.
Reference: Moef File no J 13012/8/2009- IA .ii(T) Dtd 9th May 2011,

Dear sir,

Please find enclosed the, Stage discharge data of RIVER Subarnarekha for compliance of stipulated conditions of EC as per the requirements of MOEF for our Coal based Thermal Power plant at Padampur for it's 4 x 270 MW as per referred file no.

The discharge data shows that there is water available in river during lean season. The requirement shall be met through the river discharge / harvested rain water /plant storage and through recycling during lean season if required.

Hope you would find the same in order.

Thanking You
Sincerely Yours

D.P Singh GM (EMC)
Adhunik Power & Natural Resources Ltd.
Jamshedpur.

PS Enclosed CWC Data for reference..

Recd
19/8/11

PS to CCF (Central)
GOI, M/o Envt. & Forests
Eastern Regional Office
Bhubaneswar - 751023

CORPORATE OFFICE : 2/1A, Sarat Bose Road, 6th Floor, "LANDSDOWNE TOWER", Kolkata 700 020
Phone : +91-33-[illegible] • Fax : +91-33-2289 0285 • E-mail : info@adhunikgroup.com

WORKS : Village Padampur, Behind P.G.C.I. Substation, Konora Chowka Road, Sarakela Kharsawan [illegible], Jharkhand
Phone : [illegible] • E-mail : atelto@bsnl.in

Adhunik Power & Natural Resources Limited, Padampur

STACK EMISSION MONITORING REPORT

Sl.No.		UNIT-2		
	PARAMETERS	PM	SO2	NOX
	AS PER CONSENTED NORMS	50 mg/Nm3	ND	ND
1	Oct-16	35.4	356.8	165.7
2	Nov-16	32.9	326.7	188.4
3	Dec-16	35.4	286.4	166.7
4	Jan-17	34.8	312.7	171.6
5	Feb-17	S/D	S/D	S/D
6	Mar-17	35.9	465.8	168.7

* SO2 -mentioned in mg/Nm3
* NOx -mentioned in mg/Nm3

Annexure IX

Adhunik Power & Natural Resources Limited, Padampur

AMBIENT AIR QUALITY MONITORING REPORT

LOCATION→	GET Hostel				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/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
Oct-16	69.7	45.6	15.7	9.2	77.8	45.8	21.9	11.7	85.9	52.8	16.3	13.4
Nov-16	61.8	43.6	12.8	8.9	81.4	53.1	18.6	11.9	88.9	56.7	17.3	12.4
Dec-16	63.7	42.1	12.6	7.4	72.1	44.6	12.6	8.9	81.4	53.4	13.4	10.8
Jan-17	67.2	44.2	11.6	8.1	75.4	50.1	10.9	8.2	86.4	55.7	12.6	9.7
Feb-17	53.6	36.4	10.8	8.4	66.4	41.8	11.6	6.1	71.5	54.9	14.6	11.3
Mar-17	52.6	39.4	11.2	9.1	69.4	40.6	10.9	7.6	75.6	51.3	13.2	10.8

Annexure X

Annexure XI (A)

O/C

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/MOEF/FA/2015-16/15417

Date: 15th April 2017

To

The Regional Office(Eastern-Central Zone)

Ministry of Environment, Forest & Climate Change

Bunglow No A-2,Shyamali Colony, Ranchi, Jharkhand

Sub- Submission of Ash generation & Utilization for Unit I & Unit II (1 x 270 MW each) of M/s Adhunik Power & Natural Resources Limited, Village- Padampur, Dist-Saraikela-Kharswan, Jharkhand.

Ref: MoEF Fly Ash notification S.O. 2804(E), 3rd November 2009.

Dear Sir,

In line with compliance of above referred MoEF Fly Ash notification S.O. 2804(E), 3rd November 2009, Please find attached herewith Ash generation & Utilization for Unit I & Unit II (1 x 270 MW each) of M/s Adhunik Power & Natural Resources Limited, Village-Padampur, Dist-Saraikela-Kharswan, Jharkhand for the financial year 2016-17.

This is for your kind information & record please.

Thanking You

Your's faithfully

For Adhunik Power & Natural resources Limited

Received Mukeshyadav 28/4/17

17.04.17

Bhalchandra Nellikwar

(Plant Head)

Encl: As mentioned above

CC: 1. Dr. S.K. Paliwal, Scientist D, PCI-II, Central Pollution Control Board, New Delhi

2. Member Secretary, JSPCB, Ranchi

3. The Regional Officer, JSPCB, Jamshedpur

Fly Ash Notification S.O. 2804(E), 3rd November, 2009 – Statutory Compliance Report for the period 01.04.2016 to 31.03.2017

S. No.	Item	Reply
1	Name of Thermal Power Station	Adhunik Power & Natural Resources Ltd
2	Full address including Pin code	Vill- Padampur, Adityapur-Kandra Road, Dis- Sariekela-Kharswan
3	E-mail address	bnnellikwar@adhunikgroup.co.in
4	Name of the Nodal Officer (not below the rank of DGM / Dy. CE / or equivalent) dealing with ash/environment management and designation	Bhalchandra Nellikwar Plant Head
5	Telephone No.	7542023257
6	Fax No. Email:	
7	Capacity of the Thermal Power Station (MW)	2 x 270 MW
8	Details of Number of Units and capacity of each unit	1x 270 MW (Unit I) 1x 270MW (Unit II)
9	Coal / Lignite Consumption in 2016-2017 (Million Tonnes)	2247952 MT

A. Ash Generation in 2016-2017 (in tonnes).

10	Bottom Ash	79137.5
11	Fly Ash	655694
	Total A (10 and 11)	734831.5

B. Ash unutilised (in tonnes)

12	Ash Pond disposal	79137.5
13	Ash yard	0
14	Ash Dump	264762.02
	Total B (12 and 14)	343899.52

C. Ash utilization in 2016-2017 (in tonnes)

	Purpose for which ash is utilized	Target (as per action plan)	Actual			
			From ESP Dry Ash	From Pond Ash	From Bottom Ash	Total
15	Ash pond dyke rising	90000		70379.778		70379.778
16 *	Cement industry	90562	29700.0			29700.0
17	Land fill	451310	283670.8			283670.8
18	Own Brick Unit					
19 *	Outside brick Units other than brick kilns					
20 *	Brick Kilns					
21	Own ash based products (other than bricks)					
22	Ash based products	40000	7181.75			7181.75

	(outside)					
23 *	Road and Flyover Embankments					
24 *	Back filling of mines					
25	Agriculture					
26	Ready mix concrete					
27	Asbestos					
28 *	Exports					
29	Others (please specify)					
	Total C (15 to 29)	671872	320551.75	70379.778		390932.32

D. Reasons for variation from the target

1. Due to low carbon content in ash, Brick manufacturers not willing to use ash.
2. No cement industry in vicinity areas.

E. Remedial Measures taken

1. Installation of own brick plant
2. Explore other options to dispose ash in mines

F. Quantity in ash pond

30.	Estimated quantity of Pond ash in active ash pond (pond in use) as on 31.03.2017 (million tonnes)	3.35

G. Ash Pond Details

31	Total area ear marked for ash ponds (ha)	Forest Area	Non Forest Area	Total
32	Ash ponds already filled dup and reclaimed (ha)		12.56	
33	Ash ponds already filled up but yet to be reclaimed (ha)		5.18	
34	Ash ponds in use (ha) (Active ash ponds)		10.56	
35	Area earmarked for ash ponds but ash ponds yet to be constructed (ha)		97.52	

H. Dry ash collection facilities

36	Dry fly ash collection facility available	Ash Silo (02 no) 1600 MT each
37	If yes, how many units	02

I. Dry fly ash storage

38	Daily Ash Generation (TPD)	Capacity of storage as on 31.3.2017 (tones)	Capacity proposed if any in 2017-2018 (tonnes)
	2812	3200	NA

J. Capital Expenditure (Rs. Lakhs)

	Item	Item Expenditure in 2016-2017 (Rs. Lakhs)	Budgetary provision in 2016-2017 (tonnes)
39	Bottom Ash collection facility	109854953.3	NA
40	Dry fly ash storage	91095842.72	NA

K. Dispute Settlement Committee

41	No. of meetings held in 2016-2017	If no meetings were held, reason for the same
	NA	No dispute raised

L. Provision regarding supply to the brick kilns

42	Whether the Thermal Power Station is maintaining month-wise records of ash made available to each brick kiln	NA		
43	If yes, how many brick kilns have been supplied with fly ash			
	Mode of transport of Ash : Truck / Trailer / Closed Container / Covered with Tarpaulin / Open	44	Dry ash	Covered with tarpaulin
		45	Wet Ash	Covered with tarpaulin

M. Promotional Measures

		No. of meetings / workshops exhibition held during 2016-2017	Amount spent in 2016-2017 (Rs. Lakhs)	Outlay for 2016-2017 (RS. Lakhs)
46	Public Awareness Campaign	NA		
47	Exhibitions	NA		
48	Seminars / Workshops	02		
49	Advertisement in Newspapers	02		
50	TV / Radio Advertisements	NA		
51	TV / Radio Advertisements	NA		
	Total M (46 to 51)			

52. Administrative Measure taken

S.No.	Administrative Measure	Outcome
(i)	Meeting with brick manufacturers	Some brick manufacturers agreed to use fly ash
(ii)	Meeting with State Government / Agencies	
(iii)	Any other measure (please specify)	We are supplying fly ash to N-E cement industries through railways racks

Signature of the Plant Head

Name: Bhalchandra Nellikoor
Designation: (Plant head)
Date: 15/04/17

Annexure XII

YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited By | National Accreditation Board for Testing & Calibration Laboratory (NABL) (T 2982, T-2918)
Jharkhand State Pollution Control Board (JSPCB) (B-1874)

Issued to : -	Sample Code: - 160829-BA-E01
M/sADHUNIK POWER & NATURAL RESOURCES LIMITED Vill: Padampur, Behind P.G.C.I.L. Substation,Jamshedpur-832105, Jharkhand	Report ID : - YBAEEL/JSR/16-08-29/BA/01 Date of Issue: - 15.09.16 Reference : - YBAEEL/WA/LJC/Aug-16
Sample Particulars	**Details of Sampling**
Sample Name/Description: - Bottom Ash Sample Quantity : - 10 kg Sample pkg. Condition : - Sealed in plastic bottle	Date of sampling : - 28-08-2016 Sample Received Date: -29/08/2016 Sample collected by: -Mukesh Singh & Team Sampling Location: -Bottom Ash Hopper (Unit I)

Test Result

Test started on: - 30th August 2016 | Test completed on :- 13th September 2016

Sl. No.	Tested Parameter	Unit	Results
1.	Arsenic	ppm	< 0.01
2.	Mercury	ppm	< 0.01
3.	Chromium	ppm	0.03
4.	Lead	ppm	0.07
5.	Antimony	ppm	< 0.01
6.	Beryllium	ppm	< 0.01
7.	Cadmium	ppm	0.03
8.	Copper	ppm	0.05
9.	Nickel	ppm	0.04
10.	Selenium	ppm	0.01
11.	Silver	ppm	< 0.01
12.	Tin	ppm	< 0.01
13.	Zinc	ppm	0.1
14.	Unborn carbon	%	1.4

*****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.

15/9/16

Tested by
(Bajrang Kumar)
Analyst

Verified by
(Sunil Singh)
Authorised Signatory

15/9/16

Issued by
(Umesh Das)
Technical Manager

Technical Manager
Yugantar Bharati Analytical & Environmental Engineering Laboratory

Yugantar Bharati Analytical & Environmental Engineering Laboratory

Annexure XIII

YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited By | National Accreditation Board for Testing & Calibration Laboratory (NABL) (T 2982, T-2918)
Jharkhand State Pollution Control Board (JSPCB) (B-1874)

Test Report

Issued to : - **M/s ADHUNIK POWER & NATURAL RESOURCES LIMITED** **Vill: Padampur, Behind P.G.C.I.L Substation, Jamshedpur-832105, Jharkhand**	**Sample Code: - 160830-WW-E03** **Report ID : - YBAEEL/JSR/16-08-029/WW/03** **Date of Issue: 15.09.16** **Reference : - YBAEEL/WA/L/C/Aug-16/09**
Sample Particulars	**Details of Sampling**
Sample Name/Description: - Waste Water **Sample Quantity : - One litre** **Sample pkg. Condition : - Sealed in plastic bottle**	**Date of sampling : - 28-08-2016** **Sample Received Date: -29/08/2016** **Sampling Protocol: - YBAEEL/SP/01/00** **Sample collected by: -Mr.Mukesh Singh & Team** **Sampling Location: -Ash pond outlet**

Test started on: -	30th August 2016		Test completed on :-	10th September 2016	
Sl. No.	**Tested Parameter**	**Unit**	**Results**	**Method (APHA 22ND Edition 2012)**	**Permissible Limit**
1.	pH	---	7.75	4500 H^+ B	5.5 -9
2.	Temperature	°c	25.9	2550 B	N/A
3.	Total Suspended solid	mg/l	23	2540 C	100
4.	Oil & Grease	mg/l	<4	5520 B	10
5.	Mercury	mg/l	ND (DL 0.001)	3112 B	N/A
6.	Arsenic	mg/l	ND (DL 0.003)	3114 B	N/A
7.	Total Chromium	mg/l	ND (DL 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 IS 2490: 1974.

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.

15/9/16
Tested by
(Bajrang Kumar)
Analyst

Verified by
(Sunil Singh)
Authorised Signatory

16/9/16
Issued by
(UmeshDas)
Technical Manager

Technical Manager
Yugantar Bharati Analytical & Environmental Engineering Laboratory

Yugantar Bharati Analytical & Environmental Engineering Laboratory

Annexure XIV (13)

K.C. SHARMA & CO.

ISO 9001, ISO 17025 : 2005 (NABL) Accredited,
EIC Approved, Inspection and Testing House.

Shop No. 2, Om Shree Labh CHS.,
Nr. Veer Savarkar Garden Gate No. 2,
Tps Road, Opp. Bhatiya Holl, Borivali (W),
Mumbai - 400 092. India

Mob: +91 88799 70014 / 88799 70014
Email: opsmum@kcsgroup.co
Web: www.kcsgroup.co

TEST REPORT

CERT.No. **KCSC/COMM/MUM/296/2016-17** DATE : **06.02.2017**

1. Name of the Customer : M/S. Adhunik Power and Natural Resources Ltd
2. Description of the Sample : Coal
3. Period of Sampling : January, 2017

QUALITY ANALYSIS REPORT

DATE	SOURCE	DO/RR	ARB					
			TM%	ASH%	VM%	FC%	GCV Kcal/Kg	AVG GCV Kcal/Kg
26-JAN-17	Others	RSC/01	11.17	37.79	21.08	29.96	3340	3340

DATE	SOURCE	DO/RR	ARB					
			TM%	ASH%	VM%	FC%	GCV Kcal/Kg	AVG GCV Kcal/Kg
05-JAN-17	RAIL	462000041	2.54	40.89	17.31	39.26	4053	3796
13-JAN-17	RAIL	462000030	9.96	37.87	20.80	31.37	3615	
21-JAN-17	RAIL	462000036	10.89	35.58	21.36	32.18	3793	
26-JAN-17	RAIL	462000023	10.79	36.21	20.42	32.58	3721	

K.C. SHARMA & CO. SURVEYORS

K.C. SHARMA & CO.

ISO 9001, ISO 17025 : 2005 (NABL) Accredited,
EIC Approved, Inspection and Testing House.

Shop No. 2, Om Shree Labh CHS.,
Nr. Veer Savarkar Garden Gate No. 2,
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Web: www.kcsgroup.co

DATE	SOURCE	DO/RR	ARB					
			TM%	ASH%	VM%	FC%	GCV Kcal/Kg	AVG GCV Kcal/Kg
05-JAN-17	Ashoka	568	10.84	38.04	19.94	31.18	3497	3621
13-JAN-17	Ashoka	568	12.76	32.82	19.28	35.14	3842	
13-JAN-17	Ashoka	461	9.89	38.59	20.90	30.62	3612	
13-JAN-17	Ashoka	324	9.86	39.42	20.23	30.49	3482	
21-JAN-17	Ashoka	568	10.43	37.84	18.88	32.85	3697	
21-JAN-17	Ashoka	461	9.88	37.35	20.73	32.04	3709	
26-JAN-17	Ashoka	568	9.57	37.37	19.61	33.45	3676	
26-JAN-17	Ashoka	461	9.89	39.41	20.13	30.58	3405	
26-JAN-17	Ashoka	324	9.16	39.02	19.72	32.10	3674	

DATE	SOURCE	DO/RR	ARB					
			TM%	ASH%	VM%	FC%	GCV Kcal/Kg	AVG GCV Kcal/Kg
05-JAN-17	Magadh	135	13.39	37.01	19.33	30.28	3568	3488
13-JAN-17	Magadh	135	10.93	37.92	20.31	30.84	3560	
21-JAN-17	Magadh	135	11.35	37.94	20.03	30.68	3530	
26-JAN-17	Magadh	158	11.64	39.68	19.07	29.62	3293	

K.C. SHARMA & CO. SURVEYORS

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Web: www.kcsgroup.co

DATE	SOURCE	DO/RR	ARB					
			TM%	ASH%	VM%	FC%	GCV Kcal/Kg	AVG GCV Kcal/Kg
05-JAN-17	Amrapali	53	13.98	40.25	19.21	26.56	3279	
13-JAN-17	Amrapali	72	12.56	36.96	19.38	31.10	3589	
13-JAN-17	Amrapali	71	12.55	40.33	19.13	27.99	3315	
13-JAN-17	Amrapali	53	12.13	40.98	19.37	27.53	3288	
21-JAN-17	Amrapali	72	14.93	35.29	18.89	30.88	3682	3470
21-JAN-17	Amrapali	71	13.82	37.60	19.60	28.98	3503	
21-JAN-17	Amrapali	53	14.06	38.50	19.23	28.21	3496	
26-JAN-17	Amrapali	72	12.32	37.68	19.67	30.34	3493	
26-JAN-17	Amrapali	71	12.77	36.42	20.18	30.63	3589	

For K. C. SHARMA & Co. (Issued at Discharge Port)

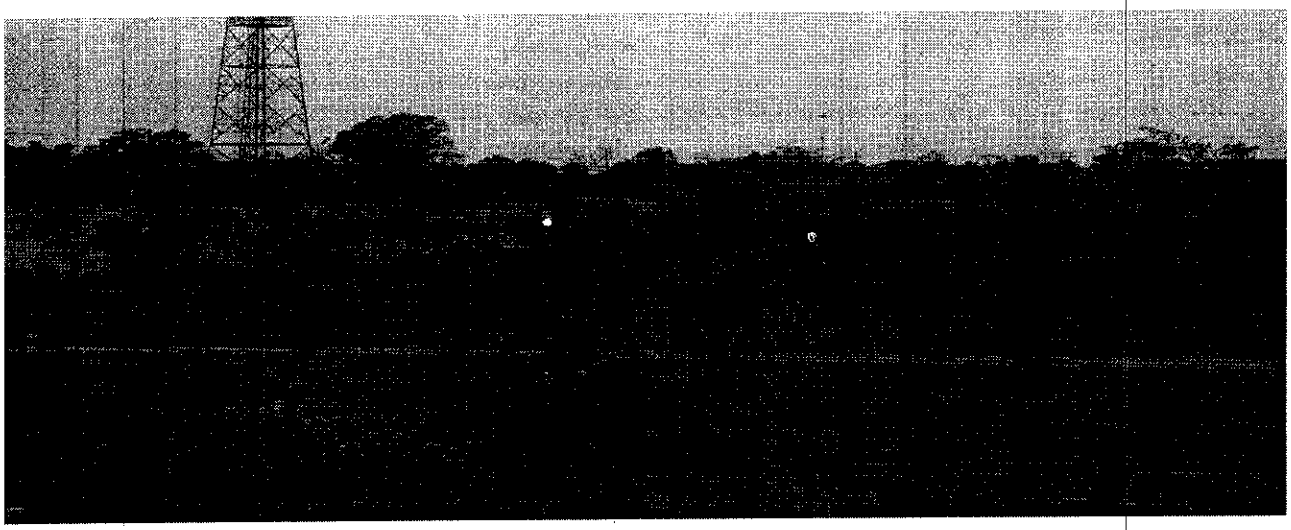
K. C. SHARMA & CO. SURVEYORS

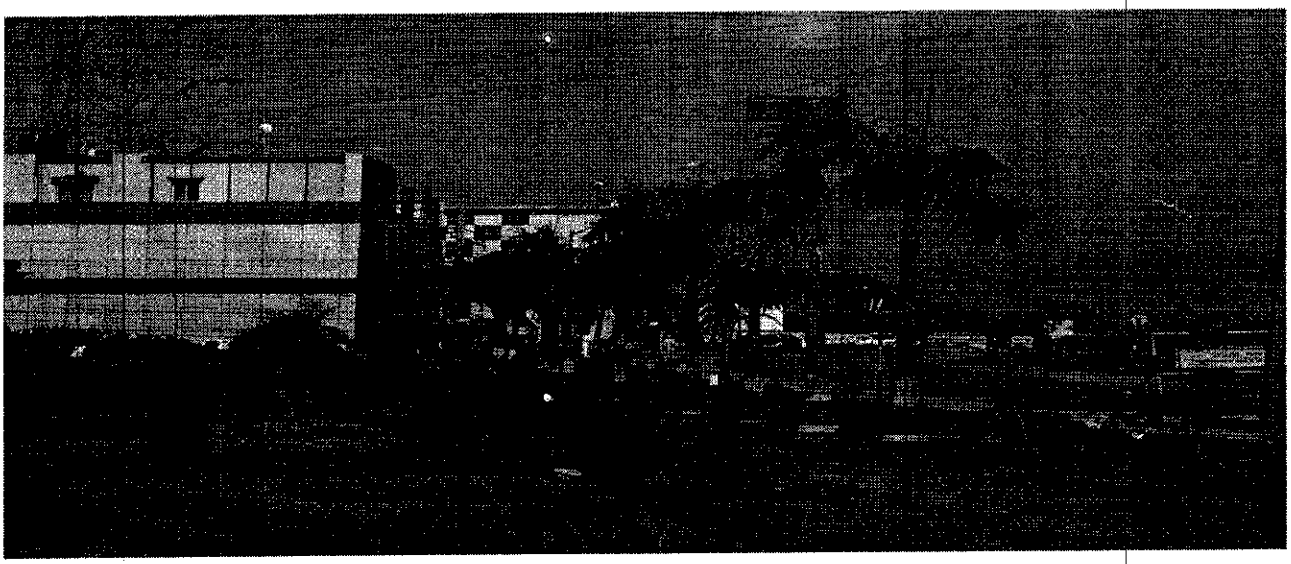
AUTHORIZED SIGNATORY

Annexure XV

Green Belt Development

GREEN BELT DEVELOPMENT		
01	Afforestation	A thick green belt of adequate width is being developed. 51632 nos.(Area covered-42.6 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. Survival rate of sapling is 84.2%.
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





Annexure XVI

Report on Corporate Social Responsibility Initiatives

Month: October 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 October 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, Baraharihарpur, 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 6920 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.Ambulance services availed by villagers	04	06	10	-	-	-	4	2	-
	2. Safe drinking water under project Amrit Dhara	House hold-949		5694	-	2	-	5	4	1.1
	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	0	0	1	1	1	.05
EDUCATION	1. Project CYBER VILLAGE	59	41	100	-	3	-	17	3	-
	2. Regular Bus facilities for Girls student	-	40	40	-	1	-	6	2	-
WOMEN EMPOWERMENT & Livelihood	1. SHG group meeting	-	98	98	-	1	-	7	4	-
	2. Spice production	-	15	15	-	-	1	1	1	-
	3.Vermin Compost	-	11	11	-	-	1	1	1	-
	4. Murhri packaging	-	15	15	-	-	1	1	1	-
	5. Phenyl making		14	14		-	1	1	1	-
	6. Agarbatti Making		14	14		-	1	1	1	-
	7. Tailoring Center	-	19	19	-	1	-	1	1	-
SPORTS & Culture	1. Kho-Kho Training	4	6	10	-	1	-	3	2	-
Others Initiatives	1. Training on Phenyl making - 17.10.2016	SHG		25	-	1		2	2	
	2. Agarbatti making-23.10.2016	SHG		20		1		1	1	
	3.Swachhta Aviyan(3.10.2016-10.10.2016)	Drive		500	5			7	2	
Total		-	-	6920	-	-	-	18	7	-

(i) 18 villages: Srirampur, Pindrabera, Baraharihарpur, Chotahariharpur, Padampur, Bikanipur, Ghutbera, Ramjivanpur, Barkatand, Dhatkidih, Rapcha, Ramchandrapur, Shankerpur, Upperbera, Gamharia ,Kandra, Virbas, Chota Gamharia, Virdhavajpur **(ii) 7 Gram Panchayats:** 1. Rapcha, 2. Dugdha, 3. Kandra 4 Kalikapu 5 Chamaur 6. Chota Gamharia, 7. Birbas The ***detailed social performance report*** on above development activities is attached as **Annexure-1.**

Project Highlights for the month of October 2016

1. **Ambulance Services**: 24 X 7 ambulance facility has been providing to the villagers of peripheral village for better treatment. 10 Nos. of villagers' availed ambulance facilitates during the month.

2. **Occupational Health Center -APNRL, Padampur**: A total of 165 village patients including 103 males and 62 females underwent health check-ups and received free medical treatment and medicines 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 Gamharia Block, Saraikela who are our fellow citizens. Total members are 942 and consumed 161869 liters of safe drinking water in the month of October2016.

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. **Training on Phenyl Making:** Adhunik Power & Natural Resources Limited (APNRL), Padampur arrange to provide a one day Training on Phenyl Making training on 17th October 2016 at Village Srirampur of Dugdha Gram Panchayat for Self Help Group (SHG) members to promote sustainable livelihood for the poor and vulnerable groups such as village women. This initiative has been taken by APNRL under its Corporate Social Responsibility towards capacity building and livelihood promotion. Approximately 25 women had participated from Two Self Help Group (SHG) namely Mansha Devi SHG & Jagriti Mahila SHG.

6. **Agarbatti Making:** The training was conducted for 2 day i.e. from 21th October 2016 to 22th October 2016 by Nav Nirman Sanstha, Jamshedpur. Around 20 SHG members of Two SHG's namely **JAGRITI MAHILA SMAMITY, SRIRAMPUR** and **JAI MAA PAURI MAHILA SAMITY, KANDRA** participated in this training program

7. **Awareness drive for Cleanliness 2016:** Rainy season is going on and most of the diarrhea cases found at village levels in these seasons only. We know that main cause of diarrhea is polluted water. Every year several diarrhea cases found at village level. Based on the satiation of villages the CSR Dept. of APNRL organised the cleanliness drive in the villages is starting from village Barahariharpur of Dugdha Gram Panchayat on the occasion of the birth anniversary of Father of the Nation Mahatma Gandhi i.e. 2 October which will be continued in its other villages as well as in Rapcha Gram Panchayat too with objective of cleanliness and control of the diarrhea, malaria, water borne etc.

Report on Corporate Social Responsibility Initiatives

Month: November 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 November 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, Baraharihariharpur, 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 6482 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.Ambulance services availed by villagers	2	6	7	-	-	-	5	2	-
	2. APNRL dispensary, Padampur	37	18	55			1	4	2	
	3. Safe drinking water under project Amrit Dhara	House hold-950		5700	-	2	-	5	4	.84
	4. Supply of clean & safe water at govt. school, Badahariharpur	45	40	85	1	-		1	1	.01
	5. Drinking Water Supply through tankers	House hold-50		250	0	0	1	1	1	.05
EDUCATION	1. Project CYBER VILLAGE	59	41	100	-	3	-	17	3	-
	2. Regular Bus facilities for Girls student	-	40	40	-	1	-	6	2	-
WOMEN EMPOWERMENT & Livelihood	1. SHG group meeting	-	97	97	-	1	-	7	4	-
	2. Spice production	-	15	15	-	-	1	1	1	-
	3.Vermin Compost	-	11	11	-	-	1	1	1	-
	4. Murhri packaging	-	15	15	-	-	1	1	1	-
	5. Phenyl making		14	14		-	1	1	1	-
	6. Agarbatti Making		14	14		-	1	1	1	-
	7. Tailoring Center	-	19	19	-	1	-	1	1	-
SPORTS & Culture	1. Kho-Kho Training	4	6	10	-	1	-	3	2	-
Others Initiatives	Certificate distribution at Cyber Center ,Badahariharpur	Students		50	-	1		8	3	
Total		-	-	6482	-	-	-	18	7	-

(i) 18 villages: Srirampur, Pindrabera, Baraharihariharpur, Chotahariharpur, Padampur, Bikanipur, Ghutbera, Ramjivanpur, Barkatand, Dhatkidih, Rapcha, Ramchandrapur, Shankerpur, Upperbera, Gamharia ,Kandra, Virbas, Chota Gamharia, Virdhavajpur **(ii) 7 Gram Panchayats:** 1. Rapcha, 2. Dugdha, 3. Kandra 4 Kalikapu 5 Chamaur 6. Chota Gamharia, 7. Birbas The ***detailed social performance report*** on above development activities is attached as **Annexure-1.**

Project Highlights for the month of November 2016

1. **Ambulance Services**: 24 X 7 ambulance facility has been providing to the villagers of peripheral village for better treatment. 7 Nos. of villagers' availed ambulance facilitates during the month.

2. **Occupational Health Center -APNRL, Padampur**: A total of 55 village patients including 37 males and 18 females underwent health check-ups and received free medical treatment and medicines 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 Gamharia Block, Saraikela who are our fellow citizens. Total members are 950 and consumed 84370 liters of safe drinking water in the month of November2016.

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 facility. Special vehicle provided to pre-board matric examinee for female candidates. Total 12 female candidates availed the facility.

5. **Phenyl Making:** 14 - members of Mansa Devi Self-help Group of Srirampur initiated in Phenyl making and selling. This initiative has been taken by APNRL under its Corporate Social Responsibility towards capacity building and livelihood promotion.

6. **Agarbatti Making:** 14 - members of Jagriti Mahila Samiti of Srirampur village initiated in Agarabatti making, packaging and selling. This has helped them in increasing corpus fund for their group. This initiative has been taken by APNRL under its Corporate Social Responsibility towards capacity building and livelihood promotion

7. **Certificates Distribution Function:** On 29th November 2016, we organized Certificate Distribution Function for the 6th Batch students of Cyber Village Project at Community Center, Badahariharpur

Report on Corporate Social Responsibility Initiatives

Month: December 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 December 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, Baraharihарpur, Chotaharihарpur, 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 6462 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.Ambulance services availed by villagers	9	8	17	-	-	-	5	2	-
	2. APNRL dispensary, Padampur	84	53	137			1	4	2	
	3. Safe drinking water under project Amrit Dhara	House hold-951		5706	-	2	-	5	4	.84
	4. Supply of clean & safe water at govt. school, Badahariharpur	45	40	85	1	-		1	1	.01
EDUCATION	1. Project CYBER VILLAGE	40	28	68	-	3	-	17	3	-
	2. Regular Bus facilities for Girls student	-	40	40	-	1	-	6	2	-
WOMEN EMPOWERMENT & Livelihood	1. SHG group meeting	-	98	98	-	1	-	7	4	-
	2. Spice production	-	15	15	-	-	1	1	1	-
	3.Vermin Compost	-	11	11	-	-	1	1	1	-
	4. Murhri packaging	-	15	15	-	-	1	1	1	-
	5. Phenyl making		14	14		-	1	1	1	-
	6. Agarbatti Making		14	14		-	1	1	1	-
SPORTS & Culture	1. Kho-Kho Training	4	6	10	-	1	-	3	2	-
	Inter village Cricket Tournament	8-Team		100	1			8	4	-
	Inter house girls carom Tournament	6- team		12	1			4	3	-
Others Initiatives	Blood donation Camp-21.12.2016	Villagers (63 unit collected)		120	1	-		5	3	-
Total		-	-	6462	-	-	-	18	7	-

(i) 18 villages: Srirampur, Pindrabera, Baraharihарpur, Chotaharihарpur, Padampur, Bikanipur, Ghutbera, Ramjivanpur, Barkatand, Dhatkidih, Rapcha, Ramchandrapur, Shankerpur, Upperbera, Gamharia ,Kandra, Virbas, Chota Gamharia, Virdhavajpur **(ii) 7 Gram Panchayats:** 1. Rapcha, 2. Dugdha, 3. Kandra 4 Kalikapu 5 Chamaur 6. Chota Gamharia, 7. Birbas The ***detailed social performance report*** on above development activities is attached as **Annexure-1.**

Project Highlights for the month of December 2016

1. **Ambulance Services:** 24 X 7 ambulance facility has been providing to the villagers of peripheral village for better treatment. 17 Nos. of villagers' availed ambulance facilitates during the month.

2. **Occupational Health Center -APNRL, Padampur:** A total of 137 village patients including 84 males and 53 females underwent health check-ups and received free medical treatment and medicines 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 Gamharia Block, Saraikela who are our fellow citizens. Total members are 951 and consumed 84370 liters of safe drinking water in the month of December2016.

4. **Computer Literacy Center:** Project Cyber village is running successfully in Rapcha & Dugdh G.P premises in a Public-Privet-Partnership mode where 68 students of periphery villages are learning computer.

5. **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 facility. Special vehicle provided to pre-board matric examinee for female candidates. Total 12 female candidates availed the facility.

6. **Phenyl Making:** 14 - members of Mansa Devi Self-help Group of Srirampur initiated in Phenyl making and selling. This initiative has been taken by APNRL under its Corporate Social Responsibility towards capacity building and livelihood promotion.

7. **Agarbatti Making:** 14 - members of Jagriti Mahila Samiti of Srirampur village initiated in Agarabatti making, packaging and selling. This has helped them in increasing corpus fund for their group. This initiative has been taken by APNRL under its Corporate Social Responsibility towards capacity building and livelihood promotion.

8. **Blood Donation Camp:** Corporate Social Responsibility Department of APNRL was organized a Blood Donation Camp at the APNRL Dispensary, Padampur in association with Jamshedpur Blood Bank on 21st December 2016 from 10:00 am to 4:00 pm as a social contribution towards the society. Total 63 units collected.

Report on Corporate Social Responsibility Initiatives

Month: January 2017

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 January 2017. 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 7080 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.Ambulance services availed by villagers	8	7	15	-	-	-	3	2	-
	2. APNRL dispensary, Padampur	64	24	88			1	4	2	
	3. Safe drinking water under project Amrit Dhara	House hold-954		5724	-	2	-	5	4	.87
	4. Supply of clean & safe water at govt. school, Badahariharpur	45	40	85	1	-		1	1	.01
EDUCATION	1. Project CYBER VILLAGE	40	28	68	-	3	-	17	3	-
	2. Regular Bus facilities for Girls student	-	40	40	-	1	-	6	2	-
WOMEN EMPOWERMENT & Livelihood	1. SHG group meeting	-	81	81	-	1	-	7	4	-
	2. Spice production	-	15	15	-	-	1	1	1	-
	3.Vermin Compost	-	11	11	-	-	1	1	1	-
	4. Murhri packaging	-	15	15	-	-	1	1	1	-
	5. Phenyl making		14	14		-	1	1	1	-
	6. Agarbatti Making		14	14		-	1	1	1	-
SPORTS & Culture	1. Kho-Kho Training	4	6	10	-	1	-	3	2	-
	2.Sports and Culture program, Badahariharpur(Football)	52-Team(B+G)		800	1			15	6	-
Others Initiatives	Mahila Sammelan-cum-Exhibition	women		100	1	-		5	3	-
Total		-	-	7080	-	-	-	18	7	-

(i) 18 villages: Srirampur, Pindrabera, Barahariharpur, Chotahariharpur, Padampur, Bikanipur, Ghutbera, Ramjivanpur, Barkatand, Dhatkidih, Rapcha, Ramchandrapur, Shankerpur, Upperbera, Gamharia ,Kandra, Virbas, Chota Gamharia, Virdhavajpur **(ii) 7 Gram Panchayats:** 1. Rapcha, 2. Dugdha, 3. Kandra 4 Kalikapu 5 Chamaur 6. Chota Gamharia, 7. Birbas The ***detailed social performance report*** on above development activities is attached as **Annexure-1.**

Project Highlights for the month of January 2017

1. **Ambulance Services**: 24 X 7 ambulance facility has been providing to the villagers of peripheral village for better treatment. 15 Nos. of villagers' availed ambulance facilitates during the month.

2. **Occupational Health Center -APNRL, Padampur**: A total of 88 village patients including 64 males and 24 females underwent health check-ups and received free medical treatment and medicines 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 Gamharia Block, Saraikela who are our fellow citizens. Total members are 954 and consumed 87030 liters of safe drinking water in the month of January'2017.

4. **Computer Literacy Center**: Project Cyber village is running successfully in Rapcha & Dugdh G.P premises in a Public-Privet-Partnership mode where 68 students of periphery villages are learning computer.

5. **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 facility.

6. **Phenyl Making:** 14 - members of Mansa Devi Self-help Group of Srirampur initiated in Phenyl making and selling. This initiative has been taken by APNRL under its Corporate Social Responsibility towards capacity building and livelihood promotion.

7. **Agarbatti Making:** 14 - members of Jagriti Mahila Samiti of Srirampur village initiated in Agarabatti making, packaging and selling. This has helped them in increasing corpus fund for their group. This initiative has been taken by APNRL under its Corporate Social Responsibility towards capacity building and livelihood promotion.

8. **Mahila Sammelan cum exhibition**: A Mahila Sammelan-cum-Exhibition of SHG products organized on 19th January 2017 under company's Corporate Social Responsibility with support of Nav Nirman Sanstha, Jamshedpur at Community Hall, Badahriharpur. Total 6 SHGs exhibited their product.

Report on Corporate Social Responsibility Initiatives

Month: February 2017

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 February2017. 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, Baraharihariharpur, 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 6634 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.Ambulance services availed by villagers	5	21	26	-	-	-	5	2	-
	2. APNRL dispensary, Padampur	57	55	112			1	4	2	
	3. Safe drinking water under project Amrit Dhara	House hold-957		5742	-	2	-	5	4	.87
	4. Supply of clean & safe water at govt. school, Badahariharpur	45	40	85	1	-		1	1	.01
EDUCATION	1. Project CYBER VILLAGE	37	20	57	-	3	-	17	3	-
	2. Regular Bus facilities for Girls student	-	40	40	-	1	-	6	2	-
	3. Bus facilities for Matric student	12	32	44		1		5	2	
WOMEN EMPOWERMENT & Livelihood	1. SHG group meeting	-	81	81	-	1	-	7	4	-
	2. Spice production	-	15	15	-	-	1	1	1	-
	3.Vermin Compost	-	11	11	-	-	1	1	1	-
	4. Murhri packaging	-	15	15	-	-	1	1	1	-
	5. Phenyl making		14	14		-	1	1	1	-
	6. Agarbatti Making		14	14		-	1	1	1	-
	7.Training on book keeping		30	30			1	4	2	
SPORTS & Culture	1. Kho-Kho Training	4	6	10	-	1	-	3	2	-
	2.Sports and Culture program, Rapcha	youths		150	1			15	6	-
Others Initiatives	1.Training on Detergent power	women		15	1	-		1	1	-
	2.Dental Check-up Camp	Villagers & School Students		173						
Total		-	-	6634	-	-	-	18	7	-

(i) 18 villages: Srirampur, Pindrabera, Baraharihariharpur, Chotahariharpur, Padampur, Bikanipur, Ghutbera, Ramjivanpur, Barkatand, Dhatkidih, Rapcha, Ramchandrapur, Shankerpur, Upperbera, Gamharia ,Kandra, Virbas, Chota Gamharia, Virdhavajpur **(ii) 7 Gram Panchayats:** 1. Rapcha, 2. Dugdha, 3. Kandra 4 Kalikapu 5 Chamaur 6. Chota Gamharia, 7. Birbas The ***detailed social performance report*** on above development activities is attached as

Annexure-1.

Project Highlights for the month of February2017

1. **Ambulance Services**: 24 X 7 ambulance facility has been providing to the villagers of peripheral village for better treatment. 26 Nos. of villagers' availed ambulance facilitates during the month.

2. **Occupational Health Center -APNRL, Padampur**: A total of 112 village patients including 57 males and 55 females underwent health check-ups and received free medical treatment and medicines 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 Gamharia Block, Saraikela who are our fellow citizens. Total members are 957 and consumed 87030 liters of safe drinking water in the month of Febuary'2017.

4. **Computer Literacy Center**: Project Cyber village is running successfully in Rapcha & Dugdh G.P premises in a Public-Privet-Partnership mode where 68 students of periphery villages are learning computer.

5. **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 facility. Bus also provided to matric examinee of peripheral village of Srirampur, Badahariharpur, Bikanipur, Padampur & Pindrabera. About 50 candidates availed the facility.

6. **Phenyl Making:** 14 - members of Mansa Devi Self-help Group of Srirampur initiated in Phenyl making and selling. This initiative has been taken by APNRL under its Corporate Social Responsibility towards capacity building and livelihood promotion.

7. **Agarbatti Making:** 14 - members of Jagriti Mahila Samiti of Srirampur village initiated in Agarabatti making, packaging and selling. This has helped them in increasing corpus fund for their group. This initiative has been taken by APNRL under its Corporate Social Responsibility towards capacity building and livelihood promotion.

8. **Training on Detergent Powder Making**: APNRL Conducted 1- day training program on **"Detergent Powder Making"** for members of the SHG (Johar Jaher Ayo Mahila Samiti, Padampur) on 8.2.2017 at Community Centre, Padampur. This initiative has been taken by APNRL under its Corporate Social Responsibility towards capacity building and livelihood promotion.

9. **Dental Check-up camp**: Under Corporate Social Responsibility of the company we conducted a Dental Check-up & awareness camp on 28.2.2017 for the Villagers & School children of the following three Schools with the support of Education Department Seraikela and Awadh Dental College and Hospital, Jamshedpur at Community Center, Badahariharpur 1. Primary school, 2. Srirampur, Middle School Badahariharpur & 3. Middle School, Padampur.

Report on Corporate Social Responsibility Initiatives

Month: March 2017

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 March2017. 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, Baraharihарpur, Chotaharihарpur, 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 6806 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.Ambulance services availed by villagers	6	8	14	-	-	-	5	2	-
	2. APNRL dispensary, Padampur	19	23	42			1	4	2	
	3. Safe drinking water under project Amrit Dhara	House hold-958		5748	-	2	-	5	4	1.06
	4. Supply of clean & safe drinking water at govt. school, Badahariharpur	45	40	85	1	-		1	1	.01
EDUCATION	1. Project CYBER VILLAGE	37	20	57	-	3	-	17	3	-
	2. Regular Bus facilities for college Girls student	-	40	40	-	1	-	6	2	-
WOMEN EMPOWERMENT & Livelihood	1. SHG group meeting	-	81	81	-	1	-	7	4	-
	2. Spice production	-	15	15	-	-	1	1	1	-
	3.Vermin Compost	-	11	11	-	-	1	1	1	-
	4. Murhri packaging	-	15	15	-	-	1	1	1	-
	5. Phenyl making		14	14		-	1	1	1	-
	6. Agarbatti Making		14	14		-	1	1	1	-
	7.Training on book keeping		30	30			1	4	2	
SPORTS & Culture	1. Kho-Kho Training	4	6	10	-	1	-	3	2	-
	2. Sarahul Puja, Padampur	villagers		600	1			15	6	-
Others Initiatives	1. District level CSR review meeting-15.3.2017	Co. Representatives		30	1	-		1	1	-
Total		-	-	6806	-	-	-	18	7	-

(i) 18 villages: Srirampur, Pindrabera, Baraharihарpur, Chotaharihарpur, Padampur, Bikanipur, Ghutbera, Ramjivanpur, Barkatand, Dhatkidih, Rapcha, Ramchandrapur, Shankerpur, Upperbera, Gamharia ,Kandra, Virbas, Chota Gamharia, Virdhavajpur **(ii) 7 Gram Panchayats:** 1. Rapcha, 2. Dugdha, 3. Kandra 4 Kalikapu 5 Chamaur 6. Chota Gamharia, 7. Birbas The ***detailed social performance report*** on above development activities is attached as **Annexure-1.**

Project Highlights for the month of March 2017

1. **Ambulance Services**: 24 X 7 ambulance facility has been providing to the villagers of peripheral village for better treatment. 14 Nos. of villagers' availed ambulance facilitates during the month.

2. **Occupational Health Center -APNRL, Padampur**: A total of 42 village patients including 19 males and 23 females underwent health check-ups and received free medical treatment and medicines 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 Gamharia Block, Saraikela who are our fellow citizens. Total members are 958 and consumed 106230 liters of safe drinking water in the month of March'2017.

4. **Computer Literacy Center**: Project Cyber village is running successfully in Rapcha & Dugdh G.P premises in a Public-Privet-Partnership mode where 68 students of periphery villages are learning computer.

5. **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 facility.

6. **Phenyl Making:** 14 - members of Mansa Devi Self-help Group of Srirampur initiated in Phenyl making and selling. This initiative has been taken by APNRL under its Corporate Social Responsibility towards capacity building and livelihood promotion.

7. **Agarbatti Making:** 14 - members of Jagriti Mahila Samiti of Srirampur village initiated in Agarabatti making, packaging and selling. This has helped them in increasing corpus fund for their group. This initiative has been taken by APNRL under its Corporate Social Responsibility towards capacity building and livelihood promotion.

8. **Book Keeping Training**: 5-days training of 2nd Batch was organized on Book keeping at Community Center, Padampur of identified 30 SHG members from peripheral village of Srirampur, Badahariharpur, Bikanipur & Padampur with the support of Government under Livelihood Mission from 27th Feb .2017 to 3rd March 2017. End of the day, Ms. Vimla Tirky-Lady Extension Officer, Gamharia said that Book keeping training of SHG member is very essential for ensuring future transactions and fiscal record maintenance to run a business successfully and also essential to keep record of all proceedings going on in team- decisions on activities of the micro units of SHGs.

9. **CSR review meeting held at District Collectoriate on 16th March 2017:**
   A CSR review meeting chaired by Sri Ramesh Gholap, Deputy Commissioner, Saraikella-Kharsawan held on 16th March 2017 at conference hall, DC office in which representatives of companies operating in the district participated along with ADC, DDC, SDO, District Animal Husbandry Officer, District Welfare Officer, DLO, IEO and other district officers. The representatives of the companies were informed by DC that the **Chief Secretary of the State Jharkhand is visiting Kuchai Block** in pursuance of employment generation and some proposed livelihood initiatives to be undertaken in the naxal affected area. He expected for contribution of companies in the noble cause of social upliftman in the naxal affected area of the district.

Local Employees

ADHUNIK POWER & NATURAL RESOURCES LTD, PADAMPUR

Emp. Code	Name of Employee	Father's Name	Designation	Grade	Department	Location
302223	Mr. Arun Mahato	Late. Anadi Mahato	Helper	W1	Electrical	Padampur Site
302236	Mr. Rajen Kumar Tudu	Mr. Ramdas Tudu	Technician	W2	WTP, Utilities	Padampur Site
302237	Mr. Bangal Majhi	Late. Dhaneswar Majhi	Technician	W2	Horticulture	Padampur Site
302384	Mr. Lal Mohan Mahato	Late. Anadi Mahato	Asst. Supervisor	W2	Civil	Padampur Site
302386	Mr. Budhram Baskey	Mr. Murli Baskey	Technician	W2	Operation	Padampur Site
302387	Mr. Ajit Mahato	Late Ranga Mahato	Technician	W2	Operation	Padampur Site
302393	Mr. Bijay Baskey	Late. Shashibhushan Baskey	Technician	W2	Civil	Padampur Site
302430	Mr. Laxman Baskey	Late. Dhaneshwar Majhi	Driver	W2	Medical Services	Padampur Site
302436	Mr. Raja Ram Majhi	Late. Somay Baskey	Technician	W2	Automobile	Padampur Site
302453	Ms. Paneshwari Kumari	Mr. Bangal Manjhi	Semi-Skilled	W1	Horticulture	Padampur Site
302454	Mr. Sunil Baskey	Mr. Bangal Manjhi	Semi-Skilled	W1	Coal Logistics	Padampur Site
302458	Mr. Nuna Baskey	Late. Shashi Bhushan Baskey	Helper	W1	Civil	Padampur Site
302462	Mr. Rajesh Kumar Mahato	Mr. Gadadhar Mahato	Fitter	W3	Civil	Padampur Site
302463	Mrs. Sonia Baskey	Mr. Suren Baskey	Semi-Skilled	W1	CSR	Padampur Site
302493	Mrs. Surajmani Baskey	Mr. Ramsay Baskey	Semi-Skilled	W1	EMD	Padampur Site
302494	Mrs. Saraswati Devi	Late. Satish Majhi	Semi-Skilled	W1	Medical Services	Padampur Site
302495	Mrs. Anita Mahato	Mr. Uttam Mahato	Assistant	O1	Maintenance	Padampur Site
302501	Mrs. Bangi Baskey	Mr. Laxman Baskey	Semi-Skilled	W1	AHP	Padampur Site
302503	Mr. Raju Tudu	Mr. Bangal Tudu	Technician	W2	Electrical	Padampur Site
302506	Mr. Ruhi Ram Majhi	Late.Darga Majhi	Welder	W2	Maintenance	Padampur Site
302507	Mr. Dilip Mahato	Mr. Basant Mahato	Helper	W2	WTP, Utilities	Padampur Site
302508	Mr. Dulal Mahato	Mr. Simantan Mahato	Helper	W2	Fire	Padampur Site
302509	Mr. Raju Mahato	Mr. Bhudeshwar Mahato	Helper	W2	WTP, Utilities	Padampur Site
302510	Mr. Santosh Mardi	Mr. Shanti Mardi	Electrician	W3	Electrical	Padampur Site
302515	Mr. Ajay Kumar Mahato	Late Shankar Mahato	Technician	W2	Electrical	Padampur Site
302516	Mr. Rajesh Mahato	Mr. Sudan Mahato	Technician	W2	Electrical	Padampur Site
302517	Mr. Mohan Lal Mahato	Mr. Madhu Mahato	Technician	W2	Electrical	Padampur Site
302518	Mr. Sumit Kumar Mahato	Mr. Mahendra Mahato	Technician	W2	Electrical	Padampur Site

302519	Mr. Tapan Kumar Mahato	Mr. Anil Kumar Mahato	Technician	W2	Electrical	Padampur Site
302520	Mr. Bibhishan Mahato	Mr. Kali Pada Mahato	Technician	W2	Automobile	Padampur Site
302521	Mr. Suku Murmu	Late. Konda Murmu	Technician	W2	Automobile	Padampur Site
302522	Mr. Bimal Kumar Mandal	Mr.Dilip Kumar Mandal	Technician	W2	Operation	Padampur Site
302523	Mr. Bablu Besra	Mr. Poda Besra	Technician	W2	Operation	Padampur Site
302524	Mr. Vikram Baskey	Late. Jitu Baskey	Technician	W2	Maintenance	Padampur Site
302525	Mr. Mangal Besra	Late Konda Majhi	Technician	W2	Operation	Padampur Site
302526	Mr. Bir Singh Hembram	Late Palu Hembram	Technician	W2	Maintenance	Padampur Site
302527	Mr. Gopal Hembrom	Mr. Laxman Hembrom	Technician	W2	Operation	Padampur Site
302528	Ms. Chhatamuni Baskey	Late Ghanshyam Baskey	Helper	W2	Stores	Padampur Site
302529	Mr. Durga Hembrom	Late Gurucharan Hembrom	Technician	W2	Operation	Padampur Site
302530	Mr. Suren Baskey	Late Mathoram Baskey	Technician	W2	Operation	Padampur Site
302531	Mr. Dasmath Hembrom	Late Laxman Hembrom	Technician	W2	Operation	Padampur Site
302532	Mr. Budheswar Baskey	Mr. Ranga Baskey	Technician	W2	Operation	Padampur Site
302533	Mr. Karan Hembrom	Mr. Hopna Hembrom	Technician	W2	Operation	Padampur Site
302534	Mr. Umesh Tudu	Late Somay Tudu	Technician	W2	Operation	Padampur Site
302540	Mr. Birendranath Baskey	Late. Ram Baskey	Driver	W2	Medical Services	Padampur Site
302541	Mr. Shailendra Tudu	Mr. Shalkhu Tudu	Driver	W2	Medical Services	Padampur Site
302550	Mr. Birdhan Baskey	Mr. Ghashi ram Baskey	Technician	W2	Automobile	Padampur Site
302574	Mr. Anil Sardar	Late. Sraban Sardar	Technician	W3	Civil	Padampur Site
302602	Mrs. Sarla Majhi	Mr. Sunaram Majhi	Assistant	O1	Admin.	Padampur Site
302603	Mrs. Sunita Devi	Mr. Narayan Besra	Assistant	O1	CSR	Padampur Site
302604	Mr. Sohan Kisku	Mr. Gomha Kisku	Technician	W3	Electrical	Padampur Site
302605	Mr. Dilip Kisku	Mr. Ganesh Kisku	Technician	W3	Electrical	Padampur Site
302606	Mr. Rabindra Nath Majhi	Late. Laxman Majhi	Technician	W3	Operation	Padampur Site
302607	Mr. Mokra Murmu	Mr. Baneshwar Murmu	Technician	W3	Electrical	Padampur Site
302608	Mr. Lakhiram Tudu	Late. Somai Tudu	Technician	W3	Maintenance	Padampur Site
302609	Mr. Durga Baskey	Mr. Birendra Baskey	Technician	W3	Maintenance	Padampur Site
302610	Mr. Jiten Hansda	Late. Laxman Hansda	Technician	W3	Operation	Padampur Site
302611	Mr. Jiten Sardar	Mr. Kali Charan Sardar	Technician	W3	Operation	Padampur Site
302612	Mr. Ashok Kumar Mahato	Mr. Surendra Mahato	Technician	W3	Operation	Padampur Site

302613	Mr. Mangal Majhi	Late. Kanda Majhi	Technician	W3	Electrical	Padampur Site
302614	Mr. Sagram Tudu	Mr. Jagran Tudu	Technician	W3	Electrical	Padampur Site
302615	Mr. Sunil Kumar Tudu	Mr. Birmal Tudu	Technician	W3	Operation	Padampur Site
302616	Mr. Ganesh Mahato	Mr. Ram Bhagat	Technician	W3	Electrical	Padampur Site
302617	Mr. Sachin Kumar Tudu	Mr. Ramdas Tudu	Technician	W3	Operation	Padampur Site
302618	Mr. Alok Mahato	Mr. Surendra Mahato	Technician	W3	Electrical	Padampur Site
302619	Mr. Rakesh Kumar Mahato	Mr. Gadadhar Mahato	Technician	W3	Operation	Padampur Site
302620	Mr. Chhotray Majhi	Mr. Karan Majhi	Technician	W3	Operation	Padampur Site
302621	Mr. Devi Lal Majhi	Mr. Laxman Majhi	Semi Skilled	W2	Civil	Padampur Site
302622	Mr. Govind Majhi	Late. Laxman Majhi	Technician	W3	Electrical	Padampur Site
302628	Mr. Kalipada Singh Sardar	Late Debendra Sardar	On the Job Trainee	W1	CHP	Padampur Site
302644	Mr. Vikram Singh Sardar	Mr. Sohan Singh Sardar	Semi-Skilled	W2	Intake Well	Padampur Site
302645	Mr. Manik Singh Sardar	Mr. Sohan Singh Sardar	Technician	W3	Intake Well	Padampur Site
302646	Mr. Jagannath Singh Sardar	Mr. Man Singh Sardar	Semi-Skilled	W2	Intake Well	Padampur Site
302647	Mr. Budheshwar Mahato	Mr. Srikant Mahto	Semi-Skilled	W2	Intake Well	Padampur Site
302659	Mr. Krishna Manjhi	Late. Leda Manjhi	Un-Skilled	W1	CHP Lab	Padampur Site
302660	Mr. Sakia Hembrom	Late. Gurucharan Hembrom	Un-Skilled	W1	Maintenance	Padampur Site
302661	Mr. Uttam Kumar Mahato	Mr. Gaya Dutta Mahato	Technician	W3	Maintenance	Padampur Site
302662	Mr. Shikar Hembrom	Late. Laxman Hembrom	Technician	W3	C&I	Padampur Site
302663	Mr. Ranjit Besra	Late. Bahadur Besra	Un-Skilled	W1	CHP Lab	Padampur Site
302664	Mr. Hopna Baskey	Mr. Dhuma Baskey	Helpe	W2	Operation	Padampur Site
302665	Mr. Sona Ram Baskey	Late. Suku Baskey	Helper	W2	Operation	Padampur Site
302666	Mr. Suku Majhi	Late. Lera Majhi	Un-Skilled	W1	AHP	Padampur Site
302667	Mr. Gopal Majhi	Late. Balram Majhi	Helper	W2	Operation	Padampur Site
302668	Mr. Ramdas Kisku	Mr. Bishwanath Majhi	Helper	W2	Operation	Padampur Site
302669	Mr. Som Murmu	Mr. Jagaran Murmu	Technician	W3	Operation	Padampur Site
302670	Mr. Khirod Chandra Mahato	Mr. Anil Mahato	Technician	W3	Operation	Padampur Site
302671	Mr. Sona Ram Hembrom	Mr. Bishtu Hembrom	Technician	W3	C&I	Padampur Site
302672	Mr. Ram Hembrom	Late . Sarkar Hembrom	Un-Skilled	W1	CHP Lab	Padampur Site
302673	Mr. Rajesh Mahato	Mr. Vidyadhar Mahato	Technician	W3	C&I	Padampur Site
302674	Mr. Nimay Mahato	Late. Shankar Mahato	Un-Skilled	W1	DM Plant	Padampur Site

302676	Mr. Peeton Baskey	Mr. Laxman Baskey	Un-Skilled	W1	Maintenance	Padampur Site
302677	Mr. Raju Baskey	Late. Mangal Baskey	Un-Skilled	W1	CHP Lab	Padampur Site
302678	Mr. Bablu Baskey	Late. Ramu Baskey	Un-Skilled	W1	CHP Lab	Padampur Site
302679	Mr. Baijnath Mardi	Late Hikoo Mardi	Technician	W3	Planning & Monitoring	Padampur Site
302680	Mr. Nitai Sardar	Late. Kartik Sardar	Technician	W3	Planning & Monitoring	Padampur Site
302681	Mr. Baliram Murmu	Late. Lau Murmu	Technician	W3	Planning & Monitoring	Padampur Site
302682	Mr. Karu Tilka Majhi	Late. Bhagwat Majhi	Technician	W3	C&I	Padampur Site
302683	Mr. Rajendra Hembrom	Mr. Bore Majhi	Un-Skilled	W1	Maintenance	Padampur Site
302684	Mr. Jitu Hembrom	Late. Sundar Hembrom	Un-Skilled	W1	CHP Lab	Padampur Site
302687	Mr. Soken Tudu	Late. Dhanu Ram Tudu	Technician	W3	C&I	Padampur Site
302688	Mr. Umesh Baskey	Late. Laxman Baskey	Un-Skilled	W1	AHP	Padampur Site
302690	Mr. Anil Tudu	Mr. Badal Majhi	Un-Skilled	W1	CHP Lab	Padampur Site
302694	Mr. Akash Tudu	Mr. Bangal Tudu	Un-Skilled	W1	Stores	Padampur Site
302695	Mr. Sushil Kumar Tudu	Mr. Birmal Tudu	Un-Skilled	W1	CHP Lab	Padampur Site
302696	Mr. Mahendra Tantubai	Late. Radhanath Tantubai	Technician	W3	Electrical	Padampur Site
302697	Mr. Prakash Tudu	Late. Dhanu Ram Tudu	Un-Skilled	W1	Stores	Padampur Site
302698	Mr. Karu Besra	Mr. Deonath Besra	Technician	W3	C&I	Padampur Site
302699	Mr. Bangal Tudu	Late. Ravi Tudu	Un-Skilled	W1	CHP Lab	Padampur Site
302700	Mr. Ravindra Nath Tudu	Mr. Boda Tudu	Technician	W3	Electrical	Padampur Site
302701	Mr. Som Majhi	Late. Gurbha Majhi	Un-Skilled	W1	CHP Lab	Padampur Site
302702	Mr. Salku Tudu	Mr. Badal Tudu	Un-Skilled	W1	AHP	Padampur Site
302707	Mr. Sukram Tudu	Mr. Rabi Tudu	Un-Skilled	W1	CHP Lab	Padampur Site
302708	Mr. Jeevan Manjhi	Late. Gurba Manjhi	Un-Skilled	W1	CHP Lab	Padampur Site
302709	Mr. Birsa Hansda	Late. Bhaduram Hansda	Technician	W3	Operation	Padampur Site
302710	Mr. Surja Hansda	Late. Badhuram Hansda	Un-Skilled	W1	CHP Lab	Padampur Site
302711	Mr. Sanjay Mandal	Mr. Surendra Nath Mandal	Technician	W3	C&I	Padampur Site
302712	Mr. Budhadev Mahato	Mr. Gurucharan Mahato	Technician	W3	C&I	Padampur Site
302713	Mr. Narayan Mahato	Mr. Nalini Kant Mahato	Technician	W3	Operation	Padampur Site
302714	Mr. Jai Chand Mahato	Mr. Jogendra Mahato	Technician	W3	Maintenance	Padampur Site
302715	Mr. Mithun Majhi	Mr. Bhaglu Majhi	Technician	W3	C&I	Padampur Site
302716	Mr. Sumit Kumar Mahato	Mr. Simantan Mahato	Technician	W3	WTP, Utilities	Padampur Site

302717	Mr. Mantu Mahato	Mr. Anil Mahato	Un-Skilled	W1	CHP Lab	Padampur Site
302718	Mr. Santosh Sardar	Late. Sarwan Sardar	Un-Skilled	W1	CHP Lab	Padampur Site
302719	Mr. Ranjit Singh Sardar	Late. Pawan Sardar	Un-Skilled	W1	CHP Lab	Padampur Site
302720	Mr. Lal Mohan Mahato	Mr. Anil Mahato	Un-Skilled	W1	CHP Lab	Padampur Site
302721	Mr. Sohan Sardar	Late. Sarwan Sardar	Un-Skilled	W1	CHP Lab	Padampur Site
302722	Mr. Paga Sardar	Late. Sambhu Sardar	Un-Skilled	W1	Maintenance	Padampur Site
302773	Mr. Shibanath Singh Sardar	Mr. Dhan Singh Sardar	On the Job Trainee	W1	Civil	Padampur Site
302774	Ms. Basanti Singh Sardar	Mr. Kalicharan Singh Sardar	On the Job Trainee	W1	Electrical	Padampur Site
302775	Mr. Kali Pado Sardar	Mr. Shambhu Sardar	On the Job Trainee	W1	Civil	Padampur Site
300009	Mr. June Baskey	Bhim Baskey	Asst. Supervisor	W2	Civi	Padampur Site
300010	Mr. Mangal Manzi	Loso Manzi	Asst. Supervisor	W2	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	October	November	December	January	February	March
				2016	2016	2016	2017	2017	2017
1	Total Cr	2	mg/L	< 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.
3	Zinc	5	mg/L	<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
5	pH	5.5 to 9	-	7.1	7.6	7.6	7.2	7.2	7.6
6	Suspended Solids	100	mg/L	15	16	31	33	22	23
7	Oil & Grease	10	mg/L	N.D.	1.3	N.D.	N.D.	N.D.	N.D.
8	BOD 3 day 27 Deg. C	30	mg/L	2.6	2.9	2.4	1.9	1.9	1.8
9	COD	250	mg/L	13.4	16.4	19.4	20.4	13.4	12.9
10	TDS	-	-	412	451	356	381	341	364
11	Cloride	-	-	218	196	194	186	212	216
12	Sulphate	-	-	30.1	26.7	21.8	20.3	19.6	21.4
13	Iron	3	mg/L	0.77	0.64	0.36	0.81	0.44	0.61

*** Treated Water used for dust supression & Horticulture work.**

Annexure XVIII

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
	CONSENTED NORMS	75 dBA	70 dBA	75 dBA	70 dBA	75 dBA	70 dBA	85dBA		
		Day	Night	Day	Night	Day	Night			
1	Oct-16	45.6	35.6	65.1	48.9	71.5	63.1	78.6	82.4	84.1
2	Nov-16	48.2	36.9	63.4	48.2	74.6	61.3	77.6	81.3	83.6
3	Dec-16	45.6	35.1	56.4	33.8	72.4	56.4	77	83.4	84.2
4	Jan-17	46.2	35.1	52.4	37.1	75.1	58.4	76	82.4	84.1
5	Feb-17	48.6	32.5	54.1	35.8	70.8	55.1	76	82.6	84.1
6	Mar-17	45.6	36.4	55.4	32.8	71.6	56.4	75	81	83

Annexure XX

Annexure XIX

HINDUSTAN PETROLEUM CORPORATION LIMITED

(A Government of India Enterprise)

QUALITY CONTROL LABORATORY

Visakha New Terminal/Visakha New Terminal
CONVENT JN.-SHEELANAGAR ROAD,
BEHIND AIRPORT,VISAKHAPATNAM-530014

Test Report

Product : (0384000) HP INDUSTRIAL DIESEL OIL

Invoice No	:	18033332/RI/23705	Vehicle No	:	AP31TF0279
Sample Number	:	881383	Date of Sample Drawn	:	13/03/2017
Tank No/Location	:	TK104	Date of Sample Testing	:	13/03/2017
Sample Taken From (Source)	:	TK104	Date of Printing	:	22/03/2017

Test Line Number	Characteristics	Units	Test Method	Specifications Min	Specifications Max	Result Value
1	LDO APPEARANCE		VISUAL	DARK	DARK	LIGHT BROWN
5	DENSITY@ 15°C	Kg/m3	IS 1448 [P:16]	-	-	881.0
6	KINEMATIC VISCOSITY @ 40° C	cSt	IS 1448 P:25	2.500	15.000	5.418
7	LDO FLASH POINT - PMCC	°C	IS 1448 P:21	66	-	106
8	WATER CONTENT	% Vol	IS 1448 P:40	-	.250	.100
9	TOTAL SULPHUR	% Mass	ASTM D 4294	-	1.80	1.00
11	LDO POUR POINT WINTER	°C	IS 1448 P:10	-	12	6

Laboratory Remarks:

Sample meets specification as per IS-13770-2008(Reaffirmed 2014) in the above parameters.

Notes : 1) The sample is drawn by client and results relate to sample tested
2) The test report shall not be reproduced except in full without prior written approval of the Lab Incharge
3) This test report shall not be used in any advertising media or as evidence in the Court of Law without prior written consent of Laboratory
4) Test results reported are valid at the time of testing
5) This is a system generated test report and hence does not require signature

*** END OF TEST REPORT ***

Adhunik Power & Natural Resources Limited, Padampur

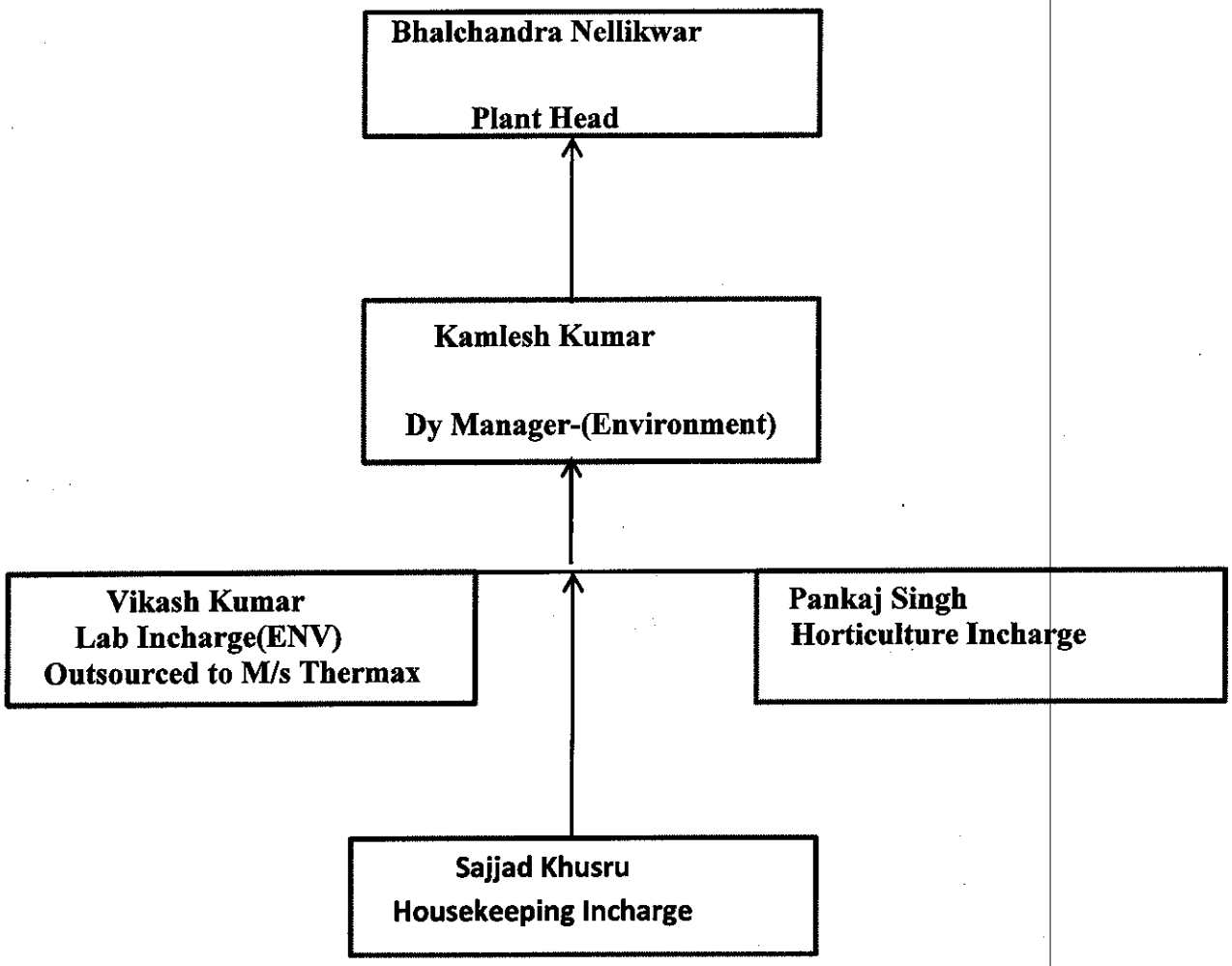
AMBIENT AIR QUALITY MONITORING REPORT

LOCATION→	GET Hostel				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/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
Oct-16	69.7	45.6	15.7	9.2	77.8	45.8	21.9	11.7	85.9	52.8	16.3	13.4
Nov-16	61.8	43.6	12.8	8.9	81.4	53.1	18.6	11.9	88.9	56.7	17.3	12.4
Dec-16	63.7	42.1	12.6	7.4	72.1	44.6	12.6	8.9	81.4	53.4	13.4	10.8
Jan-17	67.2	44.2	11.6	8.1	75.4	50.1	10.9	8.2	86.4	55.7	12.6	9.7
Feb-17	53.6	36.4	10.8	8.4	66.4	41.8	11.6	6.1	71.5	54.9	14.6	11.3
Mar-17	52.6	39.4	11.2	9.1	69.4	40.6	10.9	7.6	75.6	51.3	13.2	10.8

Annexure XXI

Annexure XXII

ORGANISATION CHART
ENVIRONMENT MANAGEMENT CELL



Annexure XVIII

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/2015-16/02 **Date: 14th Sep 2016**

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 09th May 2011.

Dear Sir,

In line with compliance of above referred EC letter point No XIII of general condition, Please find attached herewith Environmental statement (Form V) for the financial year 2015-16.

This is for your kind information & record please.

Thanking You

Your's faithfully

Received 19/9/16

Bhalchandra Nellikwar
(Plant Head)

Received 19/9/16

Received 15.9.16

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

Annexure XXIV
9c

ADHUNIK POWER & NATURAL RESOURCES LTD.

Ref: MOE&F, RNC/HYC/BN/281116 /02 **Dated: 28.11.2016**

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 – April 2016 to September 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 **April 2016 to September 2016,-**.

This is for your reference and record, please.

Thanking you,

For **Adhunik Power & Natural resources Limited**

(Authorized Signatory)

Received
Mukesh Yadav
2/12/16
M/o Environment, Forests & Climate Change, R.O. Ranchi

Encl: As Above
Copy to:

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

Annexure XXV

Recurring cost incurred on Environment protection measures of M/s Adhunik Power & Natural Resources Ltd. Year 2016-17(in Lakhs)

Sl No	Description of Environment Measures	Oct 2016- March 2017		
		Unit II		
		Energy	Other cost	Total Cost
1	ESP operation & Maintenace	129.90	2.97	132.87
2	ETP & STP operation & Maintenance	10.16	6.54	16.70
3	Plant Housekeeping	0.00	28.71	28.71
4	DE System Operation & Maintenance	25.80	1.75	27.55
5	DS operation & Maintenance	0.25	0.23	0.48
6	Green Belt development	0.10	8.00	8.10
7	Environment Management system(Monitoring, Equipment Calibration, Clebration of Environment Programmes & Preparation of Environment Audit, ESMS report)	0.56	2.45	3.01
8	Ash disposal system	0.00	459.29	459.29
9	Rain water harvesting system	0.00	0.26	0.26
10	CAAQMS & CEMS Operation & Maintenance	0.00	0.75	0.75
		166.77	510.95	677.72