

SIX MONTHLY COMPLIANCE REPORT OF ENVIRONMENTAL CLEARANCE (EC)

**For
1320 (2x660) MW PENCH THERMAL POWER PLANT**

**at
CHAUSARA VILLAGE, CHAURAI TEHSIL,
CHHINDWARA DISTRICT
MADHYA PRADESH**

Submitted to:

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



Submitted By:

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PERIOD: OCTOBER'2020 – MARCH'2021

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Pench Thermal Energy (MP) Limited

Introduction

Pench Thermal Energy (MP) Limited- PTE(MP)L (formerly known as Adani Pench Power Limited) has proposed to set up a 1320 (2x660) MW Coal-based Thermal Power Plant near Chausara Village of Chhindwara District in Madhya Pradesh. The power plant is proposed to be based on supercritical, energy efficient & environment friendly technology.

Adani Power Limited (APL) has signed MoU with Energy Department, Government of Madhya Pradesh on 8th July 2009 for developing a Thermal Power Project of 1320 MW capacity near Chausara, District Chhindwara, Madhya Pradesh. The proposed site is located at approximately 150 km from Nagpur and 30 Kms from Chhindwara.

PTE(MP)L has been granted Environmental Clearances & Consent to Establish from Ministry of Environment & Forest & Madhya Pradesh Pollution Control Board. PTE(MP)L also obtained all necessary statutory / mandatory clearance respectively.

MoEF&CC office order for Name change from Adani Pench Power Limited to Pench Thermal Energy (MP) Limited has been received vide letter dated 18.10.2019. PTE(MP)L has been granted Extension in validity of EC vide letter no. J-13012/30/2010-IA.II (T) dated: 26.12.2019.

PTE(MP)L has tied up imported coal from Indonesia, South Africa etc. to be used as an interim arrangement. Water will be drawn from the Pench Diversion Project which is located at a distance of about 4.5 km from project site. Water will be brought to the site through a dedicated pipeline. Water allocation of 33.29 MCM has been received from Water Resource Department, Govt. of Madhya Pradesh.

PTE(MP)L has completed infrastructure development and enabling works for the Power Plant, such as: Boundary wall, stores, office, admin building, Erector's Hostel (Guest House), Sewage Treatment Plant & Transmission line ROW/ROU & Thermal Power Project pre-construction activities etc.

Pench Thermal Energy (MP) Limited

Compliance status of Environmental Clearance

1320 (2×660) MW Pench Thermal Power Plant

Vide letter No. J 13012/30/2010-IA-II (T) dated 16/10/2012 & dated 26.12.2019

| A. | Specific Conditions | Compliance Status |
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| i. | Vision document specifying prospective plan for the site shall be formulated and submitted to the Regional Office of the Ministry within six months. | Vision Document was submitted along with Compliance Report |
| ii. | Harnessing solar power within the premises of the plant particularly at available roof tops shall be undertaken and status of implementation shall be submitted periodically to the Regional Office of the Ministry. | 68 nos. of Solar Lights already installed along the approach road and nearby villages. Further Solar Lights have been considered during detailed engineering of the Plant Layout. |
| 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 during the plant operation |
| iv | In case source of fuel supply is to be changed at a later (now proposed imported coal from South Africa) the project proponent shall intimate the Ministry well in advance along with necessary requisite documents for its concurrence for allowing the change. In such case necessity for conducting public hearing may be decided by the Ministry in consultation with the Expert Appraisal Committee. | Noted Compliance assured |
| v | Sulphur and ash content in the coal to be used in the project shall not exceed 0.5% and 29% 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 | Noted Compliance assured |

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| A. | Specific Conditions | Compliance Status |
|------|---|---|
| | amendments to environmental clearance condition wherever necessary. | |
| vi | 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. | Wildlife Conservation plan prepared by Consultants in consultation with forest dept. The Conservation plan already submitted along with Compliance report for valuable suggestions & implementation. |
| vii | Provision for installation of FGD shall be provided for further use. | Space has been provided for FGD in the Plant layout. |
| viii | Coal transportation to plant site shall be undertaken by rail and no road transportation shall be permitted | Noted Compliance assured |
| ix | A long term study of radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute. Thereafter mechanism for an in-built continuous monitoring for radio activity and heavy metals in coal and fly ash (including bottom ash) shall be put in place. | Noted Compliance assured |
| x | Continuous monitoring for heavy metals in and around the existing ash pond area shall be carried out by reputed institutes like IIT, Roorkee. | There is no existing Ash Pond. However, compliance to the condition will be made for the proposed Ash Pond. |
| xi | Fly ash shall not be used for mine void filling without prior approval of the DGMS is obtained. | Noted Compliance assured. |
| xii | 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 | This is a standard practice and on-going at all plant units of Adani Power Group. |
| xiii | A stack of 275 m Height with flue gas velocity not less than 22 m/s shall be installed and provided with continuous online monitoring equipments for SO _x , NO _x and PM _{2.5} & PM ₁₀ . Mercury | Stack Height of 275 m is proposed with Online monitoring facility. |

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| A. | Specific Conditions | Compliance Status |
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| | emissions from stack may also be monitored on periodic basis. | |
| xiv | High Efficiency Electrostatic Precipitator (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm ³ | Electrostatic Precipitator (ESPs) with 99.93% removal efficiency proposed to ensure that particulate emission does not exceed 50 mg/Nm ³ . |
| xv | 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. | Water sprinkling proposed in Coal Stock Yard. Dust Extraction System proposed in Crusher House, Transfer Points and Fly Ash Silos. |
| xvi | Utilisation of 100% Fly Ash generated shall be made from 4th year of operation. Status implementation shall be reported to the Regional Office of the Ministry from time to time. | Noted Compliance assured |
| xvii | Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Utilized 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. | Dry Collection & Disposal of Fly Ash proposed. Monitoring will be carried out on regular basis during plant operation |
| xviii | Ash pond shall be lined with HDP / LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached. Ash pond water shall be re circulated and utilized. | Ash Pond is proposed to be lined with LDPE. Safety Measures are being provided at detailed engineering stage itself. Ash Water recirculation is proposed |
| xix | 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 | Noted. Compliance assured. |

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| A. | Specific Conditions | Compliance Status |
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| | mitigation measures shall be undertaken and reports / data of water quality monitored regularly and maintained shall be submitted to the Regional Office of the Ministry. | |
| xx | No ground water shall be extracted for use in operation of the power plant even in lean season | Noted. Compliance assured. |
| xxi | 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. |
| xxii | Minimum required environment flow suggested by the Competent Authority of the State Govt. shall be maintained in the Channel / Rivers (as applicable) even in lean season. | Not Applicable, as the water allocation for the project is from Pench Diversion Dam/ Project and water is sufficient availability in dam. |
| xxiii | Land and Water requirement shall be restricted as per latest CEA norms issued. | Noted. Land and water requirement are limited well within the CEA norms. |
| xxiv | COC of 5.0 shall be adopted. | Noted. Compliance assured. |
| xxv | Regular monitoring of ground water level shall be carried out by establishing a network 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. |
| xxvi | Monitoring surface water quality in the area shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and | Noted. Compliance assured. |

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| A. | Specific Conditions | Compliance Status |
|--------|---|---|
| | drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall be undertaken. | |
| xxvii | Waste water generated from the plant shall be treated before discharge to comply limits prescribed by the SPCB. | Plant is being designed for zero discharge. However, ETP & STP are proposed to meet MPPCB norms. |
| xxviii | The project proponent shall undertake rainwater harvesting measures and shall develop water storage for use in operation of the plant. Rainwater harvesting system shall be put in place which shall comprise of rain-water collection from the built up and open area in the plant premises. Action plan for implementation shall be submitted to the Regional Office of the Ministry. | Rainwater Harvesting is proposed and will be incorporated during detailed engineering and before commissioning of plant / unit. Rainwater harvesting report already submitted along with Compliance Report. |
| xxix | Additional soil for levelling of the proposed site shall be generated within the site (to the extent possible) so that natural drainage system of the area is protected and improved. | Noted. Compliance assured. |
| xxx | 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. Compliance assured once the project take off. |
| xxxi | 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. Compliance assured. |
| xxxii | In addition marginalized farmers indirectly affected by the project shall be identified and special scheme for sustainable livelihood for these | Noted. Compliance assured. |

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| A. | Specific Conditions | Compliance Status |
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| | marginalized section of the poor villagers whose sustenance are dependant on the land not owned by them but falling in the proposed power project shall be formulated and implemented. | |
| xxxiii | R&R of PPAs shall be completed in a time bound manner and before commissioning of the proposed plant. | Power Project along with land and infrastructures transferred by MPEB to Adani Power. No R&R was involved. |
| xxxiv | 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. | Social development activities being carried out under the CSR activities by Adani Foundation. Need based Assessment Study report already submitted along with Compliance Report |
| xxxv | 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. | We have carried out a Need Based Assessment study of nearby villages. Study report has been already submitted to MoEF&CC, New Delhi. Regular CSR activities being carried out by Adani Foundation. |
| xxxvi | An amount of Rs. 30.0 Crores shall be earmarked as one time capital cost of CSR programme as committed by the project proponent. Subsequently a recurring expenditure of Rs. 6.0 Crores per annum till the life of the plant shall be earmarked as recurring expenditure of CSR activities. Details of the activities to be undertaken shall be submitted within six months along with road map for implementation. | A separate budget earmarked for CSR activities in Need based Assessment Study Report already submitted along with Compliance Report |
| xxxvii | It shall be ensured that an in-built monitoring mechanism for the CSR schemes identified is in place and annual social audit shall be got done from the | Noted Compliance assured, once the project take off. |

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| A. | Specific Conditions | Compliance Status |
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| | 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. The achievements should be put on company's website. | |
| xxxviii | Green Belt consisting of 3 tiers of plantation of native species around plant and 50 m width shall be raised. The density of trees shall not less than 2500 per Ha with survival rate not less than 80%. | Green Belt provided in the Plant Layout. |
| xxxix | 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. | We have established Environment Management Department with Senior Management at Corporate level. Site Environment Cell will be created once project construction is started. |
| B. | General Conditions | Compliance Status |
| i | The treated effluents confirming 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. | Plant is designed for zero discharge. Storm Water & Effluent Streams will be provided separately. |
| ii | A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt / plantation. | STP proposed. Treated sewage will be used for Plantation/Green Belt development and maintenance. |
| 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. | Noted. Compliance assured, once the project take off |
| iv | Storage facilities for the auxiliary liquid fuel such as LDO / HFO / LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. | Noted. Compliance assured, once the project take off |

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| A. | Specific Conditions | Compliance Status |
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| | 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. | |
| v | First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase. | Noted. Compliance assured, once the project take off |
| vi | Noise levels emanating from turbines shall be so controlled 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 earplug / earmuffs etc. shall be provided. Workers engaged in noisy area 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. | All equipment will be designed and procured to have noise level of less than 85 dB (A) at a distance of 1 m. |
| vii | Regular monitoring of ambient air ground level concentration of SO ₂ , NO _x , PM _{2.5} , & PM ₁₀ and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exit the prescribed limits, necessary control measures shall be provided immediately. The locations 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. | Noted. Compliance assured, once the project take off |
| 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, | Noted. Compliance assured, once the project take off |

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| A. | Specific Conditions | Compliance Status |
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| | safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. | |
| 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 environment clearance and copies of clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.inc.in . | Complied. It was advertised in local daily News Paper 'Dainik Bhaskar and Jabalpur Express' on 28th October 2012. Advertisement copy already submitted along with Compliance Report of October' 2012 to March' 2013. |
| x | A copy of the clearance letter shall be sent by the proponent to the 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 | Complied, Acknowledged copies already submitted along with Compliance Report of October' 2012 to March' 2013. EC copy also placed on the website - www.adanipower.com |
| 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 (PM2.5 & PM10), SO2, NOx (ambient levels as well as stack emissions) shall be displayed at convenient location near the main gate of the company in the | Six monthly compliance status report is regularly submitted to MoEF&CC, CPCB & MPPCB. The same is sent by email also. Compliance status updated on Company's website. Compliance assured, once the project take off. |

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| A. | Specific Conditions | Compliance Status |
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| | public domain. | |
| xii | The environment statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by email. | Noted. Compliance assured, once the project take off. |
| 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. 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 reports is being submitting to MoEF, CPCB, & MPPCB regularly. The same is sent by email also. Compliance status updated on Company's website. Last compliance report for the period of April'2020 to September'2020 had been submitted vide our letter no.: APL/APPL/EMD/EC/MoEF/192/11/20 dated-12/11/2020. |
| xiv | Regional Office of the Ministry of Environment and Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environmental Management Plan along with additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six | Noted. Compliance assured, once the project take off. |

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| A. | Specific Conditions | Compliance Status |
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| | monthly basis. Criteria pollutants levels including NO _x (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. This cost shall be included as a 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. | Compliance assured. Separate funds earmarked for implementation of environmental protection and details already submitted along with Compliance Report of October'12 to March'2013. |
| 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. | The Thermal Power Project preconstruction activities completed. |
| xvii | Full co-operation shall be extended to the Scientists / Officers from the Ministry / Regional Office of the Ministry / CPCB / SPCB who would be monitoring the compliance of environmental status. | Noted, Full co-operation shall be extended. |
| Additional Conditions (EC Extension) | | |
| i | Revised Project Cost at the current price shall be submitted. The revised cost shall also include the installation of FGD and De-NO _x systems. The cost should separately indicate the amount earmarked for FGD and De-NO _x system. | Noted & Compliance assured. The details regarding revised Project cost with cost of installation of FGD and De-NO _x systems will be submitted after detailed engineering & project construction. |
| ii | As committed, installation of ESP, FGD and De-NO _x systems such as De-NO _x burners along with SCR shall be implemented to meet new emission norms of PM:100 mg/Nm ³ , SO ₂ : 100 mg/Nm ³ and NO _x : 100 mg/Nm ³ and Mercury: 0.03 mg/Nm ³ | Noted & agreed Compliance assured once the project takes off. |

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| A. | Specific Conditions | Compliance Status |
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| iii | The implementation of CSR activities in the surrounding villages along with expenditure shall be submitted to District Collector and the Regional Office of this Ministry. | CSR activities being carried out since 2010. Details CSR report along with expenditure will be submitted, once the project takes off. |
| iv | Copy of fresh Coal and water linkages as and when obtained shall be submitted. | Noted & Compliance assured |
| v | Copy of PPA to be furnished and the zero date of construction shall be intimated. Progress of construction including installation of FGD, De-NOx systems shall be submitted to the Regional Office of the Ministry. Date of commissioning (COD) of units shall be informed to the Ministry. | Compliance assured. Power Purchase Agreement (PPA) is signed Zero date of construction & Progress of construction including installation of FGD, De-NOx will be intimated once the project takes off. |