

Patratu Vidyut Utpadan Nigam Ltd

(A subsidiary of NTPC in Joint Venture with JBVNL)

Ref: PVUNL/Phase-I/EC/8

Date: 23.11.2021

To.

The Member Secretary Jharkhand State Pollution Control Board Township Administration Building HEC Complex, Dhurwa, Ranchi-834004

Sub.: Submission of the Half Yearly Compliance report (01.04.2021 - 30.09.2021) for Environmental Clearance for Patratu Super Thermal Power Project, Phase-I (3 X 800 MW), Patratu.

Ref: MoEF letter ref. no. J-13012/21/2015-IA.I(T) dated 07.11.2017

Enclosed please find the Half yearly Compliance Report (01.04.2021 - 30.09.2021) for Environment Clearance conditions stipulated vide above referred MoEF&CC letter for the Patratu Super Thermal Power Project, Phase-I (3 X 800 MW), Patratu. This is in consent with the competent authority of PVUNL.

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RANCHI

Thanking you,

Yours Sincerely,

R Mukhopadhyay AGM(EMG)

PVUNL

Copy to:

1. MoEF&CC RO: Ranchi

2. CPCB: Kolkata – through mail



Patratu Vidyut Utpadan Nigam Ltd

(A subsidiary of NTPC in Joint Venture with JBVNL)

Ref: PVUNL/Phase-I/EC/8

Date: 23.11.2021

To,

Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change Regional Office (ECZ), Bungalow No. A-2, Shyamali Colony Ranchi – 834002

Sub.: Submission of Half Yearly Compliance report (01.04.2021 - 30.09.2021) for Environmental Clearance for Patratu Super Thermal Power Project, Phase-I (3 X 800 MW), Patratu.

Ref: MoEF letter ref. no. J-13012/21/2015-IA.I(T) dated 07.11.2017

Sir,

Enclosed please find the Half yearly Compliance Report (01.04.2021 - 30.09.2021) for Environment Clearance conditions stipulated vide above referred MoEF&CC letter for the Patratu Super Thermal Power Project, Phase-I (3 X 800 MW), Patratu: This is in consent with the competent authority of PVUNL.

Thanking you,

Yours Sincerely,

R Mukhopadhyay 23/6

AGM(EMG) PVUNL

Copy to:

1. JSPCB, Ranchi

2. CPCB: Kolkata - through mail

Submission of Half Yearly Compliance report (01.04.2021- 30.09.2021) for Environmental Clearance for Patratu Super Thermal Power Project, Phase-I (3 X 800 MW), Patratu.

Rabishankar < RSMUKHOPADHYAY@NTPC.CO.IN >

Sat 27/11/2021 15:39

To: rdkolkata.cpcb@gov.in <rdkolkata.cpcb@gov.in>

Sir,

Enclosed please find the Half Yearly Compliance report (01.04.2021- 30.09.2021) for Environment Clearance conditions stipulated vide MoEF&CC letter MoEF letter ref. no. J-13012/21/2015-IA.I(T) dated 07.11.2017 for the Patratu Super Thermal Power Project, Phase-I (3 X 800 MW), Patratu. This has consent with the competent authority of PVUN.

Thanking you,

Rabishankar Mukhopadhyay AGM(EMG) PVUNL Patratu, Ramgarh Jharkhand-829119

From: Rabishankar

Sent: 27 November 2021 12:03

To: zokolkatta.cpcb@nic.in <zokolkatta.cpcb@nic.in>

Subject: Submission of Half Yearly Compliance report (01.04.2021-30.09.2021) for Environmental Clearance

for Patratu Super Thermal Power Project, Phase-I (3 X 800 MW), Patratu.

Sir

Enclosed please find the Half Yearly Compliance report (01.04.2021- 30.09.2021) for Environment Clearance conditions stipulated vide MoEF&CC letter MoEF letter ref. no. J-13012/21/2015-IA.I(T) dated 07.11.2017 for the Patratu Super Thermal Power Project, Phase-I (3 X 800 MW), Patratu. This has consent with the competent authority of PVUN.

Thanking you,

Rabishankar Mukhopadhyay AGM(EMG) PVUNL Patratu, Ramgarh Jharkhand-829119

Patratu Vidyut Utpadan Nigam Ltd

(A subsidiary of NTPC in Joint Venture with JBVNL)

Half Yearly Compliance Report

(01.04.2021-30.10.2021)

of

Patratu STPP, Phase-I (3X800 MW) Under Construction

As per Environmental Clearance conditions vide MoEF&CC letter no. J-13012/21/2015-IA.I (T) dated 07.11.2017

A. SPECIFIC CONDITION:

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	Sr. No	Conditions	Compliance Status
	İ	Forest land of 431.522 ha is involved in the proposed project. The FC is in the name of M/s Jharkhand Bijli Vitaran Limited. Now, the present PP viz. M/s PVUNL must get this diversion changed in its name before carrying out any work in the diverted forest land under the provisions of Forest (Conservation) Act, 1980.	162.06 acre of land out of 431.22 acre of land had already been de-notified vide notification no. 1042-R dtd. 09.05.1963, Revenue Department, Govt. of Bihar. For change of FC in the name M/s PVUNL for remaining 268.920 acre of land, matter is being expedited with PCCF office, Ranchi Jharkhand. (Note: the land area is in Acre)
)	=:	Fly ash deposits along the water body shall be excavated immediately. The removal of fly ash deposits in the water bodies shall be completed before the onset of next monsoon.	Removal of Fly ash deposition along Bawandhara nallah (adjoining to the ash dyke) was completed in October 2019. Photos submitted was submitted with the previous HYC (01.09.20-31.10.20). Survey of ash deposition along the Nalkari river, from the Bawandhara nallah — Nalkari river confluence to Nalkari river - Damodar river confluence and 500 meters downstream of the Damodar river was carried out. It has been observed that most of the stretches of the riverbed are non-approachable due to lack of road and cover with boulders and bushes/ jungles. Intermittent ash deposition has been found in river bed covered with soil, silt & bushes. Detailed survey report along with action plan was submitted with the previous HYC (01.09.20-31.10.20). For ash removal in first phase, a stretch of 1 km length from Nalkari-Bhawandhara nallah confluence is taken up. Work has been started from 20.10.21.
	≡	If ash in the existing pond is not evacuated as per the recommendations given by previous sub-committee, embankment shall be constructed around the periphery of ash pond. A retaining wall shall also be constructed alongside of the stream to prevent wash off.	The comprehensive work for ash dyke such as construction of gabion wall, spillways, drain on the toe, slope protection, etc. based on the design provided by NTPC-Engineering has been completed. Photos submitted with the previous HYC (01.09.20-31.10.20).

iv	The ash pond shall be covered with sweet soil of sufficient width so that surface runoff	Work Completed	
	can be controlled and also can act as slope stabilization.		
		The comprehensive work of ash dyke stabilization has been completed.	
vi ,	All other measures such as constructing gabian wall, spillways & filters, drains on the toe, slope protection, etc. shall be implemented. Regional Office of the Ministry shall inspect the progress at least once in three months. The status of the ash pond and dredging of ash deposits shall be submitted along with the six-monthly compliance report to Regional Office as well as MoEF&CC, New Delhi.	The comprehensive work for ash dyke such as construction of gabian wall, spillways, drain on the toe, slope protection, etc. based on the design provided by NTPC-Engineering has been completed. Photos submitted with the previous HYC (01.09.20-31.10.20).	
vii	If the breach of ash pond is reported in future, PP shall have to evacuate the total ash from the pond.	Noted and shall be complied	
viii	Construction and demolition waste from dismantling the existing power plant shall be disposed of in accordance with the Construction and Demolition Waste Management Rules, 2016.	Noted and being complied	
ix	Minimum distance of 500m from the HFL of Nalkari river shall be maintained. Ash mound shall be developed in 340 acres and the height of the ash mound shall be restricted to 35 m (in two benches of 20 m and 15 m height each).	Stipulated minimum distance from Nalkari river will be maintained. Ash mound shall be developed as per guidelines.	
X	Ash mound shall be used only in case of emergency. Fly ash utilisation shall be done as per the fly ash notification and its subsequent amendments issued from time to time.	Fly ash utilisation shall be done as per the fly ash notification and its subsequent amendments issued from time to time	
хi	Garland drains along with stone pitching and gabian wall around the ash mound/ existing ash pond shall be constructed so that no wash off is let out into the Nalkari river.	Construction of garland drains and other requisite measures will be constructed around ash mound. For existing ash pond the work has been carried out as in point no. III & VI.	
xii	Action plan for dredging and de-silting of ash deposited along the streams, rivers and reservoirs including Damodar and Nalkari as recommended by Sub-group in their site visit on 28.1.2013 shall be submitted within three months.	There are no reservoirs along flow path of the stream-Nalkari-Damodar river. Action plan for ash removal based on initial survey was submitted to regional office MOEFF&CC – Ranch wide PVUNL letter dated 09.02.2018 and 07.05.2018. Subsequently ash from the Bawandhara nallah was removed in 2019. Further a detailed ash deposition survey along the riverbed has been carried out and an action plan has been submitted to MoEF RO Ranchi vide letter dated 02.09.2020 and along with the previous HYC (01.09.20-31.10.20).	

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xiii	Volume of ash pond and quantity of fly ash shall be assessed. Time bound action plan for evacuating and using fly ash before starting the operations of proposed project.	Estimated quantity of pond ash was approx. 8.5 lakh tons. Agreement for use of approx. 3 lac cum of pond ash for construction of Ranchi ring road, Section –VII, a part of which was lifted. However as stipulated in specific condition no. (iii) the stabilization work of the ash dyke has been completed as in point no. VI.	
xiv	Authenticated as well as primary baseline data for flora, fauna and bio diversity shall be submitted within one month.	The primary baseline data for flora fauna and biodiversity duly authenticated by DFO, Ramgarh has been submitted to MoEF&CC vide PVUN letter dated 17.01.2018.	
XV	Time bound action plan along with financial break-up for implementing CSR activities and public hearing commitments shall be submitted within three months.	Community development (CD) plan based on Need base assessment survey and EC recommendations, approved by DC, Ramgarh and PVUN/NTPC management, submitted with the 4 th HYC. A revised and approved time bound action plan with financial breakup was submitted with HYC report (01.10.20-31.03.21)	
xvi	Action plan (area, species, density, financial allocation) for achieving 33% green belt development of the total project area shall be submitted within three months.	along with the previous HYC (01.04.20-30.09.20).	
xvii	As per the Revised Tariff Policy notified by Ministry of Power vide dated 28.01.2016, project proponent shall explore the use of treated sewage water from the Sewage Treatment Plant of Municipality/local bodies/ similar organization located within 50 km radius of the proposed power project to minimize the water drawl from surface water bodies.	The Minutes of Meeting for the agreement of supply of treated sewage water including lying of cross-country pipeline from Ranchi STP to PSTPP plant, chaired by Secretary, UD&HD, Govt. of Jharkhand, dated 18.07.19 was issued by UD&HD. Accordingly, a draft for agreement between RMC, JUIDCO and PVUN was submitted by PVUNL to GoJ on 7.01.20 for review & comments. However, based on the new order (March 2020) from Ministry of Power, for transportation of sewage water from Municipality STP to a power Plant, a revised draft agreement was submitted to Commissioner, Ranchi Municipal Corporation, GOJ on 27 th March 2020 for review & comments. A follow up meeting with commissioner RMC was held on 06.02.21. Follow up letter send on 04.10.21 for meeting regarding draft agreement in light of CEA guidelines for secondary STP water quality.	
xvii i	issued time to time shall be achieved by a	A qualified environment officer will be deputed. however, an Environment Management group is in place in PVUN Limited to carry out environment related activities in PVUNL	

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xix	issued time to time shall be implemented with respect to specific water consumption, zero liquid discharge and revised emission standards. The PM, SO2, NOx and Hg emissions shall not exceed 30 mg/Nm3, 100mg/Nm3, and	MoEF &CC Notification S.O.3305 (E) dated 07.12.2015 and subsequent notifications shall be complied. High efficiency Electrostatic precipitators (ESP), flue gas desulphurisation (FGD) system, NOx emission control systems to maintain emissions within the prescribed limit will be installed in Patratu STPP. Stipulation on specific water consumption and zero liquid discharge shall also be complied.
xx		MoEF&CC Notifications on fly ash utilization shall be
	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	complied
xxi	obtained for the proposed Township as applicable under EIA Notification 2006.	Environment clearance for the township has been accorded by SIEAA, Jharkhand vide Letter NoEC / SEIAA / 2018-19 / 2088 / 2018 / 52 dated 07/02/2019 Solar streetlights & solar lighting mast – procurement
xxii	surrounding villages as part of CSR activities.	under process.
xxii i	Skill mapping of the Project Affected People (PAF) be carried out on a long term basis for their livelihood generation. A report is to be submitted within 3 months to	The land for PatratuSTPP is transferred by Govt. of Jharkhand to PVUN, so as such there is no Project affected people. However, skill development programs / activities are planned for livelihood generation of local people. Skill mapping is done through Need Assessment Survey by Xavier Institute of Social Science, Ranchi. The Perspective Plan, Suggestions & Conclusion was submitted with 4 th compliance report. Details report is available with PVUN.
xxi v	farming, compost/ vermin culture making and utilization, drip/direct to root irrigation)	
XX V	 While implementing CSR, Women empowerment is important. Therefore, proper skill based training/long term livelihood revenue generation be created for all them. Computer facilities may be provided in the school along with a trained computer teacher to inculcate computer skill among the youths. Water supply provisions shall be made for all the bio-toilets under Swachh Bharat Abhiyan. 	nearby villages. In 1st phase 30 no. of computers were given to Patratu College. 64 computers to Govt. schools were provided. Water through tankers supplied to 10 panchayats (the adjacent villages) twice a day for a period of 2 months during summer season. 30 nos. of medical camps were organized in FY

		 Preventive health programme may be preferred than the curative health programme such as nutrition development of small children in and around the project. 	years training on Electrical & Fitter trade & Short- term course to 29 youths were also imparted on electrician & fitter.
Will all the state of the state	xx vi		Vision document Submitted along with 1st half yearly compliance report.
	Xx vii	Harnessing solar power within the premises of the plant particularly at available roof tops shall be carried out and status of implementation including actual	implementation and actual generation of solar power will be submitted after construction and operation of
	xx viii	heavy metals contents on coal to be used shall be carried out through a reputed institute and results thereof analysed every two year and reported along with	Heavy metals and radioactivity for coal samples from Banhardi coal block assigned for Patratu SSTP Phase-I has been carried out and submitted along with EIA report. Further long-term study on heavy metals and radioactivity contents in coal and ash will be carried out through reputed institute periodically during the operational phase of the plant.
	xxi x		Online continuous monitoring system for stack emission, ambient air and effluent shall be installed during operational phase of the plant.
	xx x	(ESPs) shall be installed to ensure that particulate emission does not exceed 30 mg/ Nm3 or as would be notified by the Ministry, whichever is stringent. Adequate	High Efficiency Electrostatic Precipitators (ESP) will be installed in order to comply with particulate emission norms. Dust extraction and water spray systems are included in the design of the plant to suppress/avoid dust emissions from coal & ash handling areas along with suitable sludge disposal systems.
	xx xi	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. Already envisaged in Technical specification.
	xx xii	quality shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry	Surface water from Nalkari river/Patratu dam is being used for construction of the plant. Quality of surface water from upstream and downstream of Nalkari river and Bawandhara nallah is being monitored. Ground water sample is collected from a borewell located

	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.	outside and adjacent to plant area. Report of the surface and ground water analysis is placed as Annexure-III. Quantity of surface water to be used for operation will be provided during operational phase of the plant.
xx xiii	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.	Rainwater harvesting system has been envisaged in the design of the plant and will be implemented. Records shall be maintained during operation phase of the plant.
xx 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.	The stipulation will be complied during both the construction as well as operation phase of the plant.
XX XV	Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.	Additional soil for leveling of the proposed site shall be done from within the sites with all necessary precaution to protect natural drainage system of the area.
xx xvi	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 of in low lying area	Fly ash shall be collected in dry form and stored in intermediate and main silos for direct supply of dry ash to the potential users. No ash will be disposed off in low lying areas. Periodic monitoring of mercury and other Heavy metals (Ag, Hg, Cr, Pb etc.) shall be conducted in the bottom ash during operational phase of the plant.
xx xvii	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.	
xx xvii i	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.	
xx xix	Green Belt consisting of three tiers of plantations of native species all around plant and at least 50 m width shall be raised. Wherever 50 m width is not feasible a 20 m width shall be raised 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%.	
xl	Green belt shall also be developed around the Ash Pond over and above the Green Belt around the plant boundary.	Green belt will be developed around the ash mound during operational phase of the plant.
xli	well laid Corporate Environment Policy and identify and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance	A Corporate environment Policy has been submitted with EIA report. An Environment Management group (EMG) having sufficient manpower will be formed to ensure adherence to the policy and compliance with all statutory requirements during operational phase of the plant.
xlii	CSR schemes identified based 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 employable 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 programs.	All the CD activities are being implemented in consultation with local representatives & district administration. Total number of local youth identified for training submitted with previous HYC (01.03.2020 – 30.09.2020). Expenditure on CD activities is given in Annex. – IV
xliii	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.	The project is under construction and is expected to be completed by 4 th quarter of 2023. During the construction phase, community development activities are being executed. CSR activities will be taken up during operation/revenue earning phase of the project. However, a CSR Committee has been constituted vide PVUNL board resolution dated 10.06.2020 for taking up future CSR activities. Document submitted with HYC (01.03.2020 – 30.09.2020)

B. GENERAL CONDITIONS

Sr. No.	CONDITIONS	Compliance status
	prescribed standards only shall be re-circulated and reused within the plant. Arrangements shall be made that effluent and storm water does not	effluents conforming to the prescribed standards.
	applicable) and the treated sewage shall be used for raising greenbelt/plantation.	All sewage emanating from plant will be treated in a sewage treatment plant. The treated sewerage water conforming to prescribed standards shall be utilized for plantation and raising green belt to the extent possible.

Adequate firefighting system to check/ minimize iii Adequate safety measures shall be provided in fire in coal stockyard and entire power station the plant area to check/ minimize spontaneous including all the auxiliaries and buildings will be fires in coal yard, especially during summer implemented in the plant. Copy of these measures season. Copy of these measures with full details along with location plant layout shall be submitted with full details will be submitted after to the Ministry as well as to the Regional Office of commissioning of the system the Ministry. Storage facilities for auxiliary liquid fuel LDO/HFO iv Storage facilities for auxiliary liquid fuel such as LDO/ HFO/ LSHS shall be made in the plant area are designed conforming to the safety standards. Sulfur content in the liquid fuel to be used in the in consultation with Department of Explosives, plant will not exceed 0.5%. Disaster management Nagpur. Sulphur content in the liquid fuel will not plan for the plant has been prepared. 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. First Aid and sanitation arrangements shall be All arrangements related to first aid and sanitation made for the drivers and other contract workers for workers during construction phase of the during construction phase. project have been kept under the scope of EPC contractor. vi Noise levels emanating from turbines shall be so Design specification for the equipment has been controlled such that the noise in the work zone made to comply with the stipulation. Personal shall be limited to 85 dB(A) from source. For protective equipment has been arranged through people working in the high noise area, requisite contractors during construction phase. The personal protective equipment like earplugs/ear workers in high noise area will be provided with muffs etc. shall be provided. Workers engaged in appropriate ear protection devices during air operation phase. area. turbine noisy areas such as compressors etc shall be periodically examined Periodic examination and necessary treatment of to maintain audio metric record and for treatment the workers during operation phase shall be done for any hearing loss including shifting to non-as stipulated. noisy/less noisy areas. vii Regular monitoring of ambient air ground level Ambient air ground level concentration of SO2, concentration of SO₂, NOx, PM2.5 & PM10 and NOx, PM2.5 & PM10 and Hg around the Hg shall be carried out in the impact zone and construction site of the plant is being measured records maintained. If at any stage these levels monthly basis from September 2020. The analysis are found to exceed the prescribed limits, necessary control measures shall be provided result is placed in Annexure III. immediately. The location of the monitoring Other stipulation will be complied during stations and frequency of monitoring shall be operational phase of the plant. 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. viii Utilization of 100% Fly Ash generated shall be Ash utilization in compliance with various made from 4th year of operation. Status of stipulations shall be carried out during operational implementation shall be reported to the Regional phase of the project. The status of ash utilization shall be submitted to regional office of the Ministry Office of the Ministry from time to time. during operational phase. Provision shall be made for the housing of Necessary infrastructure & facilities such as construction labour (as applicable) within the site housing, sanitation, toilet, medical facilities, safety, with all necessary infrastructure and facilities drinking water supply etc. are provided to such as fuel for cooking, mobile toilets, mobile construction labour through EPC contractor. STP, safe drinking water, medical health care, PVUNL ensures effective compliance of the said crèche etc. The housing may be in the form of stipulations

	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 The information on accord of Environmental in the vernacular language of the locality clearance by MOEF&CC was published in widely concerned within seven days from the date of this circulated newspapers in the region namely: clearance letter, informing that the project has 1 Times of India (English) dated 13.11.2017. been accorded environmental clearance and 2 Hindustan (Hindi) dated 14/11/2017 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.
	A copy of the clearance letter shall be sent by the Copy of environmental clearance letters were proponent to concerned Panchayat, ZilaParisad/submitted to concerned panchayats, zila parishad Municipal Corporation, urban local Body and the on 30.01.18. Local NGO, if any, from whom suggestions/The environmental clearance letter is also 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.
XII	The proponent shall upload the status of The Half yearly compliance of environmental compliance of the stipulated environmental conditions is being submitted to regional office clearance conditions, including results of (ECZ) MoEFF & CC, Ranchi, JSPCB, CPCB monitored data on their web site 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), S02, NOx (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.
xiii	The environment statement for each financial The environment statement for each financial year year ending 31st March in Form-V as is ending 31st March in Form-V will be submitted to mandated to be submitted by the project the Jharkhand State Pollution control proponent to the concerned State Pollution Board(JSPCB) and will also be put on website of Control Board as prescribed under the the company during operational phase of 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.
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.

χV	The progress of the project shall be submitted to CEA on six monthly basis.	Noted and being complied.
	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 upload 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.	
		equipment/ system as on 31.03.21 is placed in Annexure –V.
	Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the	Date of financial closure- 30.10.2017. Date of final approval of the project- 07.11.2017. Date of start of land development-19.06.2018 Other dates will be intimated as and when the stipulated activities are initiated/ completed.
xix		Full cooperation shall be extended to the Scientists/Officers from the Ministry/Regional office of the ministry at Ranchi/CPCB/Jharkhand SPCB during monitoring the compliance of environmental status.
	An as built or as completed report on EMP to be submitted stating the scope/ extent of work envisaged in the EIA along with estimated cost vis-à-vis the actual completed works and cost incurred. A certificate/ completion certificate accordingly, shall have to be submitted before commissioning of the TPP.	
	The Ministry reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction. The Ministry may also impose additional environmental conditions or modify the existing ones, if necessary.	
xxii	The environmental clearance accorded shall be valid for a period of 7 years from the date of issue of this letter to start operations by the power plant.	
xxiii	Concealing factual data or submission of false, fabricated data and failure to comply with any of the conditions mentioned above may result in	

	withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	
	In case of any deviation or alteration in the project proposed including coal transportation system from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.	
xxv	The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.	
	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	
	This issues with the approval of the Competent Authority.	

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Annexure - I

Plantation on 4.3 hector of land through forest department, Ramgarh



कार्यालय:-वन प्रमंडल पदाधिकारी, रामगढ़ वन प्रमंडल, रामगढ़।

(रांची रोड नियर बी.आर.एल. गेट, पो0-मरार, जिला-रामगढ़ पिन-829117)

Email id - dfo-ramgarh@gov.in

जहाँ है हरियाली वहाँ है खुराहाली

पत्रांक <u>23</u>2 /रामगढ़, दिनांक <u>9</u>802 रि१०२

सेवा में,

Shri Rabi Shankar Mukhupadhyay AGM (EMG) Patratu Vidyut Utpadan Nigam Limited Utility Building, Po-PTPS Patratu, Dist-Ramgarh (Jharkhand)-829119

विषय :- PVUNL के अन्तर्गत वन विभाग (रामगढ़ वन प्रमंडल, रामगढ़) के द्वारा कार्यान्वित की जाने वाली 4.30 है0 के वृक्षारोपण के संबंध में।

प्रसंग :- इस कार्यालय का पत्रांक-908 दिनांक 09.07.2020 एवं पत्रांक-1858 दिनांक 23.12.2020 एवं वन क्षेत्र पदाधिकारी, रामगढ़ का पत्रांक-21 दिनांक 08.02.21

महाशय.

उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में सूचित करना है कि PVUNL के अन्तर्गत वन विभाग (रामगढ़ वन प्रमंडल, रामगढ़) के द्वारा कार्यान्वित की जाने वाली 4.30 है0 के वृक्षारोपण कार्य का अग्रिम कार्य प्रगति पर है।

अतः अग्रिम एवं समापन कार्य की राशि विमुक्त किया जाय।

आपका विश्वासी,

वन प्रमंडल पदाधिकारी, रामगढ

7

Annexure - II

Consent from DFO, Ramgarh for planation as depository work

कार्यालय:-वन प्रमंडल पदाधिकारी, रामगढ़ वन प्रमंडल, रामगढ़।

(रांची रोड नियर बी.आर.एल. गेट, पो0-मरार, जिला-रामगढ़ पिन-829117)

Email id - dfo-ramgarh@gov.in



पत्रांक 16 4 0 /रामगढ़, दिनांक 5/10/21

सेवा में,

Shri Rabi Shankar Mukhupadhyay AGM (EMG) Patratu Vidyut Utpadan-Nigam Limited Utility Building, Po-PTPS Patratu, Dist-Ramgarh (Jharkhand)-829119

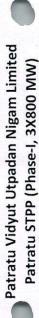
विषय :- वितीय वर्ष 2021–22 में PVUNL के अन्तर्गत वन विभाग (रामगढ़ वन प्रमंडल, रामगढ़) के द्वारा कार्यान्वित की जाने वाली वनरोपण स्थल का विशिष्ट प्राक्कलन तैयार प्रस्ताव भेजने के संबंध में।

महाशय, उपर्युक्त विषयक प्रसंगाधीन पत्र के आलोक में सूचित करना है कि वितीय वर्ष 2021—22 में PVUNL के अन्तर्गत वन विभाग (रामगढ़ वन प्रमंडल, रामगढ़) के द्वारा कार्यान्वित की जाने वाली वनरोपण स्थल का विशिष्ट प्राक्कलन तैयार कर प्रस्ताव भेजी जा रही है।

		कुल :-	42.40	15780205.00	34778988.00
7	क कि ज ह	जयनगर	1.90	1006815.00	3388820.00
6		हफुआ	10.00	2836856.00	5865960.00
5		जयनगर	1.50	676281.00	3026330.00
4		किरीगढ़ा	6.00	1960213.00	4669761.00
3		जयनगर	5.00	1986260.00	4615920.00
2	व्यरोपण (Barbed	टेरपा	12.00	3391950.00	6580826.00
1 भू-संरक्षण एवं	पतरातु	6.00	3921830.00	6631371.00	
क्र. सं.	योजना का नाम	स्थल	रकवा (हे. में)	अग्रिम कार्य की राशि	कुल दस वर्षीय राशि

अतः अनुरोध है कि अग्रिम कार्य का कुल रू. 1,57,80,205 / – का चालान के माध्यम से कोषागार के वन प्रेषण लोक लेखा (प्राप्तियां) शीर्ष 8782 में जमा कराना सुनिश्चित करें, ताकि प्राक्कलन के अनुसार कार्य पूर्ण कराया जा सके।

आपका विश्वासी,



Annexme-III

APRIL'21-SEPTEMBER'21

Tested & Analised by Shiva Test House, Patna

Recognised as Environmental Laboratory by MoEFCC, GOI, by Deptt. Of Industry, Forests & Environment, Govt. of Bihar and State Pollution Control Board & Accredited by NABL

Original Test Report are with PVUNL

					Ambie	Ambient Air Quality	ality											Ambient !	Ambient Noise Level
location		PM10	÷			PM	PM2.5				502			Ž	NO2		H		
	DI	D2	D3	Avg.value	01	D2	D3 A	Avg.value	D1	D2	D3 A	Avg.value	D1	D2	D3 Avg.	Avg.value D1	Avg.value	Day Time	Night Time
Open Storage Yard (West Corner)	74.4	73.0	88.0	78.4	47.3	44.1	50.2	47.2	11.4	13.2	9.7	11.4	29.6	316	26.1 29	29.1	BDI	67.3	57.6
Vorth Corner, Corridor for Transmission Line	75.3	80.3	85.6	80.4	48.8		50.8	48.2	9.7	10.3	10.8	10.3	25.2	-		26.0	BDL	63.7	51.4
South Corner, Railway Siding	70.0	75.6	74.0	73.2	41.4	39.7	43.4	41.5	12.0	11.1	12.9	12.0	30.8	34.7	22.2 29	29.2	BDL	61.9	49.6
East Corner, Railway Siding	75.2	81.8	83.8	80.3	45.0	48.0	50.8	47.9	11.4	11.9	7.6	11.0	34.0	30.3	26.1 30	30.1	BDL	66.1	50.6
								COUL	D BE DO	NE DUE	TO COVID	COULD BE DONE DUE TO COVID SITUATION							
Open Storage Yard (West Corner)	62.6	67.0	76.8	8.89	34.1	39.2	43.8	39.0	9.6	0.6	10.4	2.6	13.5	22.0	26.0 20	20.5	BDL	63.9	50.6
North Corner, Corridor for Transmission Line	8:59	70.1	74.7	70.2	42.6	39.2	44.3	42.1	9.1	9.7	10.3	7.6	23.8	22.0	28.0 24	24.6	BDL	9.19	49.4
South Corner, Railway Siding	61.1	0.99	64.6	63.9	36.1	34.7	37.9	36.2	11.4	10.5	12.1	11.3	29.1	32.8	21.0 27	27.6	BDL	64.8	53.1
East Corner, Railway Siding	65.7	71.4	73.2	70.1	39.3	41.9	44.3	41.8	10.8	11.3	9.1	10.4	32.1	28.6	24.6 28	28.5	BDL	63.1	50.5
Open Storage Yard (West Corner)	56.2	60.2	0.69	58.5	30.6	35.2	39.4	32.3	8.0	7.5	9.8	9.8	11.2	18.2	21.6 23	23.3	BDL	65.1	55.9
North Corner, Corridor for Transmission Line	59.1	63.0	67.1	61.8	38.3	35.2	39.9	35.1	7.6	8.0	8.5	8.0	19.8	18.2	73.2	17.0	BDL	63.9	51.4
South Corner, Railway Siding	54.9	59.3	58.1	63.1	32.5	31.2	34.0	37.8	9.4	8.7	10.1	8.0	24.1	27.2	17.4 20	20.4	BDL	62.8	52.8
East Corner, Railway Siding	29.0	64.2	65.8	63.0	35.3	37.6	39.9	37.6	9.0	9.3	7.6	9.8	59.9	23.8	20.4 23	23.6	BDL	9.09	51.9
												The state of the s		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Series and Series			
Open Storage Yard (West Corner)	57.1	61.1	70.0	62.8	31.1	35.8	40.0	35.6	8.1	9.7	8.7	8.1	11.4	18.5	21.9 17	17.2	BDL	62.7	58.6
North Corner, Corridor for Transmission Line	0.09	63.9	68.2	64.0	38.9	35.8	40.5	38.4	7.7	8.2	8.6	8.2	20.1	18.5	23.6 20	20.7	BDL	62.4	55.1
South Corner, Railway Siding	55.8	60.2	59.0	58.3	33.0	31.6	34.6	33.1	9.6	8.8	10.2	9.5	24.5	27.6	17.7 23	23.3	BDL	63.8	53.7
East Corner, Railway Siding	59.9	65.2	8.99	63.9	35.9	38.2	40.5	38.2	9.1	9.5	7.7	8.8	27.0	24.1	20.8	24.0	BDL	61.7	53.2
(Comment of the comm		6			-									-					
Open Stolege Tald (West Collie)	0.00	9.7/	83.5	/4.8	37.0	47.9	41.1	47.4	9.6	9.1	10.4	9.7	13.5	22.0	26.1 20	50.6	BDL.	64.6	51.9
North Corner, Corridor for Transmission Line	71.5	76.2	81.2	76.2	46.3	42.6	48.2	45.7	9.2	7.6	10.3	7.6	23.9	22.0	28.1 24	24.7	BDL	62.8	53.2
South Corner, Railway Siding	66.5	71.7	70.3	69.5	39.3	37.7	41.2	39.4	11.4	10.5	12.2	11.4	29.2	32.9	21.0 27	27.7	BDL	61.6	55.8
East Corner, Railway Siding	71.4	7.77	79.6	76.2	42.7	45.5	48.2	45.5	10.9	11.3	9.5	10.4	32.2	28.8	24.7 28	28.6	BDL	62.2	52.6

Ground Water Sample

				LORGING
Parameters	Shah Colony	Date	Parameters	Shah Colony
	Results			Results
			Hd	7.31
			Dissolved Oxygen	4.1
			BOD (3 davs at 27°C)	<1.0
			COD	<1.0
			Total Suspended Solids	46.0
			Total Dissolved Solids	337.0
		17.04.21	Conductivity	494.0
			Turbidity, NTU	<1.0
			Total Alkalinity as CaCO3	176.0
			Total Hardness as CaCO3	172.0
			Sodium as Na	44.0
			Sulphate as SO4	24.7
			Nitrate as NO3	2.1
NOT BE DONE DUE	COULD NOT BE DONE DUE TO COVID SITUATION	Z		
	7 30		Iron	0.41
	0.00		Conner	100
ROD (3 days at 27°C)	0.0		Mangango	<0.03
			N. C.	10000
100	O.T.		Cadmirm	20000
Total Dissolved Solids	377.0		Selenting	50.00
	563.0		Arsenic	50 U
	<1.0		Cyanide	<0.01
Total Alkalinity as CaCO3	196.0		Lead	<0.01
Total Hardness as CaCO3	208.0		Zinc	0.47
	41.0		Total Chromium	<0.01
	24.8		Aluminium	<0.01
	2.0		Boron	<0.1
			Total Coliform	Absent
			E.coli	Absent
	7.33		Hd	7.38
	4.1		Dissolved Oxygen	4.6
BOD (3 days at 27°C)	<1.0		BOD (3 days at 27°C)	<1.0
	<1.0		COD	<1.0
Total Suspended Solids	44.0		Total Suspended Solids	43.0
Total Dissolved Solids	388.0		Total Dissolved Solids	361.0
	592.0	25.08.21	Conductivity	588.0
	<1.0		Turbidity, NTU	<1.0
Total Alkalinity as CaCO3	182.0		Total Alkalinity as CaCO3	176.0
Total Hardness as CaCO3	196.0		Total Hardness as CaCO3	192.0
	39.0		Sodium as Na	42.0
	21.6		Sulphate as SO4	20.9
			SOIN as atsatin	

	7.33	Iron	0.47
solved Oxygen	4.1	Copper	<0.01
D (3 days at 27°C)	<1.0	Manganese	<0.03
0	<1.0	Mercury	<0.0001
tal Suspended Solids	44.0	Cadmium	<0.001
tal Dissolved Solids	340.0	Selenium	<0.01
nductivity	580.0	Arsenic	<0.01
rbidity, NTU	<1.0	Cyanide	<0.01
tal Alkalinity as CaCO3	188.0	Lead	<0.01
tal Hardness as CaCO3	204.0	Zinc	0.42
dium as Na	38.0	Total Chromium	<0.01
phate as SO4	22.6	Aluminium	<0.01
rate as NO3	1.6	Boron	<0.1
		Total Coliform	Absent
		E.coli	Absent

Bawandhara Nallah

Results

				Hd	7.37	7.41	7.33
				Dissolved Oxygen	7.4	7.1	7.3
				BOD (3 days at 27°C)	1.5	1.8	1.3
				COD	8.0	12.0	8.0
				Total Suspended Solids	84.0	92.0	86.0
				Total Dissolved Solids	318.0	332.0	236.0
			17.04.21	Conductivity	464.0	508.0	412.0
				Turbidity, NTU	1.9	2.0	1.6
				Total Alkalinity as CaCO3	158.0	162.0	172.0
				Total Hardness as CaCO3	172.0	176.0	188.0
				Sodium as Na	38.0	40.0	40.0
				Sulphate as SO4	26.4	26.9	23.1
				Nitrate as NO3	0.8	9.0	9.0
		COULD NO	T BE DON	COULD NOT BE DONE DUE TO COVID SITUATION			
7.44	7.34	7.19		Iron	0.87	0.84	0.74
7.4	7.2	7.6		Copper	<0.01	<0.01	<0.01

H	7.44	7.34	7.19	Iron	0.87	0.84	0.74
issolved Oxygen	7.4	7.2	7.6	Copper	<0.01	<0.01	<0.01
OD (3 days at 27°C)	1.3	1.4	1.4	Manganese	<0.03	<0.03	<0.03
go	8.0	12.0	8.0	Mercury	<0.0001	<0.0001	<0.0001
otal Suspended Solids	164.0	174.0	160.0	Cadmium	<0.001	<0.001	<0.001
otal Dissolved Solids	344.0	352.0	284.0	Selenium	<0.01	<0.01	<0.01
onductivity	429.0	457.0	443.0	Arsenic	<0.01	<0.01	<0.01
urbidity, NTU	4.2	4.4	1.9	Cyanide	<0.01	<0.01	<0.01
otal Alkalinity as CaCO3	142.0	164.0	196.0	Lead	<0.01	<0.01	<0.01
otal Hardness as CaCO3	156.0	172.0	216.0	Zinc	0.71	0.72	0.57
odium as Na	38.0	41.0	33.0	Total Chromium	<0.01	<0.01	<0.01
ulphate as SO4	23.3	25.4	25.8	Aluminium	<0.01	<0.01	<0.01

Nitrate as NO3	9:0	9.0	0.5		Baron	0.15	0.16	0.24
					Total Coliform	Absent	Absent	Absent
					E.coli	Absent	Absent	Absent
77								
0	7.48	7.52	7.24		Hd	7.13	7.29	7.28
Dissolved Oxygen	7.0	7.0	7.3		Dissolved Oxygen	7.2	7.0	7.6
BOD (3 days at 27°C)	1.5	1.6	1.3		BOD (3 days at 27°C)	1.3	1.5	1.2
COD	8.0	12.0	12.0		COD	08	12.0	2.0
Total Suspended Solids	172.0	178.0	168.0		Total Suspended Solids	252.0	262.0	0.0
Total Dissolved Solids	364.0	372.0	292.0		Total Dissolved Solids	388.0	302.0	210.0
Conductivity	437.0	467.0	454.0	25.08.21	Conductivity	5150	530.0	310.0
Turbidity, NTU	3.9	4.0	1.6		Turbidity, NTU	0.010	323.0	0.104 2.0
Total Alkalinity as CaCO3	152.0	156.0	184.0		Total Alkalinity as CaCO3	1640	1730	0.0
Total Hardness as CaCO3	160.0	168.0	204.0		Total Hardness as CaCO3	1760	1070	192.0
Sodium as Na	35.0	40.0	31.0		Sodium as Na	0.071	104.0	212.0
Sulphate as SO4	20.1	24.7	20.6		Sulphate as SO4	38.0	42.0	36.0
Nitrate as NO3	80	0	000		Mitchell Co. NO.	74.8	25.1	21.4
	25	6.0	0.0		יוונו פוב פא וויסא	9.0	0.8	0.5
Hd	7.31	7.38	7.24		Iron	77.0	02.0	200
Dissolved Oxygen	7.2	6.9	7.3		Conner	2007	0.79	0.71
BOD (3 days at 27°C)	11	13	1,7		Manager	10.00	<0.01	<0.01
COD	7:1	C-1	7.7		Nailgallese	<0.03	<0.03	<0.03
Total Succession Collide	8.0	8.0	8.0		Mercury	<0.0001	<0.0001	<0.0001
oral Suspended Sollus	172.0	178.0	188.0		Cadmium	<0.001	<0.001	<0.001
otal Dissolved Solids	380.0	360.0	320.0		Selenium	<0.01	<0.01	<0.01
conductivity	460.0	480.0	480.0		Arsenic	<0.01	<0.01	×0.01
l urbidity, NTU	4.8	4.9	1.8		Cyanide	<0.01	10.05	<0.01
Fotal Alkalinity as CaCO3	168.0	168.0	184.0		Lead	<0.01	20.07	10.07
Fotal Hardness as CaCO3	160.0	176.0	212.0		Zinc	0.73	02.0	10.0
Sodium as Na	41.0	42.0	36.0		Total Chromiss	200	0.0	0.52
Sulphate as SO4	21.4	75.1	23.0		A included the second of the s	10.01	<0.01	<0.01
Vitrate as NO3	1.17	1.02	47.77	A. S A.S	Alcrimorn	<0.01	<0.01	<0.01
	8.0	0.8	0.8		Boron	0.12	0.19	0.19
					Total Coliform	Absent	Absent	Absent
		100 M			E.coli	Absent	Ahcont	Ahsant

Annexure - IV

Total Amount spent on Community Development Activities till September'21

SI.No	Activities/Events	Expenditure Rs. (Cr.)
1.0	EDUCATION, SKILL DEVELOPMENT & WOMEN EMPOWERMENT	0.97
2.0	HEALTH & SANITATION	0.54
3.0	SAFE DRINKING WATER	0.52
4.0	INFRASTRUCTURE	7.22
5.0	WELFARE & CULTURAL EVENTS	0.55
6.0	ENVIRONMENT & OTHERS	0.35
7.0	MID DAY MEAL & Covid 19	0.52
	Total	10.67