

**SIX MONTHLY COMPLIANCE REPORT OF  
ENVIRONMENT CLEARANCE (EC)**

**1980 (3×660) MW THERMAL POWER PLANT**

**At**

**BUJBUJA & DOKARIYA VILLAGE,  
BARHAI & VIJAYRAGHAVGARH TEHSIL,  
KATNI DISTRICT, MADHYA PRADESH**

*Submitted to:*

**Western Regional Office  
Ministry of Environment, Forest & Climate Change  
Central Pollution Control Board, New Delhi &  
Madhya Pradesh Pollution Control Board, Bhopal**

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*Submitted By:*

**Environment Management Department  
Katni Thermal Energy (MP) Ltd.  
Bujbuja & Dokariya Village,  
Barhai & Vijayraghavgarh Tehsil,  
Katni District, Madhya Pradesh**

**PERIOD: April'2020 – September'2020**

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## **Katni Thermal Energy (MP) Ltd.**

### **Introduction:**

**Katni Thermal Energy (MP) Ltd. – KTE(MP)L (formerly known as Welspun Energy Madhya Pradesh Ltd.)** a subsidiary of Adani Infra (India) Limited, is developing 1980 (3x660) MW Coal-based Ultra Supercritical Thermal Power Plant at village Bujbuja and Dokariya, in Barhi and Vijayaraghavgarh Taluka, District Katni, Madhya Pradesh. The Power Project is based on Supercritical, energy efficient & environment friendly technology.

Katni Thermal Energy (MP) Ltd. was granted Environment Clearance & Consent to Establish from MoEF&CC vide letter no. J-13012/98/2010-IA.II (T) dated 01.06.2012 and Madhya Pradesh Pollution Control Board vide letter dated 21.02.2013 respectively. KTE(MP)L also obtained all necessary statutory / mandatory clearance respectively. Land is already in possession of the company.

The total requirement of land for the power project is around 1200 Acre. Coal requirement estimated at 7.8 MTPA Imported Coal will be made available for generating Power. Coal from Indonesia will be brought to Haldia / Paradip or Dhamra Port, from where in will be transported to site.

Water requirement will be 5800 m<sup>3</sup>/hr which will be drawn from the Banasagar Dam which is located at a distance of about 10 km from project site. Water will be brought to the site through a dedicated pipeline.

**KTE(MP)L has completed infrastructure development and enabling works for the Power Plant, such as: Boundary wall, stores, office, & Transmission line ROW/ROU, Power Project pre-construction activities etc.**

KTE(MP) has also been granted Extension in Validity of EC. MoEFCC vide letter dated 05.11.2019.

**Katni Thermal Energy (MP) Ltd.**

**Compliance status on Environment Clearance  
(3x660 MW Katni Thermal Power Project)**

**Ref. Environmental Clearance Letter No. J13012/98/2010-IA.II (T), dated-1/06/2012  
& 05.11.2019.**

Sr. No.	Stipulated Clearance Conditions	Compliance status
<b>A. Specific Conditions</b>		
(i)	Vision document specifying prospective plan for the site shall be formulated and submitted to the Regional office of the Ministry within six months.	Complied. Vision document is already submitted.
(ii)	Scheme for implementation for harnessing solar power within the premises of the plant particularly at available roof tops shall be Formulated and status of implementation shall be submitted to the Regional Office of the Ministry from time to time.	Noted. Feasibility for harnessing Solar power will be explored and accordingly action plan will be made for implementation.
(iii)	A study shall be undertaken through a reputed Govt. Organization/ Agriculture University on the impact on vegetation within 10 km radius of the plant due to fly ash generated and action taken shall be submitted to the Ministry. The study shall be completed within one year of operation of the proposed plant.	Noted. Compliance assured, study will be completed within one year of start of operation.
(iv)	In case source of fuel supply is to be changed at a later stage (now proposed imported coal from Indonesia) the project proponent shall intimate the Ministry well in advance along with necessary requisite documents for its concurrence for allowing the change. In such a case the necessity for re-conduction with the Expert Appraisal Committee.	Noted & compliance assured. Change in the source of fuel supply will be intimated to the Ministry well in advance with necessary requisite documents.
(v)	A wildlife conservation plan shall be formulated in consultation with the Office of the Chief Wildlife Warden and duly vetted by the concerned Chief Wildlife Warden for immediate implementation. The plan shall have an in-built monitoring mechanism.	Noted & compliance assured.
(vi)	Provision for installation of FGD shall be provided for future use.	Noted. Space provision for FGD has been incorporated in to the project layout. As per MoEF&CC's Notification dated 07.12.2015, to comply SO2 and NOx emission standard, FGD and De-NOx system will be implemented. once the project takes off.
(vii)	Coal transportation to plant site shall be undertaken by rail and no road transportation shall be permitted.	Noted.

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(viii)	A detailed study on chemical composition of coal used particularly heavy metal and radio activity contents shall be carried out through a reputed institute and report shall be submitted to Regional Office of the Ministry. Only after ascertaining its radioactive level shall fly ash be utilized for brick manufacturing or supplied to brick manufacturers.	Noted & compliance assured, once the project takes off.
(ix)	The project proponent shall carry out a long term R & D on Boiler efficiency vis-a-vis large variation on ash content of coal and submit its findings to the Ministry at a later stage.	Noted.
(x)	One tri-flue stack of 275m height with flue gas velocity not less than 22 m /s shall be installed and provided with continuous online monitoring equipments for SO <sub>x</sub> , NO <sub>x</sub> and PM10. Mercury emissions from stack may also be monitored on periodic basis.	Noted. The height of chimney will be 275 meter. Online monitoring system is proposed including Mercury emissions.
(xi)	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm <sup>3</sup> .	Noted & compliance assured. Electro Static Precipitator (ESPs) with 99.93% removal efficiency proposed to ensure that particulate emission does not exceed 50 mg/Nm <sup>3</sup> . Low NO <sub>x</sub> burners will be provided.
(xii)	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.	Noted & compliance assured once project takes off.
(xiii)	Utilization of 100% Fly Ash generated shall be made from 4 <sup>th</sup> year of operation. Status of implementation shall be reported to the Regional Office of the Ministry from time to time. Fly ash in the mine void shall be used only after carrying hydro-geological study and permission from the DGMS. Fly ash shall not be used for agriculture purpose	Noted & compliance assured. Proposed to utilize 100% of the fly ash generated from 4 <sup>th</sup> year onwards. In this context, MOU with Prism Cement for supply of fly ash is already submitted.
(xiv)	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized ash shall be disposed off in the ash pond in the form of slurry. 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 law lying area.	Noted & compliance assured once the project takes off.
(xv)	Ash pond shall be lined with HDP/ LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from	Noted & compliance assured. HDPE/LDPE liners are proposed in the ash dyke/pond.

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	getting breached. Ash pond water shall be recalculated and reused.	
(xvi)	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.4% and 14% respectively 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 amendments to environmental clearance condition wherever necessary.	Noted & compliance assured. Change in the source of fuel (Coal Quality) supply will be intimated to the Ministry well in advance.
(xvii)	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 any deterioration is observed specific mitigation measures shall be undertaken and reports / data of water quality monitored regularly and maintained shall be submitted to be Regional Office of the Ministry.	Noted & compliance assured.
(xviii)	No ground water shall be extracted for use in operation of the power plant even in lean season.	Noted & compliance assured. Water will be sourced from the Bansagar Dam through water pipeline.
(xix)	No water bodies (including natural drainage system) in the area shall be disturbed due to activities associated with the setting up / operation of the power plant.	Noted & compliance assured.
(xx)	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 & compliance assured.
(xxi)	Land and Water requirement shall be restricted as per latest CEA norms issued.	Noted, Land requirement will be 1200 acers and water requirement will be 5800 m <sup>3</sup> /hr.
(xxii)	COC of 5.0 shall be adopted.	Noted & compliance assured.
(xxiii)	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.	Noted & compliance assured. Piezometers will be installed and ground water samples will be collected and analyzed as well as results will be furnished to MOEF along with compliance report once the plant takes off.
(xxiv)	Monitoring surface water quality in the area 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 for	Noted & compliance assured once plant gets operational.

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	heavy metals in ground water shall be undertaken.	
(xxv)	Waste water generated from the plant shall be treated before discharge to comply limits prescribed by the SPCB.	Noted & compliance assured.
(xxvii )	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 areas is protected and improved.	Noted & compliance assured.
(xxvii i)	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.	Noted.
(xxix)	A special scheme for upliftment of SC & ST population in the study area shall be formulated and implemented in a time bound manner. The project proponent shall also identify the rights of tribals under existing Laws and ensure its protection and implementation thereof.	Noted.
(xxx)	In addition marginalized farmers indirectly affected by the project shall be identified and special scheme for sustainable livelihood for these marginalized section of the poor villagers whose sustenance are dependent on the land not owned by them but now proposed to be acquired for the proposed project shall be formulated and implemented.	Noted & compliance assured.
(xxxi)	R&R of PAPs shall be completed in a time bound manner and before commissioning of the proposed plant.	Noted & compliance assured. R&R plan is being implemented as approved by M.P. govt.
(xxxii )	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.	Noted & compliance assured.
(xxxii i)	CSR scheme shall be undertaken based on need based 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 employment of local youth after imparting relevant training as may be necessary shall be undertaken as committed.	Noted & compliance assured. A separate budget has been earmarked for CSR activities, as per Need based Assessment Report.

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(xxxiv)	An amount of Rs. 36.04 Crores shall be earmarked as one time capital cost for CSR programme as committed by the project proponent. Subsequently a recurring expenditure of Rs. 7.20 Crores per annum till the life of the plant 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.	Noted & compliance assured.
(xxxv)	It shall be ensured that an in-built monitoring mechanism for the CSR schemes identified is in place and 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. The achievements should be put on company's website.	Noted & compliance assured.
(xxxvi)	Green Belt consisting of 3 tiers of plantations of native species around plant and 100 m width shall be raised. The density of trees shall not less than 2500 per ha with survival rate not less than 80%.	Noted & compliance assured once project takes off.
(xxxvii)	An Environmental Cell shall be created at the project site itself and shall be headed by an officer of appropriate seniority and qualification. It shall be ensured that the head of the Cell shall directly report to the Head of the Organization.	Noted & compliance assured.
<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 the effluents and storm water do not get mixed.	Noted & compliance assured.
(ii)	A sewage treatment plant shall be provided (as application) and the treated sewage shall be used for raising greenbelt/plantation.	Sewage treatment plant is proposed, treated waste water will be used for Greenbelt / Horticulture etc. within the plant premises to maintain the zero discharge system.
(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.	Adequate safety measures will be established in the plant area. Detailed information will be submitted to MoEF&CC.
(iv)	Storage facilities for auxiliary liquid fuel such as LDO/HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Sulphur content in the	Noted & compliance assured.



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	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.	
(v)	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	First Aid Center / facility will be made available during construction phase & operational phase.
(vi)	Noise levels emanating from turbines shall be so controller such that the noise in the work zone shall be limited to 85 dB(A) from source. For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors, etc. shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including loss shifting to non noisy/less noisy areas.	Necessary action has been taken care in plant designed to maintain noise levels within 85 dB(A). The working personnel will be provided with personal protective equipment (PPE's) & periodic audiometric check-up will be carried out.
(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 data shall also be put on the website of the company.	Compliance assured.
(viii)	Provision shall be made for the housing of construction labour (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.	Noted. Local manpower will be hired during construction phase; so no need for provision of Housing & other facilities.
(ix)	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> .	Complied. An advertisement of EC has been published in 2 local newspapers – Haribhoomi and Nai Duniya dated 8 June 2012 which was widely circulated in the region. A copy of the same is already submitted along with compliance report.

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(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. We have already submitted EC Letter to Gram Panchayat – Bujbuja, Dokariya, Zila Panchayat, Municipal Corporation Katni, Katni Development Authority and 2 local NGOs. A copy of the same is already submitted.
(xi)	The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely, SPM, RSPM (PM <sub>2.5</sub> & PM <sub>10</sub> ), SO <sub>2</sub> , NO <sub>x</sub> (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain	Compliance status report is regularly submitted to MoEFCC, CPCB & MPPCB. The same is sent by email also. Last compliance report for the period of April '2019 to September '2019 had been submitted our vide letter no. KTPP/ENV/EMD/EC/MoEF/182/11/19 Date: 21/11/2019 Compliance report uploaded on the company website <a href="https://adaniinfra.com/">https://adaniinfra.com/</a>
(xii)	The environment statement for each financial year ending 31 <sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environment clearance conditions and shall also be sent to the respective Regional of the Ministry by e-mail.	Noted & compliance assured.
(xiii)	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.	Six monthly compliance status report is regularly submitted to MoEFCC, CPCB & MPPCB. The same is sent by email also.  Last compliance report for the period of April '2019 to September '2019 had been submitted our vide letter no. KTPP/ENV/EMD/EC/MoEF/182/11/19 Date: 21/11/2019 Compliance report uploaded on the company website <a href="https://adaniinfra.com/">https://adaniinfra.com/</a>
(xiv)	Regional Office of the Ministry of Environment & Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environment Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall	Noted & compliance assured.

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	be forwarded to the Regional Office for their use during monitoring Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six monthly basis. Criteria pollutants levels including NO <sub>x</sub> (from stack & ambient air) shall be displayed at the main gate of the power plant.	
(xv)	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.	Separate funds have been allocated for implementation of environmental protection measures.
(xvi)	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.	Noted & compliance assured. <b>Financial Closure yet to be achieved and Thermal Power Construction work is yet to start.</b> Thermal Power Pre-construction activities have already completed.
(xvii)	Full cooperation shall be extended to the Scientist/Officers from the Ministry / Regional Office of the Ministry /CPCB / SPCB who would be monitoring the compliance of environmental status.	Noted & compliance assured. Full co-operation will be extended all time.
<b>Additional Conditions (EC Amedment)</b>		
i	As proposed, FGD, Low NO <sub>x</sub> burners with SCR shall be installed to meet the revised flue gas emission norms.	Noted & compliance assured Compliance of Low NO <sub>x</sub> burners with SCR and FGD is proposed to install once the project takes off.
ii	The Environmental Clearance issued 1.6.2012 is based on imported coal. Any change in fuel source/quality requires fresh environmental impact assessment studies for appraising incremental resources, impacts and appropriate mitigation measures, thereof.	Noted & Agreed
iii	Capital budget of 0.5% of capital cost for Greenfield project for implementing activities under Corporate Environment Responsibility as per Ministry's OM dated 01.05.2018, as applicable shall be earmarked and the annual implementation programme along with expenditure shall be submitted. As per the EC, project Cost is Rs.9,009.28 Crores. The details of revised project cost as on date shall submitted to the Ministry within three months.	Noted & agreed Revised Project Cost shall be submitted after Financial Closure. Due to Financial Closure yet to be achieved, revision of project cost is not done yet
iv	Date of financial closure shall be informed to the Ministry. The revised project cost along	Noted. Financial Closure yet to be achieved, the

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	with details of budget allocated for installation of new pollution control equipment such as FGD, De-NOx systems to meet revised emission norms vide Ministry's Notification dated 7.12.2015 shall be submitted.	Ministry will be intimated as the financial closure achieved.
V	The progress of the construction along with the status of implementation of FGD shall also be informed.	Noted & Compliance assured Detailed report on physical activities with FGD status will be submitted, once the project takes off. Construction is yet to be started.