



## Power

Ref: REL/MoEF&CC/EC/2019/Dec-1

Date: 02.12.2019

To,  
The Regional Officer,  
Ministry of Environment and Forest & Climate Change  
Regional Office (WCZ), Ground Floor  
East Wing, New Secretariat Building,  
Civil Lines, Nagpur-440001

**Subject:** Submission of six monthly compliance status of environment clearance No. J 13012/62/2008-IA.II (T) dated 09<sup>th</sup> May 2011 and it is amended, dated on 10<sup>th</sup> June 2015, 13<sup>th</sup> June 2013, 18 November 2014 and 04 February 2015 for 2x685 MW Super Critical Imported Coal Based Thermal Power Plant at villages Raikheda, Gaitara and Chicholi, in Tilda Block, in Raipur Distt., in Chhattisgarh for the period of April to September 2019.

Dear Sir,

With reference to the above subject, please find enclosed (Annexure-1) six monthly compliance status of environment clearance for the period of April 19- September 19.

We hope you will find this satisfactory and in line with requirement.

**Thanking You,  
For, Raipur Energen Limited (A subsidiary of Adani Power Limited)  
Authorized Signatory**

**(Santosh Kumar Singh)**

E-mail: [env.power@adani.com](mailto:env.power@adani.com)

**CC:**

1. The Member Secretary, Central Pollution Control Board, Parivesh Bhavan, East Arjun Nagar, New Delhi- 110032.
2. The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhavan, North Block Sector-19, Naya Raipur(C.G.) Chhattisgarh 490009

**Enclosures:** As above

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(Formerly Known as GMR Chhattisgarh Energy Limited)  
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**Raipur Energen Limited**  
**(2x685 MW Coal Based Thermal Power Plant)**

**Status of Half Yearly compliance w.r.t**  
**Environmental Clearance No. J-13012/62/2008-IA.II (T), dated: 09th May 2011. And amendment's dated: 13.06.2013,**  
**18.11.2014, 04.02.2015 & 09.12.2015.**  
**(For the Period of April 2019- September 2019)**

**Specific Conditions**

	<b>Conditions of EC dated 09th May 2011</b>	<b>First Amendment in Condition</b>	<b>Second Amendment in condition</b>	<b>Compliance Status</b>
i	Vision document specifying prospective plan for the site shall be formulated and submitted to the Ministry within six months.	—	—	Name of the company has been changed to Raipur Energen Limited from 1 <sup>st</sup> July 2019 and company now a subsidiary of Adani Power Limited.  The Vision document of the company is attached as <b>Annexure VI</b>
ii	In case source of fuel supply now proposed to be run on imported coal from South Africa for running the power plant is proposed to be changed to domestic coal at a later stage, the project proponent shall apply for such a change in environmental clearance along with necessary documents as required under EIA notification, 2006 (and its amendments). In such a case the necessity for holding	Amended vide letter from MOEF having No. J-13012/62/2008-IA.II (T) GOI, MOEF dated 04/02/2015 for <b>"The source of imported coal from Indonesia in addition to South Africa and blend of maximum 50% domestic e-auction coal"</b> subjected to following condition	Amended vide letter from MOEF having No. J-13012/62/2008-IA.II (T) GOI, MOEF dated 09/12/2015 for <b>"Usage of 100% Domestic coal sourced from Talabira – I &amp;/or Ganeshpur coal mine, and in worst case scenario, usage of 50% blended coal as approved earlier"</b>	Being complied by use of 100% domestic coal sourced from tolling linkage and open market. Talabira-1 Mine is not under mining operation as Mining Plan was expired and the revised mining plan is due for approval.

	public hearing again or otherwise will be determined by the Ministry in consultation with the Expert Appraisal Committee (Thermal Power).	<p>Sulphur and ash content in the coal to be used in the project shall not exceed 0.7% and 34% respectively for at any given time. In case of variation of coal quality at any point of time, fresh reference shall be made to the Ministry for suitable amendment to environmental clearance condition wherever necessary.</p> <p>The PP shall advertise in the local newspapers and place on the website, the proposed amendment for public information.</p>	<p>Sulphur and ash content of coal shall not exceed 0.7% and 34% respectively. In case of variation of quality at any point of time, fresh reference shall be made to the Ministry for consideration.</p> <p>The PP shall advertise in the local leading newspaper and place on the website, the proposed amendment of EC (after receiving from ministry) for change in source of coal for public information.</p>	<p>Sulphur and Ash content in coal being used in project as fired coal is being ensured within prescribed standards of 0.7% and 34%</p> <p>This condition was complied with advertisement after the amendment. EC with all amendments are kept in public domain at company website <a href="https://www.adanipower.com/Downloads">https://www.adanipower.com/Downloads</a></p> <p><b>Thus, Complied.</b></p>
iii	Provision for installation of FGD shall be provided for future use.	—	—	<p>Space provision for FGD has been made.</p> <p><b>Thus, Complied.</b></p>

iv	Stack of 275 m height shall be installed and provided with continuous online monitoring equipment's for SO <sub>x</sub> , NO <sub>x</sub> , PM <sub>2.5</sub> & PM <sub>10</sub> . Exit velocity of flue gases shall not be less than 22 m/sec. Mercury emissions from stack may also monitored on periodic basis.	—	—	Stack Height is 275 meter. On-line continuous emission monitoring system (CEMS) has been installed for PM, SO <sub>2</sub> & NO <sub>x</sub> . Monitoring of Hg in stack emission is also carried out by authorized laboratory by MoEF & CC. The exit gas velocity is ensured @ 22m/sec.  The Environment Monitoring report is attached herewith as <b>Annexure I</b> .  <b>Thus, Complied.</b>
v	High Efficiency Electrostatic Precipitators (ESPs) shall be installed followed by installation of Bag Filter and it shall be ensured that particulate emission does not exceed 50 mg/Nm <sup>3</sup> .	Amended vide Office Memorandum letter from MOEF having No. J-13012/62/2008-IA.II (T) GOI, MOEF dated 13/06/2013  High Efficiency Electrostatic Precipitators (ESPs) shall be ensured that particulate emission does not exceed 50 mg/ Nm <sup>3</sup>	—	ESP is installed for ensuring emission level < 50 mg/Nm <sup>3</sup> . The report for stack monitoring is attached in <b>Annexure 1</b>  <b>Thus, Complied</b>
vi	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.	—	—	Dust extraction system has been installed in coal crusher, AHP & coal bunker. Dust suppression system through dry fog method has been installed in coal conveyor transfer point & water spray system in coal yard has also been installed for dust suppression.  <b>Thus, Complied</b>

vii	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.5 % 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.	<p>Amended vide Office Memorandum letter from MOEF having No. J-13012/62/2008-IA.II (T) GOI, MOEF dated 13/06/2013 under Specific condition no. xxxi</p> <p>The GCV of the imported coal from south Africa shall not be less than 4911Kcal/kg and the ash and sulphur contents shall not exceed the limits stated under: Ash contents : 33.7% Sulphur Contents : 0.7%</p>	<p>Amended from MOEF vide letter no. J-13012/62/2008-IA.II (T) GOI, MOEF dated 04/02/2015 &amp; 09/12/2015</p> <p>Sulphur and ash content in the coal to be used in the project shall not exceed 0.7% and 34% respectively for at any given time. In case of variation of coal quality at any point of time, fresh reference shall be made to the Ministry for suitable amendment to environmental clearance condition wherever necessary.</p>	Sulphur and Ash content in coal being used in project as fired coal is being ensured within prescribed standards of 0.7% and 34%
viii	Transport of coal to the plant site shall be strictly by rail. The project proponent shall therefore immediately take up the matter with the Railways. Status of implementation shall be submitted to the Regional Office of the Ministry from time to time.	<p>Amended from MOEF vide letter no. J-13012/62/2008-IA.II (T) GOI, MOEF dated 18/11/2014</p> <p><b>Awarded temporary permission for road transportation of coal for a limited period of three years</b> subjected to compliance of conditions</p>	—	<p>Complied. The transportation through rail is started. Avenue plantation all along the road has already been done inside the plant premises. Complied after amendment. EC with its amendment time to time is also kept in public domain at the website of holding company <a href="https://www.adanipower.com/Downloads">https://www.adanipower.com/Downloads</a></p> <p><b>Thus, Complied.</b></p>

		<p>i) The coal transportation by road shall be through mechanically covered trucks to the extent feasible, else, shall be through tarpaulin covered trucks.</p> <p>ii) Avenue plantation of 2/3 row all along the road shall be carried out by the project proponent at its own expenses in consultation with the State Government Authority.</p> <p>iii) Periodic maintenance of the road shall be done by the project proponent at its own expenses and shall facilitate the traffic control on the road in consultation with State Government Authorities.</p> <p>iv) The PP shall advertise in the newspaper and</p>	<p>—</p>	
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		place on the website, the amendment issued by the Ministry for public information.		
ix	Existing de-generated water bodies (if any) within 5.0 Km of the site shall be regenerated at the project proponent's expenses in consultation with the state govt.	—	—	We have regenerated around 6 numbers of Water bodies in nearby villages including 2 numbers in ponds were deepened and beautification was done by company in Raipur in consultation with state government.  <b>Thus, Complied</b>
x	The proponent shall sponsor a detailed study regarding water availability in Mahanadi River for all competing sources such as drinking, agriculture, industrial, minimum flow of water in the river during the lean season etc. through institutions like IIT, Delhi/IIT, and Roorkee. The draft terms of reference shall be submitted within three months which shall be finalized by the Expert Appraisal Committee. The preliminary report on the above study shall be submitted within one year.	—	—	Complied.
xi	The project proponent shall undertake proactive water harvesting measures and water storage for a larger			Rainwater harvesting design is approved by CGWA. Copy of approval letter is submitted to MoEFCC. The

	<p>period not less than 30 days storage shall be developed. The rain water harvesting system shall be put in place 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.</p>	—	—	<p>rainwater harvesting ponds are constructed for rain water harvesting and recharge.</p> <p>Annexure No VII. – CGWA approval and Photographs of Rainwater Harvesting Ponds</p> <p><b>Thus, Complied.</b></p>
xii	<p>Hydrogeology in and around the project 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</p>	—	—	<p>The hydrogeology study was conducted for EC. Study report is being reviewed annually as per condition. The next review status report will be submitted to Ministry along with half yearly EC Compliance report for Oct-March 2019-2020.</p> <p><b>Thus, Complied.</b></p>



	monitored regularly and maintained shall be submitted to the Regional Office of the Ministry.			
xiii	No ground water shall be extracted for use in operation of the power plant even in lean season.	—	—	Being Complied.
xiv	No water bodies (including natural drainage system) in the area shall be disturbed due to activities associated with the setting up / operation of the power plant.	—	—	No water bodies has been disturbed during construction activity/ operational activity of the plant. <b>Thus, Complied</b>
xv	Water requirement shall be optimized to around 32 MCM and shall accordingly adopt higher COC of at least not less than 5.0.	—	—	Water requirement is being restricted to 25 MCM & COC is being maintained more than 5.0 <b>Thus, Complied.</b>
xvi	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.	—	—	REL is drawing within the allocated water quantity. Allocation has been done to industry Water Resource Department, Government of Chhattisgarh considering the minimum environment flow requirement in the river. <b>Thus, Complied.</b>
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	—	—	Six nos. piezometers constructed around periphery of the ash pond.  Seasonal monitoring of ground water level and quality is being done and monitoring data is being submitted to the MOEF/CPCB/CECB regularly.

	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	—	—	The ground water analysis data is attached in <b>Annexure I.</b>  Thus, Complied.
xviii	Monitoring surface water quality in the region 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.	—	—	Seasonal monitoring of Surface water is being done. The monitored data is being submitted to MOEF/CPCB/CECB regularly.  The surface water analysis data is attached in <b>Annexure I.</b>  <b>Thus, Complied.</b>
xix	Additional soil for levelling 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.	—	—	Completed during construction phase. No major construction is being executed in operation phase.  <b>Thus, Complied.</b>

xx	The project proponent shall undertake measures and ensure that no fugitive fly ash emissions take place at any point of time.	—	—	All the preventive measures have been ensured to restrict fugitive emission from fly ash. <b>Thus, Complied.</b>
xxi	Utilization of 100% Fly Ash generated shall be made from 4th year of operation. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.	—	—	Fly ash is being supplied to nearest cement industries and brick manufacturer. Fly Ash generation and utilization is attached as <b>Annexure II</b> <b>Thus, Complied.</b>
xxii	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.	—	—	Fly ash is being collected in dry form and unutilized fly ash is being disposed in dedicated ash storage ponds. No ash is being disposed in low lying areas. Mercury and heavy metals are being monitored in bottom ash. No effluent is emanated from ash pond. <b>Thus, Complied</b>
xxiii	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	—	—	Ash ponds is constructed in the way that no leachate takes place any point of time. <b>Thus, Complied.</b>

	protect the ash dyke from getting breached.			
xxiv	For disposal of Bottom Ash in abandoned mines (if proposed to be undertaken) shall be done after obtaining due permission from DGMS and after ensuring that the bottom and sides of the mined out areas are adequately lined with clay before Bottom Ash is filled up. The project proponent shall inform the State Pollution Control Board well in advance before undertaking the activity.	—	—	Shall be complied as & when required.
xxv	Green Belt consisting of 3 tiers of plantations of native species around plant and at least 75 m width shall be raised. Tree density shall not less than 2500 per ha with survival rate not less than 80 %.	—	—	Greenbelt development is developed as per guideline. Report is attached as <b>Annexure III. Thus, Complied</b>
xxvi	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.	—	—	The Company undertakes various CSR activities with expenditure within the framework of the CSR Rules under the Companies Act. Community services in three nearby villages namely Raikheda, Chicholi & Gaitera is conducted with focus and Sontara, Gaurkheda and Murra village area also covered. The outreach is also expanded to other nearby villages namely Khamariya, Konari, Tulsi, Tarashiv, Bartori, Chatod and Samoda. The Thematic area of work in villages is improving quality of education, access of health care and sanitation, empowerment

				<p>and livelihood through SHGs, individual income generation &amp; community vocational training centre and community development.</p> <p>Please refer the attached half yearly report for latest updates as <b>Annexure IV</b></p> <p><b>Thus, Complied</b></p>
xxvii	The project proponent shall also adequately contribute in the development of the neighbouring 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.	—	—	<p>The Company is undertaking CSR activities within 10 km radius area with focus on project affected and Railway siding villages namely Sontara, Gaurkheda, Khamariya, Konari Murra, Tulsi, Tarashiv, Bartori, Chatod located on western and northern boundary of the proposed plant. The development work in these villages is implemented in planned and time bound manner.</p> <p><b>Thus, Complied</b></p>
xxviii	A time bound implementation of the CSR shall be formulated within six months and submitted to the Ministry. While identifying CSR activities it shall be ensured that need based assessment for the nearby villages within study area shall be conducted to study economic measures with action plan which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people shall be undertaken. Development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for	—	—	<p>CSR Plan for the villages is made as per local need and CSR activities are identified by Social work professionals employed exclusively for CSR through the company in consultation with communities and their representatives. Poorest of the poor families are identified basing village Panchayats statistics and special interventions have been planned for their upliftment.</p> <p>Separate budget has been allocated for community development activities, income generation activities.</p> <p>Vocational training is being provided to youth for self-employment free of cost. We have started <b>Pratibha center</b> for local youths. To increase access of youth to educational and employment opportunities through helping them become aware of and to prepare for these. To prepare youth to become self-reliant through education and employment opportunities at Pratibha centers.</p>

	community development activities and income generating programmes. Vocational training programme for possible self-employment and jobs shall be imparted to identify villagers free of cost.			Please refer the attached half yearly report for latest updates as <b>Annexure IV</b>  <b>Thus, Complied</b>
xxix	An amount of Rs 33.16 Crores shall be earmarked as one time capital cost for CSR programme as committed by the project proponent. Subsequently a recurring expenditure of Rs 6.63 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.	—	—	Time bound implementation of CSR activities with budget of Rs.33.16 has been completed and recurring expenditure is planned and being implemented in nearby project villages.  <b>Thus, Complied</b>
xxx	It shall be ensured that in-built monitoring mechanism for the schemes identified is in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time	—	—	Condition is being complied and social audit is being conducted time to time. Report for FY 2019-20 shall be submitted along with six-monthly compliance report for Oct – March 2019-20.  <b>Thus, Complied</b>

xxxii	—	<p>Amended vide Office Memorandum letter from MOEF having No. J-13012/62/2008-IA.II (T) GOI, MOEF dated 13/06/2013</p> <p>The GCV of the imported coal from south Africa shall not be less than 4911Kcal/kg and the ash and sulphur contents shall not exceed the limits stated under: Ash contents : 33.7% Sulphur Contents : 0.7%</p>	<p>Amended from MOEF vide letter no. J-13012/62/2008-IA.II (T) GOI, MOEF dated 04/02/2015 &amp; 09/12/2015</p> <p>Sulphur and ash content in the coal to be used in the project shall not exceed 0.7% and 34% respectively for at any given time. In case of variation of coal quality at any point of time, fresh reference shall be made to the Ministry for suitable amendment to environmental clearance condition wherever necessary.</p>	<p>Sulphur and Ash content in coal is ensured within prescribed standards of 0.7% and 34%</p> <p><b>Thus, Complied.</b></p>
xxxii	—	<p>A long term study of radioactive and heavy metals contents on coal to be used shall be carried out through a reputed institute.</p> <p>Thereafter mechanism for an in-built continuous monitoring for radio activity and heavy metals in coal and fly ash (including</p>	—	<p>Condition is being complied. Report for FY 2019-20 shall be submitted along with six-monthly compliance report for Oct – March 2019-20.</p> <p><b>Thus, Complied.</b></p>

		bottom ash) shall be put in place.		
xxxiii	—	Continuous monitoring for heavy metals in and around the ash pond area shall be carried out through reputed institutes like IIT, Kanpur and records/data maintained.	—	Condition is being complied. Report for FY 2019-20 shall be submitted along with six-monthly compliance report for Oct – March 2019-20.
xxxiv	—	Harnessing solar power within the premises of the plant particularly at available rooftops shall be undertaken and status of the implementation shall be submitted periodically to the regional Office of the Ministry.	—	Complied. The feasibility study has been done. <b>Thus, Complied.</b>
xxxv	—	Greenbelt shall also be developed around the ash pond over and above the Green belt around the plant boundary.	—	Complied. Greenbelt development report is attached as <b>Annexure III.</b> <b>Thus, Complied.</b>
xxxvi	—	The project proponent shall formulate a well-laid corporate	—	A well laid environmental policy is in place, with competent and committed workforce for compliance.



		environment policy, identify and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with the condition stipulated in this clearance letter and other applicable environmental laws and regulations.		
<b>B - General Conditions</b>				
i	The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not get mixed.	—	—	<p>The treated effluents conforming to the prescribed standards only are re-circulated and reused within the plant.</p> <p>Plant layout has been designed so that effluents and storm water do not get mixed.</p> <p>The ETP analysis report is attached as <b>Annexure I</b>.</p> <p><b>Thus, Complied</b></p>
ii	A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation.	—	—	<p>A well-equipped Sewage Treatment Plant is installed and commissioned within premises to ensure quality of sewerage.</p> <p>The STP water treated analysis report is attached as <b>Annexure I</b>.</p>

				<b>Thus, Complied.</b>
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.	—	—	Complied with submission of drawings to the Ministry as well as to the Regional Office of 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 for storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS has been obtained from Department of Explosives, Nagpur has been submitted.  Sulphur content in the liquid fuel will not exceed 0.5%.  Disaster Management Plan also is in place.  <b>Thus, Complied.</b>
v	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	—	—	Completed during construction phase. <b>Thus, Complied.</b>

vi	Noise levels emanating for turbines shall be so controlled such that the noise in the work zone shall be limited to 85 dBA from the source. For people working in the high noise area, requisite personal protective equipment like ear plugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc. shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non-noisy/less noisy areas.	—	—	<p>Engineering control for noise such as acoustic enclosure, silencer have been installed in the turbine. Other than engineering controls, PPE's like ear plug, muff etc. are provided to workers in high noise area.</p> <p>Noise level monitoring report is attached in <b>Annexure I.</b></p> <p><b>Thus, Complied.</b></p>
vii	Regular monitoring of ambient air ground level concentration of SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>2.5</sub> & PM <sub>10</sub> and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control 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	—	—	<p>We have installed three nos. of stationary AAQMS station at periphery of the plant for Ambient air quality monitoring.</p> <p>Environment Monitoring Data as part of the six-monthly compliance to MoEFCC is made available at <a href="https://www.adanipower.com/Downloads">https://www.adanipower.com/Downloads</a></p> <p>The ambient air quality monitoring report is attached as <b>Annexure I.</b></p> <p><b>Thus, Complied.</b></p>

	data shall also be put on the website of the company.			
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 completion of the project.	—	—	Completed during construction phase.  <b>Thus, Complied.</b>
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 Quality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance an copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a>	—	—	Completed.  <b>Thus, Complied.</b>

x	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/ Municipal Corporation, urban local Body and the Local NGO, if any, from whom suggestions/representations. If any, receive while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	—	—	Completed. The environment clearance letter will be available in website of Adani Power <a href="https://www.adanipower.com/Downloads">https://www.adanipower.com/Downloads</a> <b>Thus, Complied.</b>
xi	An Environmental Cell comprising of at least one expert in environmental science / engineering, occupational health and social scientist, shall be created at the project site itself and shall be headed by an officer of appropriate superiority and qualification it shall be ensured that the Head 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 competent experienced expert with academic qualification of M.Sc. & M.Phil in Environmental Sciences is appointed. Well laid environmental lab is in place.  <b>Thus, Complied.</b>
xii	The proponent shall upload the status of compliance of			Display board has also been installed at main gate.

	<p>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 (PM2.5 &amp; PM10), SO2, NOX (ambient levels as well as stack emissions) shall display at a convenient location near the main gate of the company in the public domain.</p>	—	—	<p>Recent Environment compliance report will be uploaded in company website.</p> <p><a href="http://www.adanipower.com/Downloads">www.adanipower.com/Downloads</a></p> <p><b>Thus, Complied.</b></p>
xiii	<p>The environment statement for each financial year ending 31 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</p>	—	—	<p>The Environmental Statement Form V is submitted vide our Letter No, REL/EMD/Sept./73 dated 28<sup>th</sup> Sept. 2019.</p> <p>Acknowledgement is attached as <b>Annexure V</b></p> <p><b>Thus, Complied.</b></p>

	Regional Offices at the Ministry.			
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.	—	—	Recent Environment compliance report will be uploaded in company website. <a href="http://www.adanipower.com/Downloads">www.adanipower.com/Downloads</a>  <b>Thus, Complied.</b>
xv	Regional Office of the Ministry of Environment, forest and climate change will monitor the implementation of the stipulated conditions. A complete set of documents including environmental impact Assessment Report and Environment Management Plan along with	—	—	Completed.  <b>Thus, Complied.</b>

	the additional, information submitted from time to time shall be forwarded to the regional office for their use during monitoring. Project proponent will upload the compliance status in their website and update the same from time to time at least six monthly basis Criteria pollutants levels including NOX (from stack & ambient air) shall be displayed at the main gate of the power plant.			
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.	—	—	Completed.  <b>Thus, Complied.</b>
xvii	The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned	—	—	Financial Closure granted on 10 <sup>th</sup> Dec'10. The Project development started after receiving Consent to establish dated 13 <sup>th</sup> Jun'11.



	authorities and the date of start of land development work a commissioning of plant.			<b>Thus, Complied.</b>
xviii	Full cooperation shall be extended to the Scientists/Officers from the Ministry Regional Office of the Ministry at Bangalore / CPCB/ SPCB who would be monitoring the compliance of environmental status.	—	—	Full Cooperation agreed. <b>Thus, Complied.</b>

# Annexure-I

## RAIPUR ENERGEN LIMITED

EFFLUENT TREATMENT PLANT ANALYSIS FOR THE PERIOD OF April 19 - September 19

Month	Parameters	pH	Oil & Grease	Suspended Solid	COD	BOD
	Prescribed limits	5.5-9.0	10 mg/l	100 mg/l	250 mg/l	30.0 mg/l
Apr-19	MINIMUM	7.4	0.1	18.5	76.0	10.0
	MAXIMUM	7.8	0.1	26.2	86.0	12.0
	AVERAGE	7.6	0.1	22.1	80.7	11.3
May-19	MINIMUM	7.5	1.2	9.0	78.0	10.0
	MAXIMUM	8.1	1.3	42.0	85.0	14.0
	AVERAGE	7.7	1.3	22.7	81.0	12.0
Jun-19	MINIMUM	7.9	1.1	16.0	80.0	10.0
	MAXIMUM	8.3	1.2	27.0	82.0	12.0
	AVERAGE	8.1	1.2	21.3	81.0	11.0
Jul-19	MINIMUM	7.2	1.0	17.0	78.0	12.0
	MAXIMUM	7.8	1.2	24.0	84.0	14.0
	AVERAGE	7.5	1.1	20.4	80.7	12.7
Aug-19	MINIMUM	7.4	1.0	15.0	80.0	20.0
	MAXIMUM	7.8	1.2	24.0	90.0	24.0
	AVERAGE	7.5	1.1	19.6	85.3	22.0
Sep-19	MINIMUM	7.4	1.0	18.0	82.0	18.0
	MAXIMUM	7.7	1.2	24.0	84.0	20.0
	AVERAGE	7.6	1.1	21.2	83.0	19.0

Note: 1. Samples were grabbed for pH and 24 hour composite for other parameters.

# RAIPUR ENERGEN LIMITED

SEWERAGE WATER TREATMENT ANALYSIS FOR THE PERIOD OF April 19 - September 19

Month	Parameters	pH	Oil & Grease	Total Residual Chlorine	Suspended Solid	BOD	COD
	Prescribed limits	5.5-9.0	10 mg/l	1.0 mg/l	100.0 mg/l	30.0 mg/l	250 mg/l
Apr-19	AVERAGE	8.1	1.16	0.5	24	22	97
	MIN	7.8	1.10	0.2	20	18	92
	MAX	8.3	1.24	0.6	30	26	102
May-19	AVERAGE	7.9	1.20	0.5	24	20	89
	MIN	7.1	1.10	0.2	18	18	86
	MAX	8.2	1.30	0.6	30	22	92
Jun-19	AVERAGE	8.0	1.26	0.5	23	21	92
	MIN	7.1	1.02	0.4	18	18	88
	MAX	8.2	1.40	0.6	28	22	98
Jul-19	AVERAGE	7.8	1.28	0.5	23	19	89
	MIN	7.4	1.16	0.4	20	16	76
	MAX	8.1	1.40	0.6	28	20	98
Aug-19	AVERAGE	8.1	1.1	0.4	23	20	95
	MIN	7.7	1.06	0.2	20	18	92
	MAX	8.3	1.16	0.6	24	22	98
Sep-19	AVERAGE	8.1	1.07	0.4	23	20	97
	MIN	7.6	1.0	0.2	20	18	96
	MAX	8.4	1.16	0.6	24	22	98

<b>Ambient Air Quality Monitoring</b>							
<b>Parameters</b>	<b>Unit</b>	<b>AAQMS 1 (Doosan Living Area)</b>		<b>AAQMS 2 (Raw Water Pump House)</b>		<b>AAQMS 3 (CHP Area)</b>	
		<b>May-19</b>	<b>Aug-19</b>	<b>May-19</b>	<b>Aug-19</b>	<b>May-19</b>	<b>Aug-19</b>
<b>Particulate Matter &lt;10.0 µm</b>	µm/m <sup>3</sup>	95.41	51.46	96.79	49.98	94.03	12.38
<b>Particulate Matter &lt;2.5 µm</b>	µm/m <sup>3</sup>	29.79	43.58	32.4	24.71	28.42	6.53
<b>Sulphur Dioxide (SO<sub>2</sub>)</b>	µm/m <sup>3</sup>	65.96	74.91	54.29	55.76	25.84	26.69
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>	µm/m <sup>3</sup>	0.3	2.16	14.6	6.93	2.03	2.19
<b>Carbon Monoxide (CO)</b>	mg/m <sup>3</sup>	0.14	0.43	0.12	0.72	0.29	1.31

## Noise Level Monitoring Report Apr-Sep 19

Location	Unit	Period			
		May-19		Aug-19	
		Day	Night	Day	Night
Admin Building	dB(A)	69.9	66.05	70.95	69.15
Field Hostel	dB(A)	54.45	51.45	58.55	55.9
Gate 1 - Main Gate	dB(A)	65.15	62.1	64.65	62.95
Gate 2 - Gaitara Gate	dB(A)	51.85	50.1	54.9	52
Gate 3 - Bhatapara	dB(A)	48.85	46.75	50.05	48.5
Gate 4 - Mura Gate	dB(A)	44.5	41.65	45.6	43.65
Gate 5 - Labour Colony	dB(A)	40.6	39.15	42.85	40.45

## GROUND & SURFACE WATER ANALYSIS REPORT

Sr. No.	Date	Sample	pH	Conductivity	Turbidity	TH (ppm)	Ca H (ppm)	Mg H (ppm)	P-Alka (ppm)	M-Alka (ppm)	Chloride (ppm)
1	Jun-19	Piezometer-1	6.9	605.6	193	280	204	76	0	270	19.9
2		Piezometer-2	7.1	437	18.5	196	152	44	0	168	17.0
3		Piezometer-3	7.2	405	4.04	172	152	20	0	160	22.7
4		Piezometer-4	6.9	737	8.62	332	280	52	0	216	51.1
5		Piezometer-5	7.0	695.9	17.6	272	176	96	0	228	28.4
6		Piezometer-6	7.2	856.9	2.4	328	284	44	0	152	77
7		Raikheda surface water	7.9	2756	242	200	104	96	0	416	542.4
8		Mura Surface water	7.4	1560	50.8	208	80	128	0	180	335.1
9		Bangoli surface water	7.8	162.6	12	80	54	26	0	50	12.78
1	Aug-19	Piezometer-1	6.9	546	21.9	218	148	70	NIL	260	17
2		Piezometer-2	7.7	217	18.6	66	48	18	NIL	80	13
3		Piezometer-3	8.0	245	76.1	64	46	18	NIL	80	21
4		Piezometer-4	7.0	680	9.6	336	288	48	0	208	49
5		Piezometer-5	7.0	695.9	17.6	272	176	96	0	228	28
6		Piezometer-6	7.7	396	2.2	160	96	72	NIL	152	16
7		Raikheda surface water	8.5	337	38.2	78	48	30	8	86	32
8		Mura Surface water	9.0	855.6	60.9	126	70	56	8	78	180
9		Bangoli surface water	8.5	157.8	7.0	66	44	22	4	60	15

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Test Report No. : ALPL/11072019/04-2

dated 11.07.2019

Page 1 of 1

<b>Issued To :</b> M/s GMR Chhatisgarh Energy Ltd. Village-Raikheda, Tehsil-Tilda, Dist.-Raipur (C.G.)-493225 Kind Attention : Mr. Sangram Kanungo Contact No. : 07747013517		<b>Sample Inward No.</b> 1920/HW-439/9-2 <b>Inward Date</b> 05.07.2019 <b>Reference</b> W.O. – 4800149128 <b>Reference Date</b> 09.02.2019	<b>Analysis Start</b> 05.07.2019 <b>Analysis End</b> 11.07.2019 <b>Sample Category</b> Water
<b>Sample Name</b> Ground Water	<b>Sample Source</b> Bore well	<b>Purpose of Analysis</b> Statutory Compliance	<b>Quantity Received</b> 1L
<b>Sample Collected By</b> Anacon representative Mr. Ashish Shahu		<b>Sampling Date</b> 29.06.2019 <b>Sampling Time</b> 02.00 pm	<b>Sampling Location</b> Piezometer-4

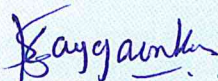
**TEST RESULTS**

S.N.	Test Parameter	Measurement Unit	Test Method	Requirement as per IS 10500 : 2012 (Drinking Water Specifications) Including Amendment No. 2		Test Result
				Acceptable Limit	Permissible Limit #	
1	Arsenic (as As)	mg/l	IS : 3025 (Part 37) : 1988	0.01	No relaxation	BDL (DL-0.01)
2	Lead (as Pb)	mg/l	IS : 3025 (Part 47)	0.01	No relaxation	BDL (DL-0.001)
3	Mercury (as Hg)	mg/l	IS : 3025 (Part 48) : 1994	0.001	No relaxation	BDL (DL-0.0005)
4	Total Chromium (as Cr)	mg/l	IS 3025 (Part 2) : 2004	0.05	No relaxation	BDL (DL-0.03)

**NOTES:** ● Please see watermark "Original Test Report" to confirm the authenticity of this report. ● Results shall be referred to tested sample(s) and applicable to tested parameters only. ● Test report shall not be reproduced except in full without prior written approval of Anacon Labs. ● Liability of Anacon Labs is limited to invoiced amount only. ● Non-perishable and perishable sample(s) shall be disposed off after 30 days and 15 days respectively from the date of issue of Test Report, unless specified otherwise. ● #Permissible limit in absence of an alternate source for drinking water. ● 'mg/l' is equivalent to 'ppm'. ● BDL- Below detection limit. ● DL- DL Indicates detection limit of instrument /method and shall be considered as 'absent'.

**REMARKS:** As requested by the client, sample was tested for above parameters only. Sample complies with IS:10500:2012, for tests conducted, indicating that it is fit for drinking purpose with respect to tested parameters.

Verified by

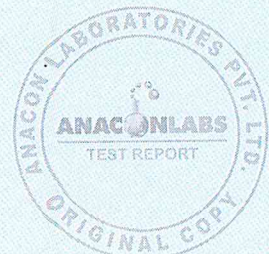


Kavita S. Saygaonkar  
 Technical Manager

Authorized Signatory



Chinmay Garway  
 Director







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Test Report No. : ALPL/11072019/04-3

dated 11.07.2019

Page 1 of 1

<b>Issued To :</b> M/s GMR Chhatisgarh Energy Ltd. Village-Raikheda, Tehsil-Tilda, Dist.-Raipur (C.G.)-493225 <b>Kind Attention :</b> Mr. Sangram Kanungo <b>Contact No. :</b> 07747013517	<b>Sample Inward No.</b>	1920/HW-439/9-3	<b>Analysis Start</b>	05.07.2019
	<b>Inward Date</b>	05.07.2019	<b>Analysis End</b>	11.07.2019
	<b>Reference</b>	W.O. - 4800149128	<b>Sample Category</b>	Water
	<b>Reference Date</b>	09.02.2019		
<b>Sample Name</b> Ground Water	<b>Sample Source</b> Bore well	<b>Purpose of Analysis</b> Statutory Compliance	<b>Quantity Received</b> 1L	
<b>Sample Collected By</b> Anacon representative Mr. Ashish Shahu		<b>Sampling Date</b> 29.06.2019	<b>Sampling Location</b> Piezometer-3	
		<b>Sampling Time</b> 02.00 pm		

## TEST RESULTS

S.N.	Test Parameter	Measurement Unit	Test Method	Requirement as per IS 10500 : 2012 (Drinking Water Specifications) Including Amendment No. 2		Test Result
				Acceptable Limit	Permissible Limit #	
1	Arsenic (as As)	mg/l	IS : 3025 (Part 37) : 1988	0.01	No relaxation	BDL (DL-0.01)
2	Lead (as Pb)	mg/l	IS : 3025 (Part 47)	0.01	No relaxation	BDL (DL-0.001)
3	Mercury (as Hg)	mg/l	IS : 3025 (Part 48) : 1994	0.001	No relaxation	BDL (DL-0.0005)
4	Total Chromium (as Cr)	mg/l	IS 3025 (Part 2) : 2004	0.05	No relaxation	BDL (DL-0.03)

**NOTES:** ● Please see watermark "Original Test Report" to confirm the authenticity of this report. ● Results shall be referred to tested sample(s) and applicable to tested parameters only. ● Test report shall not be reproduced except in full without prior written approval of Anacon Labs. ● Liability of Anacon Labs is limited to invoiced amount only. ● Non-perishable and perishable sample(s) shall be disposed off after 30 days and 15 days respectively from the date of issue of Test Report, unless specified otherwise. ● #Permissible limit in absence of an alternate source for drinking water. ● 'mg/l' is equivalent to 'ppm'. ● BDL- Below detection limit. ● DL- DL Indicates detection limit of instrument /method and shall be considered as 'absent'.

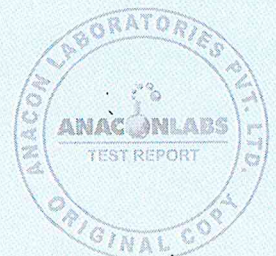
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Verified by

Kavita S. Saygaonkar  
Technical Manager

Authorized Signatory

Chinmay Garway  
Director



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Test Report No. : ALPL/11072019/04-4

dated 11.07.2019

Page 1 of 1

<b>Issued To :</b> M/s GMR Chhatisgarh Energy Ltd. Village-Raikheda, Tehsil-Tilda, Dist.-Raipur (C.G.)-493225 Kind Attention : Mr. Sangram Kanungo Contact No. : 07747013517		<b>Sample Inward No.</b> 1920/HW-439/9-4	<b>Analysis Start</b> 05.07.2019
		<b>Inward Date</b> 05.07.2019	<b>Analysis End</b> 11.07.2019
		<b>Reference</b> W.O. – 4800149128	
		<b>Reference Date</b> 09.02.2019	<b>Sample Category</b> Water
<b>Sample Name</b> Ground Water	<b>Sample Source</b> Bore well	<b>Purpose of Analysis</b> Statutory Compliance	<b>Quantity Received</b> 1L
<b>Sample Collected By</b> Anacon representative Mr. Ashish Shahu		<b>Sampling Date</b> 29.06.2019 <b>Sampling Time</b> 02.00 pm	<b>Sampling Location</b> Piezometer-2

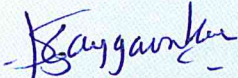
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Verified by

  
Kavita S. Saygaonkar  
Technical Manager

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Chinmay Garway  
Director

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dated 11.07.2019

Page 1 of 1

<b>Issued To :</b> M/s GMR Chhatisgarh Energy Ltd. Village-Raikheda, Tehsil-Tilda, Dist.-Raipur (C.G.)-493225 <b>Kind Attention :</b> Mr. Sangram Kanungo <b>Contact No. :</b> 07747013517		<b>Sample Inward No.</b> 1920/HW-439/9-5	<b>Analysis Start</b> 05.07.2019
		<b>Inward Date</b> 05.07.2019	<b>Analysis End</b> 11.07.2019
		<b>Reference</b> W.O. - 4800149128	
		<b>Reference Date</b> 09.02.2019	<b>Sample Category</b> Water
<b>Sample Name</b> Ground Water	<b>Sample Source</b> Bore well	<b>Purpose of Analysis</b> Statutory Compliance	<b>Quantity Received</b> 1L
<b>Sample Collected By</b> Anacon representative Mr. Ashish Shahu		<b>Sampling Date</b> 29.06.2019 <b>Sampling Time</b> 02.00 pm	<b>Sampling Location</b> Piezometer-5

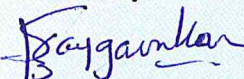
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dated 11.07.2019

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<b>Sample Name</b> Ground Water	<b>Sample Source</b> Bore well	<b>Purpose of Analysis</b> Statutory Compliance	<b>Quantity Received</b> 1L
<b>Sample Collected By</b> Anacon representative Mr. Ashish Shahu		<b>Sampling Date</b> 29.06.2019 <b>Sampling Time</b> 02.00 pm	<b>Sampling Location</b> Piezometer-6

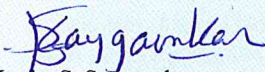
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1	Arsenic (as As)	mg/l	IS : 3025 (Part 37) : 1988	0.01	No relaxation	BDL (DL-0.01)
2	Lead (as Pb)	mg/l	IS : 3025 (Part 47)	0.01	No relaxation	BDL (DL-0.001)
3	Mercury (as Hg)	mg/l	IS : 3025 (Part 48) : 1994	0.001	No relaxation	BDL (DL-0.0005)
4	Total Chromium (as Cr)	mg/l	IS 3025 (Part 2) : 2004	0.05	No relaxation	BDL (DL-0.03)


**NOTES:** ● Please see watermark "Original Test Report" to confirm the authenticity of this report. ● Results shall be referred to tested sample(s) and applicable to tested parameters only. ● Test report shall not be reproduced except in full without prior written approval of Anacon Labs. ● Liability of Anacon Labs is limited to invoiced amount only. ● Non-perishable and perishable sample(s) shall be disposed off after 30 days and 15 days respectively from the date of issue of Test Report, unless specified otherwise. ● #Permissible limit in absence of an alternate source for drinking water. ● 'mg/l' is equivalent to 'ppm'. ● BDL- Below detection limit. ● DL- DL Indicates detection limit of instrument /method and shall be considered as 'absent'.

**REMARKS:** As requested by the client, sample was tested for above parameters only. Sample complies with IS:10500:2012, for tests conducted, indicating that it is fit for drinking purpose with respect to tested parameters.

Verified by

  
 Kavita S. Saygaonkar  
 Technical Manager

Authorized Signatory

  
 Chinmay Garway  
 Director



**ANACON LABORATORIES PVT. LTD.**

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Test Report No. : ALPL/11072019/04-8

dated 11.07.2019

Page 1 of 1

<b>Issued To :</b> M/s GMR Chhatisgarh Energy Ltd. Village-Raikheda, Tehsil-Tilda, Dist.-Raipur (C.G.)-493225 Kind Attention : Mr. Sangram Kanungo Contact No. : 07747013517	<b>Sample Inward No.</b> 1920/HW-439/9-8 <b>Inward Date</b> 05.07.2019 <b>Reference</b> W.O. – 4800149128 <b>Reference Date</b> 09.02.2019	<b>Analysis Start</b> 05.07.2019 <b>Analysis End</b> 11.07.2019 <b>Sample Category</b> Water	
<b>Sample Name</b> Ground Water	<b>Sample Source</b> Bore well	<b>Purpose of Analysis</b> Statutory Compliance	<b>Quantity Received</b> 1L
<b>Sample Collected By</b> Anacon representative Mr. Ashish Shahu		<b>Sampling Date</b> 29.06.2019 <b>Sampling Time</b> 02.00 pm	<b>Sampling Location</b> Piezometer-1

**TEST RESULTS**

S.N.	Test Parameter	Measurement Unit	Test Method	Requirement as per IS 10500 : 2012 (Drinking Water Specifications) Including Amendment No. 2		Test Result
				Acceptable Limit	Permissible Limit #	
1	Arsenic (as As)	mg/l	IS : 3025 (Part 37) : 1988	0.01	No relaxation	BDL (DL-0.01)
2	Lead (as Pb)	mg/l	IS : 3025 (Part 47)	0.01	No relaxation	BDL (DL-0.001)
3	Mercury (as Hg)	mg/l	IS : 3025 (Part 48) : 1994	0.001	No relaxation	BDL (DL-0.0005)
4	Total Chromium (as Cr)	mg/l	IS 3025 (Part 2) : 2004	0.05	No relaxation	BDL (DL-0.03)

**NOTES:** ● Please see watermark "Original Test Report" to confirm the authenticity of this report. ● Results shall be referred to tested sample(s) and applicable to tested parameters only. ● Test report shall not be reproduced except in full without prior written approval of Anacon Labs. ● Liability of Anacon Labs is limited to invoiced amount only. ● Non-perishable and perishable sample(s) shall be disposed off after 30 days and 15 days respectively from the date of issue of Test Report, unless specified otherwise. ● #Permissible limit in absence of an alternate source for drinking water. ● 'mg/l' is equivalent to 'ppm'. ● BDL- Below detection limit. ● DL- DL Indicates detection limit of instrument /method and shall be considered as 'absent'.

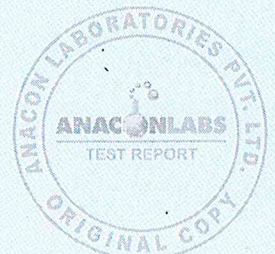
**REMARKS:** As requested by the client, sample was tested for above parameters only. Sample complies with IS:10500:2012, for tests conducted, indicating that it is fit for drinking purpose with respect to tested parameters.

Verified by

Kavita S. Saygaonkar  
Technical Manager

Authorized Signatory

Chinmay Garway  
Director





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Test Report No. : ALPL/11072019/04-6

dated 11.07.2019

Page 1 of 1

<b>Issued To :</b> M/s GMR Chhatisgarh Energy Ltd. Village-Raikheda, Tehsil-Tilda, Dist.-Raipur (C.G.)-493225 <b>Kind Attention :</b> Mr. Sangram Kanungo <b>Contact No. :</b> 07747013517	<b>Sample Inward No.</b>	1920/HW-439/9-6	<b>Analysis Start</b>	05.07.2019
	<b>Inward Date</b>	05.07.2019	<b>Analysis End</b>	11.07.2019
	<b>Reference</b>	W.O. - 4800149128	<b>Sample Category</b>	Water
	<b>Reference Date</b>	09.02.2019		
<b>Sample Name</b> Surface Water	<b>Sample Source</b> Pond	<b>Purpose of Analysis</b> Statutory Compliance	<b>Quantity Received</b> 1L	
<b>Sample Collected By</b> Anacon representative Mr. Ashish Shahu		<b>Sampling Date</b> 29.06.2019	<b>Sampling Location</b> Bang Oli (Dam)	
		<b>Sampling Time</b> 02.00 pm		

## TEST RESULTS

S.N.	Test Parameter	Measurement Unit	Test Method	Requirement as per IS 10500 : 2012 (Drinking Water Specifications) Including Amendment No. 2		Test Result
				Acceptable Limit	Permissible Limit #	
1	Arsenic (as As)	mg/l	IS : 3025 (Part 37) : 1988	0.01	No relaxation	BDL (DL-0.01)
2	Lead (as Pb)	mg/l	IS : 3025 (Part 47)	0.01	No relaxation	BDL (DL-0.001)
3	Mercury (as Hg)	mg/l	IS : 3025 (Part 48) : 1994	0.001	No relaxation	BDL (DL-0.0005)
4	Total Chromium (as Cr)	mg/l	IS 3025 (Part 2) : 2004	0.05	No relaxation	BDL (DL-0.03)

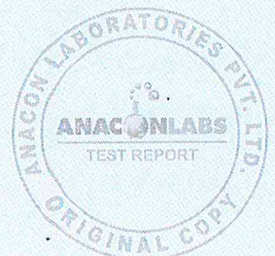
**NOTES:** • Please see watermark "Original Test Report" to confirm the authenticity of this report. • Results shall be referred to tested sample(s) and applicable to tested parameters only. • Test report shall not be reproduced except in full without prior written approval of Anacon Labs. • Liability of Anacon Labs is limited to invoiced amount only. • Non-perishable and perishable sample(s) shall be disposed off after 30 days and 15 days respectively from the date of issue of Test Report, unless specified otherwise. • #Permissible limit in absence of an alternate source for drinking water. • 'mg/l' is equivalent to 'ppm'. • BDL- Below detection limit. • DL- DL Indicates detection limit of instrument /method and shall be considered as 'absent'.

**REMARKS:** As requested by the client, sample was tested for above parameters only. Sample complies with IS:10500:2012, for tests conducted, indicating that it is fit for drinking purpose with respect to tested parameters.

Verified by

Kavita S. Saygaonkar  
Technical Manager

Authorized Signatory

Chinmay Garway  
Director

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Test Report No. : ALPL/11072019/04-9

dated 11.07.2019

Page 1 of 1

<b>Issued To :</b> M/s GMR Chhatisgarh Energy Ltd. Village-Raikheda, Tehsil-Tilda, Dist.-Raipur (C.G.)-493225 Kind Attention : Mr. Sangram Kanungo Contact No. : 07747013517		<b>Sample Inward No.</b> 1920/HW-439/9-9  <b>Inward Date</b> 05.07.2019  <b>Reference</b> W.O. – 4800149128  <b>Reference Date</b> 09.02.2019	<b>Analysis Start</b> 05.07.2019  <b>Analysis End</b> 11.07.2019  <b>Sample Category</b> Water
<b>Sample Name</b> Surface Water	<b>Sample Source</b> Pond	<b>Purpose of Analysis</b> Statutory Compliance	<b>Quantity Received</b> 1L
<b>Sample Collected By</b> Anacon representative Mr. Ashish Shahu		<b>Sampling Date</b> 29.06.2019 <b>Sampling Time</b> 02.00 pm	<b>Sampling Location</b> Raikheda (Talab)

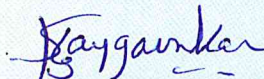
**TEST RESULTS**

S.N.	Test Parameter	Measurement Unit	Test Method	Requirement as per IS 10500 : 2012 (Drinking Water Specifications) Including Amendment No. 2		Test Result
				Acceptable Limit	Permissible Limit #	
1	Arsenic (as As)	mg/l	IS : 3025 (Part 37) : 1988	0.01	No relaxation	BDL (DL-0.01)
2	Lead (as Pb)	mg/l	IS : 3025 (Part 47)	0.01	No relaxation	BDL (DL-0.001)
3	Mercury (as Hg)	mg/l	IS : 3025 (Part 48) : 1994	0.001	No relaxation	BDL (DL-0.0005)
4	Total Chromium (as Cr)	mg/l	IS 3025 (Part 2) : 2004	0.05	No relaxation	BDL (DL-0.03)

**NOTES:** ● Please see watermark "Original Test Report" to confirm the authenticity of this report. ● Results shall be referred to tested sample(s) and applicable to tested parameters only. ● Test report shall not be reproduced except in full without prior written approval of Anacon Labs. ● Liability of Anacon Labs is limited to invoiced amount only. ● Non-perishable and perishable sample(s) shall be disposed off after 30 days and 15 days respectively from the date of issue of Test Report, unless specified otherwise. ● #Permissible limit in absence of an alternate source for drinking water. ● 'mg/l' is equivalent to 'ppm'. ● BDL- Below detection limit. ● DL- DL Indicates detection limit of instrument /method and shall be considered as 'absent'.

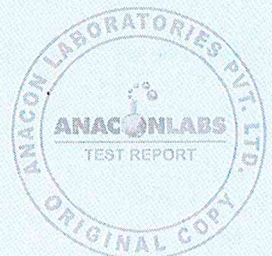
**REMARKS:** As requested by the client, sample was tested for above parameters only. Sample complies with IS:10500:2012, for tests conducted, indicating that it is fit for drinking purpose with respect to tested parameters.

Verified by

  
 Kavita S. Saygaonkar  
 Technical Manager

Authorized Signatory

  
 Chinmay Garway  
 Director





# TEST REPORT

## ANACON LABORATORIES PVT. LTD.

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Test Report No. : ALPL/11072019/04-1

dated 11.07.2019

Page 1 of 1

<b>Issued To :</b> M/s GMR Chhatisgarh Energy Ltd. Village-Raikheda, Tehsil-Tilda, Dist.-Raipur (C.G.)-493225 <b>Kind Attention : Mr. Sangram Kanungo</b> <b>Contact No. : 07747013517</b>		<b>Sample Inward No.:</b> 1920/HW-439/9-1 <b>Inward Date:</b> 05.07.2019 <b>Reference:</b> W.O. - 4800149128 <b>Reference Date:</b> 09.02.2019	<b>Analysis Start:</b> 05.07.2019 <b>Analysis End:</b> 11.07.2019 <b>Sample Category:</b> Water
<b>Sample Name:</b> Surface Water	<b>Sample Source:</b> Pond	<b>Purpose of Analysis:</b> Statutory Compliance	<b>Quantity Received:</b> 1L
<b>Sample Collected By:</b> Anacon representative Mr. Ashish Shahu		<b>Sampling Date:</b> 29.06.2019 <b>Sampling Time:</b> 02.00 pm	<b>Sampling Location:</b> Mura (Talab)

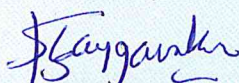
### TEST RESULTS

S.N.	Test Parameter	Measurement Unit	Test Method	Requirement as per IS 10500 : 2012 (Drinking Water Specifications) Including Amendment No. 2		Test Result
				Acceptable Limit	Permissible Limit #	
1	Arsenic (as As)	mg/l	IS : 3025 (Part 37) : 1988	0.01	No relaxation	BDL (DL-0.01)
2	Lead (as Pb)	mg/l	IS : 3025 (Part 47)	0.01	No relaxation	BDL (DL-0.001)
3	Mercury (as Hg)	mg/l	IS : 3025 (Part 48) : 1994	0.001	No relaxation	BDL (DL-0.0005)
4	Total Chromium (as Cr)	mg/l	IS 3025 (Part 2) : 2004	0.05	No relaxation	BDL (DL-0.03)


**NOTES:** ● Please see watermark "Original Test Report" to confirm the authenticity of this report. ● Results shall be referred to tested sample(s) and applicable to tested parameters only. ● Test report shall not be reproduced except in full without prior written approval of Anacon Labs. ● Liability of Anacon Labs is limited to invoiced amount only. ● Non-perishable and perishable sample(s) shall be disposed off after 30 days and 15 days respectively from the date of issue of Test Report, unless specified otherwise. ● #Permissible limit in absence of an alternate source for drinking water. ● 'mg/l' is equivalent to 'ppm'. ● BDL- Below detection limit. ● DL- DL Indicates detection limit of instrument /method and shall be considered as 'absent'.

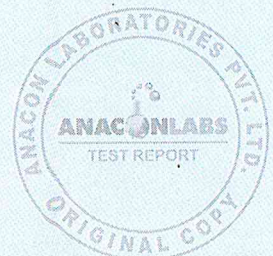
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Verified by

  
Kavita S. Saygaonkar  
Technical Manager

Authorized Signatory

  
Chinnay Garway  
Director





**Ground Water Level Monitoring Report June - 19**

<b>Location Name</b>	<b>Water Level in Mtr.</b>
Near Field Hostel	15.24
Behind Site Office	18.28
Near Bhatapara to Raikheda Road	1.52
Behind Ash Pond	6.07
Behind Bottom Ash Pond No. 2	3.05
Near Raw Water Pump House	2.35



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**Stack Emission Monitoring Report**

<b>Report No.: AN/SE/GMR/2019-20/07</b>		<b>Date: 17.04.2019</b>	
<b>Name and Address of Company :</b>	<b>GMR CHHATTISGARH ENERGY LTD</b> <b>Village : Raikhada, Block Tilda,</b> <b>Raipur-493225 (C.G)</b>		
<b>Sample Description/Type</b>	Stack Emission Monitoring	<b>Sample Collected by</b>	Anacon Representative
<b>Sampling Location</b>	<b>Main Stack (S1)</b>	<b>Sample Quantity/ Packing</b>	Thimble: 1 X 1 No. SO <sub>2</sub> : 30 mL X 1 No. PVC Bottle NO <sub>x</sub> : 25 mL X 1 No. PVC Bottle
<b>Date of Sampling</b>	10.04.2019	<b>Date of Receipt of Sample</b>	11.04.2019
<b>Sampling Procedure</b>	As per Method Reference		
<b>Date of Start of Analysis</b>	12.04.2019	<b>Date of Completion of Analysis</b>	13.04.2019

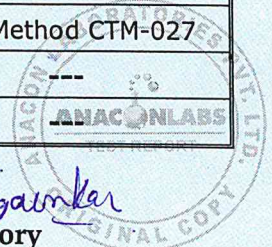
<b>Stack Details</b>			
Stack Identity		S-1	-
Stack height above ground level		275	Meter
Flue can diameter		7.0	Meter
Type of Fuel		Coal	-
Parameter	Unit	Result	Method Reference
Flue gas temperature	°C	125	IS:11255 (Part 3)
Flue gas Velocity	m/s	22.87	IS:11255 (Part 3)
Total gas quantity	Nm <sup>3</sup> /h	2373701.7	IS:11255 (Part 3)
Total Particulate Matter (PM)	mg/Nm <sup>3</sup>	26.3	IS:11255 (Part 1)
Sulphur Dioxide (SO <sub>2</sub> )	mg/Nm <sup>3</sup>	654	IS:11255 (Part 2)
Oxide of Nitrogen (NO <sub>x</sub> )	mg/Nm <sup>3</sup>	225.6	IS:11255 (Part 7)
Mercury (Hg)	mg/Nm <sup>3</sup>	0.002	USEPA-0060
O <sub>2</sub> (%)	%	9.8	Gas Analyser
CO <sub>2</sub> (%)	%	8.5	Gas Analyser
CO (%)	%	306	Gas Analyser
H <sub>2</sub> S	mg/Nm <sup>3</sup>	0.008	EPA Method-15
AMMONIA (NH <sub>3</sub> )	µg /m <sup>3</sup>	ND	EPA Method CTM-027
Water vapour (%)	%	8.2	
Carbon (C %)	%	3.8	

• ND - Not Detected.

The Office is located at P. N. Nagar, Nagpur - 440033 India. Ph. No. (0712) 2242077, 9372404924, Email : ngp@anacon.in  
 Lab : PP-34-35, Food Park, Five Star Estate, MIDC Butibori, Nagpur - 441122. Mob. No. 9373287475, Email : labngp@anacon.in  
 Su. Chemist (Technical (9373287475), Accounts Division (9326960081, 9372960079), Administration (9372960078,  
 9975947666) Email : support@anacon.in. You may also visit us at www.anaconlaboratories.com

Branches : Maharashtra | Chhattisgarh | Madhya Pradesh | Jharkhand | Delhi

*S. Jayaramkar*  
**Authorized Signatory**





**TEST REPORT**

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## Stack Emission Monitoring Report

<b>Report No.:</b> AN/SE/GMR/2019-20/132-1		<b>Date:</b> 29/06/2019	
<b>Name and Address of Company :</b>		<b>GMR CHHATTISGARH ENERGY LTD</b> (Unit 2*685 MW) Village : Raikhada, Block Tilda, Raipur-493225 (C.G)	
<b>Sample Description/Type</b>	Stack Emission Monitoring	<b>Sample Collected by</b>	Anacon Representative
<b>Sampling Location</b>	<b>Main Stack (S2)</b>	<b>Sample Quantity/ Packing</b>	Thimble: 1 X 1 No. SO <sub>2</sub> : 30 mL X 1 No. PVC Bottle NO <sub>x</sub> : 25 mL X 1 No. PVC Bottle
<b>Date of Sampling</b>	19.06.2019	<b>Date of Receipt of Sample</b>	20.06.2019
<b>Sampling Procedure</b>	As per Method Reference		
<b>Date of Start of Analysis</b>	20.06.2019	<b>Date of Completion of Analysis</b>	21.06.2019

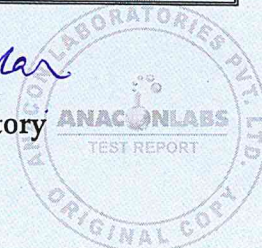
<b>Stack Details</b>			
Stack Identity		S-2	-
Stack height above ground level		275	Meter
Flue can diameter		7.0	Meter
Type of Fuel		Coal	-
Parameter	Unit	Result	Method Reference
Flue gas temperature	°C	125	IS:11255 (Part 3)
Flue gas Velocity	m/s	21.2	IS:11255 (Part 3)
Total gas quantity	Nm <sup>3</sup> /h	2156626.63	IS:11255 (Part 3)
Total Particulate Matter (PM)	mg/Nm <sup>3</sup>	46.5	IS:11255 (Part 1)
Sulphur Dioxide (SO <sub>2</sub> )	mg/Nm <sup>3</sup>	582	IS:11255 (Part 2)
Oxide of Nitrogen (NO <sub>x</sub> )	mg/Nm <sup>3</sup>	209	IS:11255 (Part 7)
Mercury (Hg)	mg/Nm <sup>3</sup>	0.004	USEPA-0060
O <sub>2</sub> (%)	%	12.7	Gas Analyser
CO <sub>2</sub> (%)	%	9.1	Gas Analyser
CO (%)	%	0.085	Gas Analyser
H <sub>2</sub> S	mg/Nm <sup>3</sup>	0.007	EPA Method-15
AMMONIA (NH <sub>3</sub> )	mg/Nm <sup>3</sup>	ND	EPA Method CTM-027
Water vapour (%)	%	7.5	---
Carbon (C %)	%	0.1	---

• ND-Not Detected.

Thanks for utilizing our services.

Chemist: - *SPul*

*Sayankar*  
Authorized Signatory



Head Office : 60, Bajirabhu Nagar, Nagpur - 440033 India. Ph. No. (0712) 2242077, 9372404924, Email : ngp@anacon.in  
Lab : FP 34-35, Food Park, Five Star Estate, MIDC Butibori, Nagpur - 441122. Mob. No. 9373287475, Email : labngp@anacon.in  
Support Helplines : Technical (9373287475), Accounts Division (9326960081, 9372960079), Administration (9372960078)  
Email : support@anacon.in. You may also visit us at www.anaconlaboratories.com

Branches : Maharashtra | Chhattisgarh | Madhya Pradesh | Jharkhand | Delhi

# Annexure-II

## Fly Ash Generation and Utilization for FY 2019-20

Year/Month	Total Ash Generation (Fly Ash in MT)	Fly Ash Utilized (MT)						Total Fly Ash Utilized (MT)	Ash Utilized (%)
		Cement	Brick	Low Lying Area	HCS D	Others	Total		
2019-20	553685	305442	38164	0	0	1189	344795	344795	62.30%
Apr-19	68236	44500	16912	0	0	0	61412	61412	90.00%
May-19	80227	69866	2338	0	0	0	72204	72204	90.00%
Jun-19	82839	66877	2934	0	0	0	69811	69811	84.30%
Jul-19	107244	39959	10450	0	0	0	50409	50409	47.00%
Aug-19	94638	12466	2107	0	0	829	15402	15402	16.30%
Sep-19	120501	71774	3423	0	0	360	75557	75557	62.70%

# Annexure-III

# Green Belt Development

Plantation on 33% land of 850 acres	280 acres
Density of plantation	2500 plants/Hectare
Area required per plant	4.0 SQM
<b>Total No. of plantation completed</b>	<b>230200 No's</b>
2013-14	58000
2014-15	44112
2015-16	70182
2016-17	10000
2017-18	44754
2018-19	1168
2019-20	1984
Survival rate maintained	>80%

# Annexure-IV



Adani power ltd. (APL) has taken over the GMR Chhattisgarh Energy Ltd. (GCEL) from 1<sup>st</sup> July 2019 and the management APL has continued the csr activities which was initiated by GMR Varalakshmi foundation at the same villages from Adani foundation a CSR arm of APL.

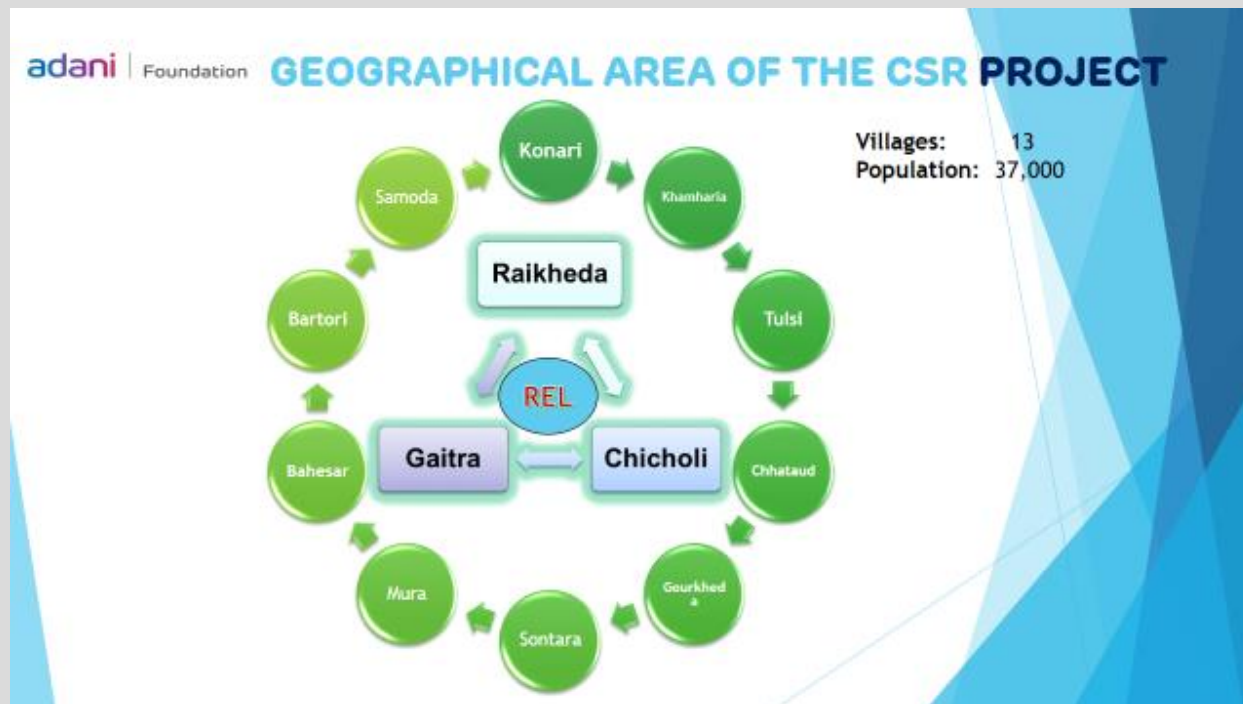
Now the GCEL will be known as Raipur Energen Ltd. (REL)



**Adani FOUNDATION**

**a CSR arm of**

**RAIPUR ENERGEN LIMITED**



## Education Support:

**Navodaya Coaching Centre:** - In view of the Jawahar Navodaya school entrance examination we had established 4 Navodaya Coaching Centers at Raikheda, Gaitara, Tarashiv and Chicholi in 2010. In past 8 years total 31 students from our coaching centers have been secured their seats and currently studying in Jawahar Navodaya School – Mana.



In the current session 69 students are enrolled in all the coaching centers. Out of this, 29 are in fourth standard and 40 are in fifth standard. Based on class performance, 40 bright students of poor and middle class families are screened for special teaching as per Navodaya norms for the current session.

**Digital Literacy Centre (DLC):** DLC had established at the foundation office premises in 2016. In the past 4 years around 500 youths had been taught basic knowledge of computers & MS office.



Presently 2 batches for 3 months new course of advance Tally is continued with 28 students.

## HALF YEARLY REPORT OF THE CSR ACTIVITIES (APRIL 19 TO SEPTEMBER 19)

**Community Libraries:** Community Library had established in 2009-10 in 5 nearby villages located at Raikheda, Bhatpara, Gaitara, Gaurkheda, & Chicholi.



Approx. 11500 elders & children took advantage of the library by reading books, newspapers and magazines. They played carom, chess etc. in last 6 month. Several programs and competitions for children are often organized in the library. 665 students participated in different types of competitions that were conducted.

**PRAYAS:** In view of various job oriented & higher studies competitive exams and to provide career counselling the Prayas centre cum library had established at village Tarashiv in 2012-13. More than 24 students succeeded in various competitive exams in past 7 years from the centre so far.

At present separate batch of coaching for competitive exams like group D railway & NTPC with 29 students is going on. Group discussion along with free books, Newspaper & Rojgar news are available at the Centre for their support.



**Noni Laari a school bus facility for college going girls:** Due to the lack of transportation facility, commuting to the college was difficult particularly for girls. Foundation had addressed this issue and initiated transportation facility exclusively for girls for their further studies from the 6 Project Affected Villages (PAV) since from 2010, After getting an overwhelming response from the village girls, brand new school bus was bought in 2016-17. The girl students who desire to pursue their higher education can opt this facility for going to PG College-Tilda which is about 22 kms. away from PAV.

200 girls from PAV's have completed their graduation from PG College so far.

In this session around 63 girls enrolled from 7 villages of Raikheda, Sontara, Gaitara, Chicholi, Gaurkheda, Tarashiv and Konari and are getting benefit of bus for the PG College Tilda for their further studies.



## Community Health:

**Mobile Medical Unit (MMU):** MMU service was started in 2015 to provide better health services for the railway affected villages. The primary health services to the community are being provided free of cost by team of experienced Doctor, Nurse & compounder by Mobile Medical Unit in 13 villages.

Total 4816 beneficiaries have received the health consultations, out of this 2830 were old age villagers.

The medicines for Diabetes, BP, Asthma and General health problems were distributed to the patients regularly.



**Suposhan Program:** - Suposhan centre was started in the year 2015 with 6 centers located at Bhatapara, Raikheda, Gaitara, Chicholi & Gaurkheda village in the view of proper nutrition to pregnant & lactating mothers.



The door to door visit to the pregnant & lactating mothers made for their proper follow-up on nutrition supplements, immunization and safety precautions during those months. Also encouraging for institutional delivery for the upkeep of infants and mothers. Besides this, to help the government body we are organizing awareness programs in Anganwadi centers with ensured participation of beneficiaries. 130 pregnant & lactating mothers benefited this month.

**Weekly Health Awareness:** Community level health awareness sessions are often organized weekly by the Doctor of MMU.

This month the awareness sessions focused on personal hygiene, seasonal ailments, cervical cancer and precautions, cancer and malnourishment. Several programs on screening of breast cancer was also organized in support with the mission hospital & MMU. More than 570 women from the villages of Raikheda, Chicholi and Gaitara have participated in the program.



**Awareness programs for children Health:** awareness program on diarrhea conducted in. Govt. higher secondary school, & Primary school, middle school in village Raikheda, Gaitara, Chicholi, Gaurkheda. approx. 718 students in 11 schools have been benefited so far.

**Awareness program** on menstruation for **adolescent girls** have also organized at Anganwadi Chicholi, Bhatapara. 173 girls have benefited.

## Sustainable Livelihoods:

**Women SHGs:** 45 SHGs comprised of 517 members are being supported by foundation from past 7 years and they are working on women's social, economic and political development. Simultaneously monthly meetings, record keeping, inter-lending are also being done by them on regular basis.



- Approx.45 SHG meetings conducted with our SHG volunteer's and AF Staff regularly
- The women of SHG were given training on seed treatment at village Raikheda.

**Income Generation Activities (IGA):** 10 SHG's are engaged in IGA and earning income from below activities:

- 1 SHG is making baby sets which are being sold at nearby local hospitals.
- 2 SHG's are making "Ready to Eat" meals.
- 3 SHG's are making Mid-day meals.
- 1 SHG is making different types of fabric & Reckene Bags.
- 1 SGH is making Fresh Food in Anganwadi.
- 2 SHG's are running Utensil Stores.

## Sakasham: adani skill development center

**Tailoring & Production Centre:** This centre had established at the foundation office premises in the year of 2017.

15 USHA advance industrial automatic sewing machines and 15 normal machines was installed at the centre. Proper training on the tailoring works with basic tailoring courses affiliated by govt. women polytechnic college Raipur under their CDTP scheme are being offered to the trainees.



14 women are trained in current session as of now.

15 members are regularly visiting our tailoring cum production centre and learning advance tailoring for their income generation. Various groups have been formed for stitching and specialised training like travel bags, back pack, laptop bags making and designing work in blouse etc.

Safety awareness session also being organized at the sewing center time to time.

**SWA-DAAN:**

To encourage giving back to the society and a feeling of philanthropic within the Youths. Each beneficiaries of college going girls who are availing college bus facility have asked to ensure "SWA-DAN" An initiative to provide free tuition classes to min. 5 students who are studying in primary or middle schools at their nearby houses. Currently 62 college going girls are doing the SWA-DAAN i.e. free tuition classes to approx. 328 students of primary

and middle school.

Under SWA-DAAN, 2 awareness session conducted by SHG women's on "good touch and bad touch" for the primary school children in Chicholi & Bhatapara village.

**EVENTS:**

An exhibition on the occasion of Deepawali organized in REL cafeteria on 25<sup>th</sup> Oct 2019. The products made at our advance tailoring center by group of "Saheli Shashakt Silai Samooh" and Diyas made up from cow dung was available for the sale.

The group has got overwhelming response in the exhibition. Around 78 REL officers have visited at the stall and bought the products.



*Their smile...  
Is our satisfaction...*



**Thank you**

# Annexure-V

adani

Power

28<sup>th</sup> September 2019

Ref. No: REL/EMD/Sept./73

To,

**The Member Secretary,**  
Chhattisgarh Environment Conservation Board,  
Paryavas Bhavan, Sector - 19  
**Naya Raipur (C.G.)**

**Sub.:** Submission of Environmental Statement Report (Form-V) for the financial year 2018-19.

**Ref.:** 1) MoEF Environment Clearance Letter No.: J-13012/62/2008-IA. II (T) dated 9<sup>th</sup> May'2011.  
2) Consent to Operate granted by CECB vide letter no. 242/TS/CECB/2018 dated 4<sup>th</sup> April'2018.

Dear Sir,

This has reference to the above referred subject and clause no. xiii in General Conditions of Environment Clearance Letter and point no. 27 of CTO cited above issued by MoEF & CC, New Delhi. We are hereby submitting Environment Statement Report (Form-V) for the period of April'2018- March'2019.

The unit was not in continuous operation for the FY 2018-19.

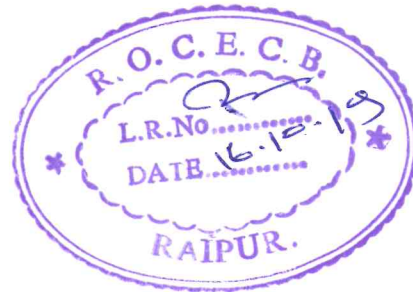
Thanking you,

Your's faithfully,  
**For M/s. Raipur Energen Limited**

**[Rambhav Gattu]**  
**Station Head**

Encl.: As above

CC: The Regional Officer,  
Chhattisgarh Environment Conservation Board, Raipur



**Raipur Energen Limited**  
(Formerly known as GMR Chhattisgarh Energy Limited)  
Village – Raikheda, Block – Tilda  
Raipur 493 225  
Chhattisgarh, India

Tel +91 771 247 2400  
Fax +91 79 2555 7177  
info@adani.com  
www.adani.com

CIN: U40108KA2008PLCo47974

Registered Office: Skip House, 25/1 Museum Road, Bangalore Karnataka – 560025, India



## **ENVIRONMENTAL STATEMENT- 2018-19**

### **FORM - V**

#### **ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31<sup>st</sup> MARCH 2019**

#### **PART - A**

- (i) Name and address of owner/occupier of the industry operation or process. : Mr. Rambhav Gattu.  
Raipur Energen Limited  
(Formerly Known as GMR Chhattisgarh Energy Limited)  
Village: Raikheda, Block: Tilda  
Distt.: Raipur, Chhattisgarh  
PIN: 493225
- (ii) Industry categories : Large scale industry
- (iii) Production capacity : 2 X 685 MW
- (iv) Year of establishment : 2014
- (v) Date of last environmental statement submitted : 11.10.2018

#### **PART - B**

#### **WATER AND RAW MATERIAL CONSUMPTION**

##### **I. Water Consumption (M<sup>3</sup> / Day)**

Process	:	2664.8
Cooling	:	18968.0
Domestic	:	65.4

## ENVIRONMENTAL STATEMENT- 2018-19

SN	Name of product	Process water consumption per unit of product output.
1	Electricity	During the current financial Year 2018-19
		0.00024 m3/KWh

### II. Raw Material Consumption

SN.	Name of raw material	Name of product	Consumption of raw material per unit of output	
			During the Previous financial Year 2017-18	During the current financial Year 2018-19
1	Coal	Electricity	0.641 MT/MWh	0.590 MT/MWh

### PART - C

#### POLLUTION DISCHARGED TO ENVIRONMENT/ UNIT OF OUTPUT (Parameter as specified in the consent issued)

SN	Pollutants	Quantity of pollutants discharged (Ton/day)	Concentrations of pollutants in discharges (mg/Nm <sup>3</sup> )	Percentage of variation from prescribed standards with reason
a	Water	0.00	0.00	Plant is designed for zero discharge
b	Air : PM	6.14	33.34	Within the standards
	SO <sub>2</sub>	138.28	750.60	Communicated with MoEF & CC regarding time of alignment with CEA phasing plan for achievement of new emission standards.

## ENVIRONMENTAL STATEMENT- 2018-19

	NOx	101.47	550.10	Communicated with MoEF & CC regarding time of alignment with CEA phasing plan for achievement of new emission standards.
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During FY 2018-19, plant was not running continuously. Monitoring report of ambient air quality, Ground water quality, Surface water quality, Sound level are being submitted regularly to MoEF & CC, CPCB and CECB. Hydrogeological study conducted during the year 18-19 and reports were submitted along with Six Monthly to MoEF & CC, CPCB and CECB vide our letter no.

### PART - D

#### HAZARDOUS WASTES

#### **AS SPECIFIED UNDER HAZARDOUS WASTES (MANAGEMENT, HANDLING AND TRANS BOUNDARY MOVEMENT) RULES, 2008**

Hazardous wastes	Total quantity (KL)	
	During the previous financial year (2017-18)	During the current financial year 2018-19
a) From process	6.4 kl used oil	9.0 kl used oil
b) From pollution control facility	0.00	0.00

## ENVIRONMENTAL STATEMENT- 2018-19

### PART - E

#### SOLID WASTES

SN		Total Quantity in MT	
		During the previous financial year 2017-18	During the current financial year 2018-19
(a)	From Process (Ash)	266930	517757
(b)	From pollution control facility	0.00	0.00
(c)	(1) Quantity recycled or re-utilized within the unit	0.00	0.00
	(2) Sold	0.00	0.00
	(3) Disposed	266930	517757

Note –In the year 2018-19 plant was not running continuously.

## ENVIRONMENTAL STATEMENT- 2018-19

### PART- F

**PLEASE SPECIFY THE CHARACTERIZATIONS (IN TERMS OF COMPOSITION OF QUANTUM) OF HAZARDOUS AS WELL AS SOLID WASTE AND INDICATE DISPOSAL PRACTICE ADOPTED FOR BOTH THESE CATEGORIES OF WASTES.**

**Hazardous waste:** Only used oil which was generated was collected in MS drum from source; there the drums carrying the used oil through tractor to the hazardous waste storage shed. Finally these used oil disposed to the authorized recyclers.

**Solid waste:** Only fly ash is generated as solid waste in our plant. The same is collected in the fly ash silo; which is then disposed of through bulker to the nearby cement plants and fly ash brick manufacturers. Balance ash (which is not supplied to cement plants and fly ash brick manufacturers) is disposed to our ash ponds through high concentration slurry disposal system.

### PART - G

**IMPACT OF THE POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION**

- i) Fly ash brick manufacturing unit has been set up to utilize the fly ash being generated.
- ii) We have been using fly ash brick for all the construction activities in our plant.
- iii) Extensive tree plantation have been already done, as a part of greenbelt development, which will control the impact of Air Pollution and optimize the ambient temperature of surrounding area.

## **ENVIRONMENTAL STATEMENT- 2018-19**

- iv) We have constructed the rain water harvesting ponds in our plant premises to recharge ground water.
  
- v) Rain water harvesting in the form of conservation of monsoon run off, reuse and recycle of water in the plant has already been started.

### **PART - H**

#### **ADDITIONAL MEASURES / INVESTMENT PROPOSALS FOR ENVIRONMENTAL PROTECTION INCLUDING ABATEMENT OF POLLUTION, PREVENTION OF POLLUTION**

- (1) Adoption of Good House-Keeping practices, in which proper & systematic stacking & movement of construction materials, packing material etc. has been implemented.
  
- (2) All the internal roads have been made pucca in order to reduce dust.
  
- (3) The 03 Nos. Online ambient air quality monitoring systems as well as meteorological monitoring system have been installed which helps us to take corrective action instantaneously in case of any deviation.
  
- (4) STP & ETP has been installed to treat domestic, industrial wastewater respectively.

## ENVIRONMENTAL STATEMENT- 2018-19

### COST PROVISION FOR ENVIRONMENTAL MEASURES FY 2018-19

S. No	Description	Amount in Rs.
1	Solid waste management	3021600
2	House keeping	5446464
3	Green belt development & maintenance	2669975
4	Environment related study	260200
5	Environment Training and Awareness	72712
6	Misc. expenses (celebration of world environment Day, Earth Day, water day etc.)	21986
7	Environment Monitoring	240346
8	Consent/ EC etc.	3000000
	Total	14733283

## **ENVIRONMENTAL STATEMENT- 2018-19**

### **PART - I**

#### **ANY OTHER PARTICULARS OF IMPROVING THE QUALITY OF THE ENVIRONMENT**

1. Training on EMS to all employees and contract labours to create awareness
2. About 1, 82, 000 saplings have been planted in our plant so far.
3. Only vehicles having PUC certificate are engaged by the company.
4. Surface and ground water quality, ground water level is being done in our own laboratory.
5. Full-fledged environmental laboratory has been installed.
6. World environment day has been celebrated in our plant as well as in nearby villages with the help of our CSR team in order to create and promote awareness.
7. We are awarded with ISO 14001, Environment Management System by TUV.



# Annexure-VI

## Vision Document

Raipur Energen Limited, a subsidiary of Adani Power vision is to be a world class leader in businesses that enrich lives and contribute to nations in building infrastructure through sustainable value creation.

Our values, 'Courage, Trust and Commitment', enable us to give back to the society by creating sustainable business value.

**Courage:** we shall embrace new ideas and businesses

**Trust:** we shall believe in our employees and other stakeholders

**Commitment:** we shall stand by our promises and adhere to high standard of business

**Grow with Goodness-** Scale denotes growth. To us, scale is not just about the businesses we are in. It is also about the influence and the change we can spur, our lives we can touch, the communities we can enrich, the businesses we can propel, and the future we can inspire. We have been able to disseminate this goodness by leveraging the size of our operations in multiple nation-critical sectors. We have consciously extended our scale to help India meet its infrastructure development requirements and ensure improved quality of life.

Adani Power Limited (APL), a part of the diversified Adani Group, is the largest private thermal power producer in India. We have a power generation capacity of 12,450 MW comprising thermal power plants in Gujarat, Maharashtra, Karnataka, Rajasthan, and Chhattisgarh and a 40 MW solar power project in Gujarat.

# Annexure-VII

# Central Ground Water Authority

Ministry of Water Resources

Government of India

No. 21-4(118)/NCCR/CGWA/2011- 1840

Dated-

4 DEC 2011

To,  
M/s GMR Chhattisgarh Energy Ltd.  
C-8, Ashoka Ratan, Shankar Nagar,  
Vidhan Sabha Road,  
Raipur, Chhattisgarh

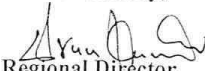
**Sub: Request for Ground Water clearance in respect of M/s GMR Chhattisgarh Energy Ltd., for the proposed 2 x 685 MW Thermal Power Plant at village Raikheda, Block & Tehsil Tilda, District Raipur, Chhattisgarh -reg.**

Sir,

The area where the project falls comes under safe category as per the ground water assessment carried out by Central Ground Water Board. Since the total requirement of ground water is 900 m<sup>3</sup>/day, NOC is not required for ground water withdrawal from Central Ground Water Authority. However, to neutralize the adverse impact of ground water withdrawal that may arise on a long term basis, the industry/ project is advised to undertake the following measures:


1. Ground Water withdrawal shall not exceed the proposed quantity of 900 m<sup>3</sup>/day.
2. All abstraction structures should be fitted with water meter by the industry and monitoring of ground water abstraction to be undertaken accordingly on regular basis, at least once in a month. The data may be submitted on a yearly basis to the Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, Raipur for perusal and records.
3. The industry should adopt and implement artificial recharge measures/rain water harvesting measures for augmenting the ground water resources of the area as per the hydrogeological investigation.
4. The industry shall ensure proper conservation measures, recycling and reuse of waste water after adequate treatment.
5. The industry shall monitor the ambient ground water regime of the area through piezometers and submit the data on a yearly basis to the Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, Raipur for perusal and records.

Yours faithfully,

  
Regional Director

Copy for information to the:

1. Member Secretary, Chhattisgarh Environment Conservation Board, 1-Tilak Nagar, Shiv Mandir Chowk, Main Road, Awanti Vihar, Raipur-492006, Chhattisgarh, with a request to ensure that Rain Water Harvesting and Artificial Recharge methods are being implemented by the firm and quantity of withdrawal is not exceeding 900 m<sup>3</sup>/day.
2. Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, Reena Apartments, 2<sup>nd</sup> Floor, Panchpedi Naka, Raipur 492001, Chhattisgarh. This has reference to your letter No. 35-1/NCCR/Vol-VII-1414 dated 16.11.2011.
3. TS to Chairman, Central Ground Water Board, NH-IV, Faridabad.

  
Regional Director

**Rainwater Harvesting Ponds at our Site**

