SIX MONTHLY COMPLIANCE REPORT OF ENVIRONMENTAL CLEARANCES

1X660 MW PANKI THERMAL POWER EXTENSION PROJECT

PANKI, DISTRICT-KANPUR
(UTTAR PRADESH)

Submitted to:

MoEF&CC, New Delhi
Regional office of MoEF&CC, Lucknow
Central Pollution Control Board (CPCB), New Delhi
Regional office of the CPCB, Lucknow.
U P Pollution Control Board, Lucknow.

Submitted by:

Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd.
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(Period: JANUARY 2025 - JUNE 2025)

ZERO DATE for 1x660 MW Panki Extension, Panki: 31st March 2018.

The 1x660 MW Extension unit of Panki has started producing electricity and it's declared Commercial Operation Date is 24.04.2025. **At present, the Trial-Run Operation of the plant is underway by BHEL. BHEL have committed to complete all the finishing / balance works latest by 31.10.2025 (except FGD and SCR).**

Construction of Rail Network in Panki Siding is complete as per the DPR / approved ESP by NCR-PRYJ. Further, as suggested by Railways, the tender for Complete Track Renewal of R&D / Exchange Yard is in advanced stage.

Construction of both the ROBs in Panki Siding is now complete and are operational for public use.

The Construction / Erection Works of 40 MLD Tertiary Treatment Plant (at Bingawan) is now complete. At present, it's Trial-Run Operation by UP Jal Nigam (Urban) is underway.

Sl. No.	Subject of compliance	
	Specific Conditions	**Compliance Status**
(I)	Environmental Management Plan and Project activities shall be implemented with the best available technology to have better operational systems so as to minimize the impact on environment.	• Being complied. STP is working for existing residential area. • Shall be complied. Works of ESP, ETP, Plant STP, AWRS are in progress. • FGD and SCR are being installed for new plant. Work in progress. • Norms of zero discharge & emissions as per prescribed norms shall be followed.
(II)	Point-wise reply to the recommendation of the site visit of the Sub-committee is to be submitted.	Already Submitted.
(III)	In case any STPs are located within 50 km distance from the proposed Project, the treated water from the STPs shall be used in the plant.	• MoU is signed between Panki PTS and Jal Nigam Kanpur. Treated water from Bingawan STP of Jal Nigam shall be used in Power House upon further treatment of the STP effluent through a 40 MLD Tertiary Treatment Plant. • TTP erection /construction works are now complete. The Trial-Run operation are underway by UP Jal Nigam.
(IV)	Plantation should be raised at the rate of 2,500 saplings per hectare. The tree species should be of local variety having hardened and broad leaves types. Plantation shall be preferred by using 2 years old seedlings than new seedlings for better survival of plantation.	• Complied. • In 2018-19 – 13,750 saplings planted. • In 2021-22 – 20,000 saplings planted in Ramaipur, Kanpur. • In 2023-24 – 1500 saplings planted. • In 2024-25 – 3000 saplings planted. • In 2025-26 – 5000 saplings plantation underway.
(V)	Alternate technology may be explored for utilization of fly ash such as road making, etc. by using geo-polymer based technology.	• Alternate technologies are being explored.

(IX)	While implementing CSR, the following shall be adopted:	
A	Proper skill based training/long term livelihood revenue generation be created for enabling women empowerment.	• With the sponsorship of Panki TPS, many approx. 400 students benefitted for skill development in various trades. • Distribution of bicycles to 272 Girl students. • Distribution of 26 Tricycle to specially abled.
B	Computer facilities may be provided in the school along with a trained computer teacher to inculcate computer skill among the youths.	• With the sponsorship of Panki TPS, many approx. 400 students benefitted for Vocational training (through course enrollment in tech.& Eng.colleges) by IIT Kanpur.
C	Water supply provisions shall be made for all the bio-toilets under Swachh Bharat Abhiyan.	• Installation of 24 & 30 Bore well Hand Pumps have been completed. • Construction of 35 Toilets in slum & rural areas in Under progress. • Construction of Solid Waste Management System at Gram Panchayat Baheda, Kanpur in Under progress.
D	Preventive health program may be preferred than the curative health program, such as nutrition development of small children in and around the project.	• Under progress. (08 nos Anganwadi Centers has been provided furnitures, utensils, study materials and gaming materials etc.) • Construction of 30 Nos. Toilets in Schools in under progress.
(X)	Approved action plan prepared by SPCB in respect of Kanpur Critically Polluted Area shall be regularly implemented and monitored the pollution levels in the project and surrounding areas.	• Being complied. • In reference to old closed units, Kanpur action Plan got complied up to the full satisfaction of the District Administration / SPCB.
(XI)	Compliance of EC conditions, E(P) Act, 1986, Rules and MoEF&CC Notifications issued time to time shall be achieved by a qualified an environment officer to be nominated by the Project Head of the Company who shall be responsible for implementation and necessary compliance.	• Being Complied.
(XII)	Cycle of Concentration (COC) of at-least 6.0 shall be achieved by setting up of RO for treating cooling tower blow-down water.	• Being Complied.
(XIII)	MoEF&CC Notification S.O. 3305(E) dated 7.12.2015 shall be implemented with respect to specific water consumption, zero liquid discharge and revised emission standards. The	All the arrangements are being made to achieve parameters as per MoEF&CC notification S.O. 3305 (E) dated 07.12.2015 and shall be complied strictly.

	PM, SO2, NOx and Hg emissions shall not exceed 30mg/Nm^3 , 100 mg/Nm^3 , 100 mg/Nm^3 and 0.03 mg/Nm^3 respectively. The specific water consumption shall not exceed 2.5 m^3 /MWh and zero wastewater discharge shall be achieved.	
(XIV)	MoEF&CC Notification G. S.R 02(E) dated 02.01.2014 regarding use of raw or blended or beneficiated or washed coal with ash content not exceeding 34% shall be complied with, as applicable	All the arrangements are being made to comply the norms stipulated in MoEF&CC notification G. S.R 02(E) dated 02.01.2014 and shall be complied.
(XV)	MoEF&CC Notifications on flyash utilization S.O. 763(E) dated 14.09.1999, S.O. 979(E) dated 27.08.2003, S.O. 2804(E) dated 3.11.2009, S.O. 254(E) dated 25.01.2016 and subsequent amendments shall be complied with.	All the arrangements are being made to comply the norms stipulated in MoEF&CC notification on flyash utilization S.O. 763(E) dated 14.09.1999, S.O. 979(E) dated 27.08.2003, S.O. 2804(E) dated 3.11.2009, S.O. 254(E) dated 25.01.2016 & subsequent amendments and shall be complied.
(XVI)	Separate Environmental Clearance may be obtained for the proposed Township as applicable under EM Notification 2006.	• Not Needed. • No planning for developing new township on our own.
(XVII)	Vision document specifying prospective plan for the site shall be formulated and submitted to the Regional Office of the Ministry within six months.	• Already submitted.
(XVIII)	Harnessing solar power within the premises of the plant particularly at available roof tops shall be carried out and status of implementation including actual generation of solar power shall be submitted along with half yearly monitoring report.	• Installation of Solar Panels on roof top of buildings is under progress. • Total Solar Power capacity is 1500 KW.
(XIX)	A long term study of radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute and results thereof analyzed every two year and reported along with monitoring reports. 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.	• Shall be complied.
(XX)	Online continuous monitoring system for stack emission, ambient air and effluent shall be installed.	• Works for continuous monitoring of stack emission and ambient air are now operational. For effluent, it is in advance stage.

(XXI)	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 30 mg/Nm^3 or as would be notified by the Ministry, whichever is stringent. 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 along with an environment friendly sludge disposal system.	• ESP is operational now.
(XXII)	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.	• Shall be complied accordingly. • In Coal Handling, Water Sprinkling system is operational now. • In Ash handling, installation of dust extraction system (bag filters) is under progress.
(XXIII)	Monitoring of surface water quantity and quality 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 also be undertaken and results/findings submitted along with half yearly monitoring report.	• Being complied.
(XXIV)	A well designed rain water harvesting system shall be put in place within six months, which shall comprise of rain water collection from the built up and open area in the plant premises and detailed record kept of the quantity of water harvested every year and its use.	• Construction of Rainwater Harvesting System is under progress.
(XXV)	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 Natural water body is there inside Plant Area.
(XXVI)	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.	• Surface is levelled. • Further levelling is not needed.

(XXVII)	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Mercury and other heavy metals (As, Hg, Cr, Pb etc.) shall be monitored in the bottom ash. No ash shall be disposed off in low lying area.	• Construction of 02 Nos. Ash Silos is in advance stage. • Bottom Ash monitoring shall be complied.
(XXVIII)	No mine void filling will be under taken as an option for ash utilization without adequate lining of mine with suitable media such that no leachate shall take place at any point of time. In case, the option of mine void filling is to be adopted, prior detailed study of soil characteristics of the mine area shall be undertaken from an institute of repute and adequate clay lining shall be ascertained by the State Pollution Control Board and implementation done in close co-ordination with the State pollution Control Board.	• Shall be complied.
(XXIX)	Fugitive emission of fly ash (dry or wet) shall be controlled such that no agricultural or non-agricultural land is affected. Damage to any land shall be mitigated and suitable compensation provided in consultation with the local Panchayat.	• Shall be complied.
(XXX)	Green Belt consisting of three tier of plantations of native species all around plant and at least 50m width shall be raised. Wherever 50 m width is not feasible a 20 m width shall be used and adequate justification shall be submitted to the Ministry. Tree density shall not be less than 2500 per ha with survival rate not less than 80 %.	• Complied. • In 2018-19 13,750 saplings planted. • In 2021-22 – 20,000 saplings planted in Ramaipur, Kanpur. • In 2023-24 – 1500 saplings planted. • In 2024-25 – 3000 saplings planted. • In 2025-26 – 5000 saplings plantation underway. • Under the EPC contract, BHEL have floated the tender for development of green belt in Ash Dyke area and horticulture in plant as per given standards.
(XXXI)	Green belt shall also be developed around the Ash Pond over and above the Green Belt around the plant boundary.	• In Ash Dyke, already existing Green belt is being maintained. • BHEL have floated the tender for development of green belt in Ash Dyke as well as in Plant.
(XXXII)	The project proponent shall form a well laid Corporate Environment Policy and identify and designate	• Being complied. • Well laid Corporate Environment Policy of UPRVUNL is there with

	responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance conditions stipulated in this clearance letter and other applicable environmental laws and regulations.	designated officers responsible for ensuring adherence to the policy and compliance of EC conditions along with other applicable environmental laws and regulations.
(XXXIII)	CSR schemes identified on need based assessment shall be implemented in consultation with the village Panchayat and the District Administration starting from the development of project itself As part of CSR prior identification of local employment youth and eventual employment in the project after imparting relevant training shall be also undertaken. Company shall provide separate budget for community development activities and income generating programmers.	• Prospects of CSR Activity identified and prepared by IIT Kanpur. • Activities are being implemented in consultation with district Administration and budget has already been approved by BOD.
(XXXIV)	For proper and periodic monitoring of CSR activities, a CSR committee or a Social Audit committee or a suitable credible external agency shall be appointed. CSR activities shall also be evaluated by an independent external agency. This evaluation shall be both concurrent and final.	CSR committee with nominee of district administration (CDO rank) is already monitoring the execution of various CSR activities.
	General Conditions:	**Compliance Status**
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	• Shall be complied accordingly.
II	A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising green belt/plantation.	• STP already installed for colony and is in working condition. • For new plant new STP is in the scope and is being constructed
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.	• Water Sprinkler System is being installed in Coal Stock Yard and Conveyor Gallery • Fire extinguishers have been positioned at all important locations. • Fire Hydrant Lines have been provided at all important locations. • 04 Nos Fire tenders are now operational.

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 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.	• 2x2000 KL Oil Storage Tank have been commissioned. Storage certificate for the same have been obtained from PESO.
V	First Aid and sanitation arrangement shall be made for the drivers and other contract workers during construction phase.	• All arrangements have been made and being complied.
VI	Noise levels emanating from turbines all be so controlled such that the noise in the work zone shall be limited to 85dB(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 shifting to non noisy/less noisy areas.	• Is being complied.
VII	Regular monitoring of ambient air ground level concentration of SO2, NOx, PM2.5 & PM10 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.	• being complied by the EPC contractor i.e. BHEL.
VIII	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.	• Shall be complied accordingly.
IX	Provision shall be made for the housing of construction labour (as applicable) within the site with all necessary infrastructure and facilities	• Complied.

	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.	
X	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 the Website of MoEF&CC at http://envfor.nic.in	• Complied.
XI	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, ZilaParisad / Municipal Corporation, urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	• Complied.
XII	The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM (PM 2.5 & PM10), SO2, NO (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.	• Being complied for EC Status. • Shall be complied for Stack Emissions in near future.
XIII	The environment statement for each financial year ending 31st March in Form V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall	• Shall be complied.

	also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.	
XIV	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to MoEF&CC, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance 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, MoEF&CC.	• Being complied.
XV	The progress of the project shall be submitted to CEA on six monthly basis.	• Being complied.
XVI	Regional Office of the MoEF&CC will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six monthly basis. Criteria pollutants levels including NOx (from stack & ambient air) shall be displayed at the main gate of the power plant.	• Being complied during construction phase. • Subsequent directions shall be complied accordingly during running phase of the project.
XVII	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.	• Being complied during construction phase. • Subsequent directions shall be complied accordingly during running phase of the project.
XVIII	The project authorities shall inform the Regional Office as well as the Ministry regarding the date of	• Shall be complied accordingly.

	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.	
XIX	Full cooperation 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 for proper compliance.
XX	An as built or as completed report on EMP (Environmental Management Plan) to be submitted stating the scope/extent of work envisaged in the EIA along with estimated cost viz a viz the actual completed works and cost incurred. A certificate/ completion certificate accordingly shall have to be submitted before commissioning of TPP.	• Shall be complied.

02/08/2025

Executive Engineer
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PTEP Panki, Kanpur