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एसजेवीएन थर्मल (प्रा.) लिमिटेड
SJVN Thermal (P) Ltd.
(एसजेवीएन की पूर्ण स्वामित्व वाली अधीनस्थ कंपनी)
(A wholly owned subsidiary of SJVN)
1320 मेगावाट बक्सर ताप विद्युत परियोजना
1320 MW Buxar Thermal Power Project

एसटीपीएल
STPL

No.: STPL/ BTPP/ Env./ Half Yearly/ 2025- 2218 Dated: 16/05/2025

To.

Deputy Director General of Forests (C),
Ministry of Environment, Forest & Climate Change,
Integrated Regional Office, 2nd Floor,
Headquarter- Jharkhand State Housing Board,
Harmu Chowk, Ranchi, Jharkhand – 834002

Email: ro[dot]ranchi-mef[at]gov[dot]in

Subject: Environment Clearance for 2x660 MW Coal Based Super Critical Buxar Thermal Power Project (BTPP) near village Chausa, District Buxar, Bihar by M/s. SJVN Thermal (P) Ltd. - **Six Monthly Compliance Report for compliance period from 01.10.2024 to 31.03.2025 - Regarding.**

Reference: Environment Clearance letter No. J-13012/69/2008/IA.I (T) dated 28.02.2017

Sir,

With reference to the above-mentioned Environment Clearance letter, SJVN Thermal (P) Ltd. is pleased to submit the Six-Monthly Compliance Report of the conditions stipulated in Environment Clearance for the period from 01.10.2024 to 31.03.2025 in respect of 2x660 MW Buxar Thermal Power Project. The Six-Monthly Compliance Report is enclosed as **Annexure-I**.

Thanking you

Yours faithfully,
For & on behalf of STPL

(Pradeep Singh)
General Manager (Environment)
SJVN Thermal Power (P) Ltd.
1320 MW Buxar Thermal Power Project,
Chausa, Buxar-802114 (Bihar)

Encl.: As above

पंजी. कार्यालय: 169, पाटलिपुत्र कॉलोनी, पटना–800013 (बिहार)
परियोजना कार्यालय: प्रथम तल, मुख्य कार्यालय भवन,
एसजेवीएन थर्मल (प्रा0) लिमिटेड, मोहनपुरवा, अखौरीपुर
गोला,, चौसा, बक्सर–802114 (बिहार)
दूरभाष: 06183–295168
ईमेल: env.stpl@sjvn.nic.in

www.sjvn.nic.in

Regd. Office: 169, Patliputra Colony, Patna-800013 (Bihar)
Project Office: 1st Floor, Main Office Building, SJVN Thermal (P) Ltd., Mohanpurwa, Akhouripur Gola, Chausa, Buxar-802114 (Bihar) Tel: 06183-295168
E-mail: env.stpl@sjvn.nic.in

Copy for information to:

1. Regional Director, Central Pollution Control Board (CPCB), Regional Directorate–Kolkata, 'South end Conclave' Block-502, 5th & 6th Floor, 1582, Razidanga, Main Road, Kolkata-700107.
   E-mail: mkbiswas.cpcb@nic.in

2. Bihar State Pollution Control Board (BSPCB), Parivesh Bhawan, Plot No. NS-B/2, Patliputra Industrial Area, Patliputra, Patna (Bihar) – 800010.
   E-mail: msbspcb-bih@gov.in, bspcb@yahoo.com

पंजी. कार्यालयः 169, पाटलिपुत्र कॉलोनी, पटना–800013 (बिहार)
परियोजना कार्यालयः प्रथम तल, मुख्य कार्यालय भवन,
एसजेवीएन थर्मल (प्रा0) लिमिटेड, मोहनपुरवा, अखौरीपुर
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Annexure-I

Six Monthly Monitoring Report on Compliance to Environmental Aspects
(For period ending March 2025)

1) Description of the Project: -	
(i) Name of Project	**M/s SJVN Thermal Pvt. Limited, 1320 MW Buxar Thermal Power Project** (A wholly owned subsidiary of SJVN Limited - a Navratna PSU under Govt. of India)
(ii) Type of the Project	Thermal Power Project (1320 MW)
(iii) Location	New Office Building, Mohanpurwa, Akhouripur Gola, Chausa, Buxar, Bihar-802114
(iv) Contact Address: -	
(a) Concerned Project Head	**Chief Executive Officer,** New Office Building, Mohanpurwa, Akhouripur Gola, Chausa, Buxar, Bihar-802114 e-mail - ceo.stpl@sjvn.nic.in
(b) Concerned Environment Division (Project)	**Head (Environment),** New Office Building, Mohanpurwa, Akhouripur Gola, Chausa, Buxar, Bihar-802114 e-mail - stplbuxarenvir@gmail.com
(c) Concerned Environment Division (Corporate)	**Head (Environment),** SJVN Corporate Headquarters, Shanan, Shimla-171006 (Himachal Pradesh) e-mail - sjvnced@sjvn.nic.in
2) Environment Clearance	J-13012/69/2008/IA.I (T) dated 28.02.2017

3. Compliance Report: -

Sr. No.	Condition in Environment Clearance	Compliance/ Status
A. Specific conditions		
i.	Land of 33% of the total project area would be earmarked for greenbelt development. 100 m wide greenbelt with 3 tiers around the plant boundary with plant density of 2,500 trees per hectare with local native species shall be developed.	The project is at advanced stage of construction and due to machinery/ equipment movement, sand and aggregate storage, laying of rail infrastructure works, space constraint for the fabrication works etc. the development of Green Belt and plantation work have been done in few patches only. As per the stipulated condition, the matter has been taken up with DFO, Bhojpur, Arrah, Forest Department, Govt. of Bihar for development of Greenbelt vide our letter no. STPL/BTPP/Envt./2024-1605 dated 23.02.2024, even no. 1644 dated 23.03.2024 and even no. 1652 dated 30.03.2024. In this regard, the Forest

Sr. No.	Condition in Environment Clearance	Compliance/ Status
		officials has visited the Project site and after the site visit they stated that in the Buxar region the planation work can't be carried out from March to June. Forest officials have conducted site inspection of project premises for plantation work on 18.06.2024 and Forest Range Officer, Buxar Forest Range has submitted the report on 19.06.2024 specifying the availability of land for plantation, number of plants to be planted and species of plants, etc. Thereafter, Regional Chief Conservator of Forests, Patna on dated 03.09.2024 has provided the detailed proposal and estimate along with Terms and Conditions for carrying out the plantation work at BTPP on 175.41 ha. area amounting to INR 12,36,55,036/- **(Appendix-1).**
ii.	Recommendations of Water Resource Department, Patna vide their letter dated 21.1.2017 shall be implemented for diverting the Buda nalla. Recommendations of IIT Roorkee shall also be implemented in this regard. Re-alignment has been proposed so as not to disturb the natural course of the drainage. Banks of the nalla to be strengthened near outfall locations. Solid waste disposal shall not be disposed in to nallah to maintain flow capacity of the nalla.	The work for diversion of Buddha Nalla is being implemented as per the approval of Flood Control Deptt., Government of Bihar and recommendation of water resource Dept, Patna and IIT, Roorkee. The work is in Progress. **(**Photographs are enclosed as **Appendix-2).** It will be ensured that no Solid waste will be disposed in to nalla and the water flowing through this buddha nalla will not be used by project.
iii.	Site Specific Seismicity Study recommendations by IIT Roorkee shall be implemented in design of all structures and equipment. The design of the structures shall also be in accordance with the provisions of IS.1893 (Part-I):2002 and IS'1893 (Part 4): 2005	All structures and equipment shall be designed for seismic forces adopting the Site-Specific Seismic information recommendations by IIT Roorkee and using the other provisions in accordance with IS:1893 (Part-1): 2002 & IS:1893 (Part-4): 2005. The maximum horizontal Peak Ground Acceleration (PGA) value estimated from various Seismogenic sources for Buxar Thermal Power Project site, Bihar is 0.13g. However, the recommended horizontal PGA for the project site is 0.16g. This data has been used in plant structure.
iv	Flue Gas Desulphurization (FGD) and Selective Catalytic Reduction (SCR) shall be installed in the proposed Thermal Power Plant.	Both systems have been envisaged. 96% and 84% progress achieved for FGD and SCR respectively for Unit #1.

Sr. No.	Condition in Environment Clearance	Compliance/ Status
		Supply of material for Unit #2 is under progress.
v	Sulphur and ash content in the imported coal shall not exceed 0.8% and 12% respectively. The Sulphur and ash content of domestic coal shall not exceed 0.6%/ and 34% respectively. In case of variation of quality at any point of time, fresh reference shall be made to the Ministry for suitable amendments to the environmental clearance.	Agreed. Agreement for Long Term Coal Linkage has been signed from Central Coalfield Limited 27.07.2021 for supply of coal.
vi	The PP shall explore feasibility of Air-Cooled Condensers based on the guidelines of CEA. As proposed, Capital cost of **Rs. 1,311.32 Crores** shall be earmarked for implementation of Environment Management Plan. **CSR budget of Rs.61 Crores has been allocated which shall be spent in 10 years.** The CSR budget during operational phase shall be earmarked as per the CSR policy of GoI. Provision for water supply to be made for construction toilets under Swachh Bharat Abhiyan.	Water cooled condenser as per original scheme are being erected. As per Public Investment Board (PIB) approval of BTTP, an amount of Rs. 1858.39 Crore (At January 2018 Price Level) have been earmarked for Environmental Protection Measures, which is more than the approved cost kept in Environment Clearance i.e. Rs. 1,311.32 crore. **(Appendix-3).** The schemes are being implemented at BTPP, STPL under SJVN Foundation CSR funds since 2014. As on date Rs. 26.16 crore expenditure has been done under Skill Development programme, nomination of youth for ITIs course, Horticulture/ Agriculture & Veterinary training etc. **(Appendix-4)**.
vii	MoEF&CC Notification S.O. 3305(E) dated 07.12.2015 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, 100 mg/Nm3, 100 mg/Nm3 and 0.03 mg/Nm3 respectively. The specific water consumption shall not exceed 2.5 m3/MWh and zero wastewater discharge shall be achieved.	Agreed. The MoEF&CC Notification S.O. 3305(E) dated 7.12.2015 shall be implemented during operation of Buxar Thermal Power Project.
viii	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	Agreed. 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 during operation of Buxar Thermal Power Project.
ix	MoEF&CC Notifications on fly ash 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.	Agreed.

Sr. No.	Condition in Environment Clearance	Compliance/ Status
	254(E) dated 25.01.2016 and subsequent amendments shall be complied with.	MoEF&CC Notifications on fly ash 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 during operation phase of Buxar Thermal Power Project. EoI has been obtained from various users for utilization of fly ash viz., Rural Work Deptt., Govt. of Bihar – 0.48 MMTPA, Road Construction Deptt., Govt. Of Bihar – 0.24 MMTPA, M/s R.K. Mishra Enterprises, Bhagalpur Bihar- 0.5 MMTPA, Lafarge Cement Plant – 0.8 MMTPA, Dalmiya Cement – 0.7 MMTPA and Global Infra Ltd. – 0.5 MMTPA. **(Appendix-5)**
x	Separate Environmental Clearance may be obtained for the proposed Township in an area of 95 acres with total built-up area of 1,21,178 sq. m as applicable. under EIA Notification 2006. Sewage Treatment Plant (STP) shall be set up in the township for treating wastewater of 900 m3/ day.	Vide EC identification no: - EC22B038BR124616 approval has been accorded. **(Appendix-6)** The Project township is under construction and Sewage Treatment Plant (STP) has been included in the plan of township complex, which will be commissioned before commencement of accommodation in the Project township.
xi	An estimate of 5.9 million cubic meters (9 million tons) of Soil would be required for leveling the site. Earth material will be sourced from land/ borrow pits from the nearby areas within 15 km radius from the site. Necessary permits and approvals shall be obtained from the concerned authorities for excavation of earth material.	Only 1,03,002 m^3 soil has been brought out from outside the plant boundary for which necessary approval/permission has been obtained from State Mining Department **(Appendix-7).** Balance soil requirement has been met from excavation of components within plant.
xii	As proposed, separate Environmental Cell with Environmental Engineers, Environmental Scientists, Occupational Health Specialist, Horticulture Specialist, and Social Scientist headed by Environment Head shall function and implement environmental management plan and monitoring activities. Company shall implement Environmental Management Systems, ISO 14001:2015 at the	A separate Environmental Cell has been constituted. Environment Management System - ISO 14001.2015 certificate has been obtained from Bureau of Indian Standard for all activities of Buxar Thermal Power Plant **(Appendix-8)**.

Sr. No.	Condition in Environment Clearance	Compliance/ Status
	proposed project. Sustainability Reporting shall be done as per environment management plan.	
xiii	The compliance of EC conditions shall be reviewed on quarterly basis. In this regard, a compliance mechanism shall be set up through Plant Head who is responsible for implementing the conditions stipulated in the Environmental Clearance, non-compliances and violations. Budget to implement various environmental pollution control measures as proposed in the EMF shall be kept in a separate account and shall not be diverted for any other purposes.	Is being complied.
xiv	Vision document specifying prospective plan for the site shall be formulated and submitted to the Regional Office of the Ministry within six months.	STPL vide letter dated 29.04.2019 has submitted a project vision document to the Regional Office, MOEF&CC at Ranchi. **(Appendix-9)**
xv	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.	The installation of 1 MW Solar Rooftop system is envisaged over the available rooftops. The stated condition shall be complied once the plant is commissioned and rooftops of various buildings is available for erection of Solar Panels. The project township is under construction.
xvi	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.	Agreed. The compliance of stated condition shall be done with the start of coal supply to the Plant.
xvii	Online continuous monitoring system for stack emission, ambient air and effluent shall be installed.	Online continuous monitoring system for stack emission, ambient air and effluent will be installed before commissioning of Project. However, monthly Ambient air quality monitoring is being done as per location identified by BSPCB **(Annexure- 10).**
xviii	High Efficiency Electrostatic Precipitators (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 lesser. 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	Erection of high Efficiency Electrostatic Precipitators (ESP) for Unit #1 is in full swing; Approx. 99% progress achieved in Unit #1. 78% progress of Unit #2 ESP achieved till date. Moreover, bag filter and water spray system are also planned to be installed in high dusty areas like coal and ash handling points. Frequency of

Sr. No.	Condition in Environment Clearance	Compliance/ Status
	with an environment friendly sludge disposal system.	watering on road for dust suppression shall be ensured as per requirement.
xix	Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	Dust extraction system along with dust suppression (water spray) has been envisaged in high dusty areas like coal and ash handling points as per Environment Clearance.
xx	CoC of at least 5.0 shall be adopted	Shall be complied once the Unit #1 is under operation.
xxi	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**.	Monthly Monitoring of water quality parameters in ground water are being done in accordance with the IS10500:2012 and surface water quality monitoring are being done in accordance with the 2296:1992. The monitoring results has been submitted to MoEF&CC along with half yearly report and on monthly basis to Bihar Pollution Control Board. The latest ground water quality monitoring results of labour colony, Staff colony are attached as **Appendix-11**.
xxii	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	A 50,000 cubic meter capacity of Rain water harvesting pond is envisaged in the Project for collection of rainwater. **Appendix-12.** The rainfall runoff shall be collected through drains in a Rain water Harvesting Pond (RWHP) and water from the RWHP shall be 100% used in dry season.
xxiii	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 except Buda nalla as proposed for re-alignment without affecting natural drainage	Shall be ensured. The work for diversion of Buddha Nallah is being implemented as per the approval of Flood Control Deptt., Government of Bihar (**Appendix-13)** and recommendation of water resource Dept, Patna and IIT, Roorkee. The work is in Progress and likely to be completed shortly. **(**Photographs are enclosed as **Appendix-2).**
xxiv	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	Is being ensured. Considering the balancing of excavation and filling requirement up to the extent possible.

Sr. No.	Condition in Environment Clearance	Compliance/ Status
xxv	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	Bottom Ash in the form of slurry shall be collected and stored in ash lagoons/ dyke. Monitoring of Heavy Metals in bottom ash shall be started once the Project is commissioned. For dry fly ash 04 nos. silos with effective capacity of 7200 m^3 (4x1800 m^3) will be constructed for storage.
xxvi	No mine void filling will be undertaken 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 duly complied if required in future.
xxvii	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.	Agreed. The stated condition shall be complied during operation of Project.
xxviii	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%.	The project is at advanced stage of construction and due to machinery/ equipment movement, sand and aggregate storage, laying of rail infrastructure works, space constraint for the fabrication works etc. the development of Green Belt and plantation work have been done in few patches only. As per the stipulated condition, the matter has been taken up with DFO, Bhojpur, Arrah, Forest Department, Govt. of Bihar for development of Greenbelt vide our letter no. STPL/BTPP/Envt./2024-1605 dated 23.02.2024, even no. 1644 dated 23.03.2024 and even no. 1652 dated 30.03.2024 **(Appendix-1)**. In this regard, the Forest officials has visited the Project site and after the site visit they stated that in the Buxar region the planation work does not carried out from March to June.

Sr. No.	Condition in Environment Clearance	Compliance/ Status
		Forest officials have conducted site inspection of project premises for plantation work on 18.06.2024 and Forest Range Officer, Buxar Forest Range has submitted the report on 19.06.2024 specifying the availability of land for plantation, number of plants to be planted and species of plants, etc. Thereafter, Regional Chief Conservator of Forests, Patna on dated 03.09.2024 has provided the detailed proposal and estimate along with Terms and Conditions for carrying out the plantation work at BTPP on 175.41 ha. area amounting to INR 12,36,55,036/- **(Appendix-1).**
xxix	Green belt shall also be developed around the Ash Pond over and above the Green Belt around the plant boundary	As per above. Planation shall be done around ash dyke/ pond area to control the dust particles. The ash dyke in under construction.
xxx	The project proponent shall formulate a 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 with the conditions stipulated in this clearance letter and other applicable environmental laws and regulations	Shall be duly complied SJVN has a well-established Corporate Environment Policy, which can be seen at https://sjvn.nic.in/environmentpolicy/49 **(Appendix-14).**
xxxi	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 programmes.	Schemes are being implemented since 2014 at Buxar Thermal Power Plant as per CSR Policy on behalf of SJVN Foundation. The schemes are being implemented at BTPP, STPL under SJVN Foundation CSR funds since 2014. As on date Rs. 26.16 crore expenditure has been done under Skill Development programme, nomination of youth for ITIs course, Horticulture/ Agriculture & Veterinary training etc
xxxii	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 works for STPL are being implemented through the SJVN-CSR foundation. All the CSR activities are being monitored by CSR Department, SJVN Corporate Head Quarter, Shimla. In this regard, a Screening Committee has been constituted at Buxar Thermal Power Plant; 1. Sh. Rahul Singh, Manager (HR) – CSR.

Sr. No.	Condition in Environment Clearance	Compliance/ Status
		2. Sh. Gautam Kumar, Dy. Manager (Civil)
Part B: General conditions		
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.	Agreed. Shall be complied with commissioning of Project.
ii.	A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation	Agreed. A 60 KLD Sewage Treatment Plant (STP) and 50 m^3 per hour Effluent Treatment Plant (ETP) are under construction. The treated water will be reused as per stated condition.
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.	To ensure the Fire safety measures, fire safety plan shall be implemented in the project including coal yard, during operation of project. The Project has Water tender, Foam fire tender and DCP fire tender to handle the fire emergency.
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	Approval from Jt. Chief Controller of Explosive, Kolkata under Petroleum & Explosives Safety Organization (PESO) has been obtained vide reference no.: A/P/EC/BI/15/1988 (P522050) dated 27.04.2022 **(Appendix-15)**. To deal with the disaster & emergency related matter an Emergency Preparedness Plan has been got prepared from National Safety Council, Mumbai (**Appendix-16)**.
v	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	First Aid boxes have been kept at different locations at Buxar Thermal Power Project (Offices, Construction site, Guest House, substation, Bachelor accommodation, Security Main gate etc.). The sanitation arrangements are available for all persons including drivers and other contract workers.
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 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	The project is under construction. The stated condition shall be duly complied during commissioning and operation period. 371 no. ear plugs have been provided to workers involved in assembling work of Turbine and Generator. The latest Noise quality Report (March 2025) is enclosed **(Appendix-17).**

Sr. No.	Condition in Environment Clearance	Compliance/ Status
	hearing loss including shifting to non-noisy/less noisy areas.	
vii	Regular monitoring of ambient air ground level concentration of S02, 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	Shall be duly complied. Monthly monitoring of ambient air quality is being carried out at 04 location decided by Bihar State Pollution Control Board (**Appendix-10)** for parameters mentioned in CPCB notification dated 18.11.2009. The latest monitoring result of ambient air quality monitoring done during March 2025 at different locations of Project is attached at **Appendix-18.**
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.	Necessary provision kept for compliance (during operations) to meet the stated conditions.
ix	Provision shall be made for the housing of construction labour (as applicable) within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	The construction work of the project is being carried out through contractor (M/s L&T). The construction workers engaged in contraction work has facilitated with necessary amenities by the contractor like labour colony, toilets, electricity, transpiration, safe drinking water and sanitation, first aid & ambulance. However, workers from nearby villages are also employed in the construction activity, they reside in their own home.
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.	Advertisement published in Dainik Jagran and Hindustan times on 05/03/2017 and 09/03/2017 respectively. **(Appendix-19)**
xi	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad / Municipal Corporation, urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	Environment Clearance letter available on company website www.sjvn.nic.in and shared with concerned Panchayat offices, Urban Local Body, District Magistrate, municipal corporation. The event of grant of environment clearance was also publicized through advertisement in the newspapers Dainik Jagran and

Sr. No.	Condition in Environment Clearance	Compliance/ Status
		Hindustan on 05/03/2017 and 09/03/2017 respectively. The advertisements are placed at **(Appendix-19)**. Copy of receipt of Environment Clearance from Panchayat is enclosed at **Appendix-20.**
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 (PM2.5 & PM10), SO2, 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	Six-monthly compliance reports are being regularly submitted to MoEF&CC & MoEF&CC Regional Office, Ranchi and Bihar State Pollution Control Board, Patna and also uploaded on our website www.sjvn.nic.in. The last compliance report for the period ending September 2024 was submitted on 28.11.2024. The continuous online monitoring system shall be installed during commissioning of Project.
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 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.	The environment statement report for F.Y. 2023-2024 has been submitted on 30.09.2024.
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.	Six-monthly compliance reports are being regularly submitted to MoEF&CC & MoEF&CC Regional Office, Ranchi and Bihar State Pollution Control Board, Patna and also uploaded on our website www.sjvn.nic.in. The last compliance report for the period ending September 2024 was submitted on 28.11.2024.
xv	The progress of the project shall be submitted to CEA on six monthly basis.	Shall be duly 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	Complete set of requisite documents shared with MoEF&CC regional office on 20/04/2017 and project updates being shared regularly vide half yearly compliance reports **(Appendix-21)**.

Sr. No.	Condition in Environment Clearance	Compliance/ Status
	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.	
xvii	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These costs 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.	As per Public Investment Board (PIB) approval of BTTP, an amount of Rs. 1858.39 Crore (At January 2018 Price Level) have been earmarked for Environmental Protection Measures, which is more than the approved cost kept in Environment Clearance i.e. Rs. 1,311.32 Crores. **(Appendix-3)**
xviii	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 Cabinet Committee on Economic Affairs, chaired by the Prime Minister had given its approval on 07/03/2019 for investment approval for 2x660 MW Buxar Thermal Power Project (Buxar TPP) in District Buxar of Bihar. The project will be completed at an estimated cost of Rs. 10,439.09 crore and implemented by SJVN Thermal Private Ltd., a wholly owned subsidiary of SJVN Ltd., a Mini Ratna CPSU under Ministry of Power, Government of India. The said approval was communicated by Ministry of Power, GoI vide letter No. FU-18/2027-IPC dated 08/03/2019. The Buxar TPP will start yielding benefits from 2025-2026.
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	Agreed.
10.	The environment 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.	The Environment Clearance was accorded on 28.02.2017 and valid till 27.02.2027, considering the Office Memorandum dated 13.12.2022 in line with S.O. No.: 1807(E) dated 12.04.2022.

Appendix-1

बिहार सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन विभाग, बिहार
कार्यालय–क्षेत्रीय मुख्य वन संरक्षक, पटना।

राईडिंग रोड (पीर अली मार्ग), अरण्य भवन, द्वितीय तल, पटना–800014
दूरभाष संख्या–0612–2226144; ई–मेल: patnaccf@gmail.com

पत्रांक:– 2 बजट 78 / 2024

प्रेषक,

डॉ० गोपाल सिंह, भा.व.से.
क्षेत्रीय मुख्य वन संरक्षक, पटना।

सेवा में,

प्रधान मुख्य वन संरक्षक(विकास),
बिहार, पटना। पटना, दिनांक वीं अगस्त, 2024 ई०।

विषय :– **बक्सर थर्मल पावर प्रोजेक्ट के परिसीमा में ग्रीन बेल्ट विकसित करने हेतु कराये जाने वाले वृक्षारोपण का प्राक्कलन समर्पित करने के संबंध में।**

प्रसंग :– प्रमुख (पर्यावरण), एस.टी.पी.एल., बी.टी.पी.पी., चौसा, बक्सर का कार्यालय पत्रांक 1605 दिनांक 16.02.2024 तथा वन संरक्षक, पटना अंचल, पटना का पत्रांक 1388 दिनांक 29.08.2024

महाशय,

उपर्युक्त विषयक प्रासंगिक पत्र के आलोक में वन प्रमंडल पदाधिकारी, भोजपुर वन प्रमंडल, आरा के अंतर्गत बक्सर थर्मल पावर प्रोजेक्ट के परिसीमा में ग्रीन बेल्ट विकसित करने हेतु 18.24 कि.मी. में कुल 35600 पौधों का वृक्षारोपण से संबंधित प्राक्कलन औचित्य सहित समर्पित किया गया है, जिसकी कुल प्राक्कलित राशि **1,09,28,186 /–** (एक करोड़ नौ लाख अठाईस हजार एक सौ छियासी रूपया) मात्र की है, जिसके तहत वित्तीय 2024–25 में अग्रिम कार्य / समापन कार्य एवं आगामी तीन वर्षो में सम्पोषण कार्य प्रसतावित है, जिसका वर्षवार व्यय से संबंधित संक्षिप्त विवरणी निम्नवत् है :–

क्र. सं.	प्रक्षेत्र का नाम	कार्य स्थल का नाम	कुल पौधें	अग्रिम कार्य 2024–25	समापन कार्य 2024–25	प्रथम सम्पोषण 2025–26	द्वितीय सम्पोषण 2026–27	तृतीय सम्पोषण 2027–28	कुल प्रक्कलित राशि
1.	बक्सर	बक्सर थर्मल पावर प्रोजेक्ट परियोजना की परिसीमा में	35600	2244936	5907863	1177755	1231289	366343	10928186
		कुल :–	**35600**	**2244936**	**5907863**	**1177755**	**1231289**	**366343**	**10928186**

समर्पित प्राक्कलन द्वारा प्रतिवेदित किया गया है कि योजना भवदीय कार्यालय आदेश संख्या 4 तथा ज्ञापांक 405 दिनांक 28.04.2024 द्वारा निर्धारित S.O.R. तथा वर्त्तमान में लागू 410 /– प्रति मजदूर के न्यनूतम मजदूरी दर के आधार पर तैयार कर सक्षम स्तर से तकनीकी स्वीकृति के उपरांत वन संरक्षक, पटना अंचल, पटना द्वारा अनुशंसित एवं अग्रसारित है। इस प्रकार तैयार योजनाओं के सारांश पर अद्योहस्ताक्षरी के स्तर से तकनीकी अनुमोदन कर दिया गया है। उक्त प्राक्कलित राशि संबंधित एजेंसी SJVN Thermal (P.) Ltd (STPL) द्वारा उपलब्ध करायी जाएगी।

अतः वन संरक्षक, पटना अंचल, पटना का 1387 दिनांक 29.08.2024 द्वारा समर्पित योजनाओं को दो प्रतियों में भवदीय सेवार्थ भेजते हुए अनुरोध है कि योजना को आवश्यक कार्रवाई करते हुये प्रमुख (पर्यावरण), STPL, बक्सर थर्मल पावर प्रोजेक्ट, चौसा (बक्सर) को राशि आवंटन हेतु भेजने की कृपा की जाय।

अनु०:–यथोक्त।

विश्वासभाजन,
ह० /–
(डॉ० गोपाल सिंह)

ज्ञापांक– 2 बजट 78 / 2024 –935 पटना, दिनांक 03 वीं सितंबर, 2024 ई०।

प्रतिलिपि::–योजना की प्रति के साथ प्रमुख (पर्यावरण), एस०टी०पी०एल०, बी०टी०पी०एल०, चौसा, बक्सर को उनके पत्रांक 1605 दिनांक 16.02.2024 सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित।

अनु०:–यथोक्त।

3/9/24
(डॉ० गोपाल सिंह)

7.9.24

बिहार सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन विभाग

कार्यालय, वन संरक्षक, पटना अंचल, पटना।

अरण्य भवन, द्वितीय तल, शहीद पीर अली खाँ मार्ग (राईडिंग रोड) पटना– 800014
e-mail- cfpatnacircle@gmail.com

पत्रांक– 1288 /

30/8

प्रेषक,

डॉ० गोपाल सिंह, भा०व०से०
वन संरक्षक,
पटना अंचल, पटना।

सेवा में,

क्षेत्रीय मुख्य वन संरक्षक,
पटना।

दिनांक– 29 / 8 / 2024

विषय :– **बक्सर थर्मल पावर प्रोजेक्ट के परिसीमा में ग्रीन बेल्ट विकसित करने हेतु कराये जाने वाले वृक्षारोपण का प्राक्कलन समर्पित करने के संबंध में।**

प्रसंग :– प्रमुख (पर्यावरण), एस.टी.पी.एल., बी.टी.पी.पी., चौसा, बक्सर का कार्यालय पत्रांक–1605 दिनांक–16.02.2024

महाशय,

उपर्युक्त विषयक प्रासंगिक पत्र (छाया प्रति संलग्न) द्वारा किये गये अनुरोध के आलोक में वन प्रमंडल पदाधिकारी, भोजपुर वन प्रमंडल, आरा के पत्रांक–1510 दिनांक–22.08.2024 द्वारा बक्सर थर्मल पावर प्रोजेक्ट के परिसीमा में ग्रीन बेल्ट विकसित करने हेतु 18.24 कि.मी. में कुल 35600 पौधों का वृक्षारोपण से संबंधित प्राक्कलन (औचित्य सहित) समर्पित किया गया है, जिसकी कुल प्राक्कलित राशि **1,09,28,186/–** (एक करोड़ नौ लाख अठाईस हजार एक सौ छियासी रूपया) मात्र की है, जिसके तहत वित्तीय 2024–25 में अग्रिम कार्य/समापन कार्य एवं आगामी तीन वर्षो में सम्पोषण कायं प्रसतावित है, जिसका वर्षवार व्यय से संबंधित संक्षिप्त विवरणी निम्नवत् है :–

क्र. सं.	प्रक्षेत्र का नाम	कार्य स्थल का नाम	कुल पौधें	अग्रिम कार्य 2024–25	समापन कार्य 2024–25	प्रथम सम्पोषण 2025–26	द्वितीय सम्पोषण 2026–27	तृतीय सम्पोषण 2027–28	कुल प्राक्कलित राशि
1.	बक्सर	बक्सर थर्मल पावर प्रोजेक्ट परियोजना की परिसीमा में	35600	2244936	5907863	1177755	1231289	366343	10928186
		कुल :–	35600	2244936	5907863	1177755	1231289	366343	10928186

उक्त प्राक्कलन प्रधान मुख्य वन संरक्षक, (विकास) बिहार, पटना के कार्यालय आदेश संख्या–04 तथा ज्ञापांक–405 दिनांक–28.04.2023 द्वारा निर्धारित S.O.R. तथा वर्त्तमान में लागू 410/– रूपया मानव दिवस पर आधारित है। उक्त प्राक्कलित राशि संबंधित एजेंसी एस.टी.पी.एल. द्वारा उपलब्ध करायी जाएगी।

अतः वन प्रमंडल पदाधिकारी, भोजपुर वन प्रमंडल, आरा के पत्रांक–1510 दिनांक–22.08.2024 द्वारा समर्पित प्राक्क्लन को अपेक्षित कार्रवाई के उपरान्त भवदीय सेवार्थ भेजते हुए अनुरोध है कि इसे प्रधान मुख्य वन संरक्षक, (विकास), बिहार, पटना को अग्रेत्तर कार्रवाई हेतु अग्रसारित करने की कृपा की जाय।

विश्वासभाजन,

अनु०–यथोक्त।

(डॉ० गोपाल सिंह)

कार्यालय
क्षेत्रीय मुख्य वन संरक्षक, पटना
प्राप्ति संख्या:- 1880
दिनांक:- 30/08/2024

बिहार सरकार

पर्यावरण, वन एवं जलवायु परिवर्तन विभाग

कार्यालय– वन प्रमण्डल पदाधिकारी, भोजपुर वन प्रमण्डल, आरा।

कानन कोठी, धनुपरा, आरा, पिन–802301, E-mail -dfobhojpurfdivision@gmail.com

पत्रांक– 1510 /

प्रेषक,

विकास अहलावत, भा०व०से०
वन प्रमण्डल पदाधिकारी,
भोजपुर वन प्रमण्डल, आरा।

23/8/24

सेवा में,

वन संरक्षक,
पटना अंचल, पटना।

दिनांक 22 / 08 / 2024

विषय :– बक्सर थर्मल पावर प्रोजेक्ट के परिसीमा में ग्रीन बेल्ट विकसित करने हेतु कराये जाने वाले वृक्षारोप का संशोधित प्राक्कलन समर्पित करने के संबंध में।

प्रसंग :– भवदीय कार्यालय पत्रांक 1353 दिनांक 12.08.2024

महाशय,

उपर्युक्त विषय के संबंध में सूचित करना है कि बक्सर थर्मल पावर प्रोजेक्ट के परिसीमा में ग्री बेल्ट विकसित करने हेतु इस प्रमण्डल द्वारा प्रस्ताव समर्पित किया गया था, जिसमें 175.41 हे0 में कुल 42852 पौधो का अग्रिम एवं समापन कार्य प्रस्तावित है। जिसमें सभी प्रस्तावों को प्रधान मुख्य वन संरक्षक (विकास बिहार, पटना के पत्रांक 376 दिनांक 10.04.2023 द्वारा दिशा–निर्देश के क्रम में संशोधित कर समर्पित करने हे निर्देशित किया गया है। जिसके आलोक में प्राक्कलन पुनः संशोधित कर (विभागीय SOR तथा वर्तमान मजदु दर पर) इस पत्र के साथ संलग्न कर समर्पित की जा रही है।

भवदीय सेवा में सूचनार्थ एवं आवश्यक कार्रवाई हेतु समर्पित।

अनु० यथोक्त।

विश्वासभाजन

कार्यालय वन संरक्षक
2766
24.08.24
पटना, पटना

वन प्रमण्डल पदाधिकारी,
भोजपुर वन प्रमण्डल, आरा।

Budget
23/8/24

E:\2024\Estimate\S J V N Power Plant\20-08-2024\09-08-2024.docx

बक्सर थर्मल पावर प्रोजेक्ट के परिसीमा में ग्रीन बेल्ट विकसित करने हेतु कराये जाने वाले ब्लॉक वृक्षारोपण की योजना का औचित्य।

वित्तीय वर्ष 2024–25 एवं 2025–26 में बक्सर थर्मल पावर प्रोजेक्ट के परिसिमा में ग्रीन बेल्ट विकसित करने हेतु वरि0 प्रबंधक (पर्यावरण) एस0टी0पी0एल0, वी0टी0पी0पी0 चौसा, बक्सर से पत्र प्राप्त हुआ। जिसमें कुल 4,28,525 पौधारोपण कार्य हेतु अनुरोध किया गया, जिसके आलोक में उक्त स्थल का निरीक्षण वनों के क्षेत्र पदाधिकारी, बक्सर द्वारा करते हुये ब्लॉक पौधारोपण का प्रस्ताव समर्पित किया गया है। समर्पित की जाने वाली योजना दो चरणों में की जानी है, जिसका विवरण निम्न प्रकार है:–

वित्तीय वर्ष 2024–25 में 35600 ब्लॉक पौधारोपण के अग्रिम कार्य का प्रस्ताव समर्पित किया गया है, जो कुल पाँच वर्षो का योजना है। जिसमें प्रथम वन अग्रिम कार्य तथा शेष चार वर्ष सम्पोषण कार्य का प्रावधान है। बक्सर थर्मल पावर प्रोजेक्ट में ग्रीनबेल्ट विकसित करने से हरित आवरण बढ़ेगा एवं संबंधित स्थल पर प्रदूषण मुक्त वातावरण बनेगा। वृक्षारोपण से वायु प्रदुषण को नियंत्रित करने के लिये हानिकारक गैसों को न केवल अवशोषित करते हुये बल्कि जल प्रदुषण को भी नियंत्रित करने में महत्वपूर्ण भूमिका निभाते है।

वित्तीय वर्ष 2024–25 में 392925 ब्लॉक पौधारोपण के अग्रिम कार्य का प्रस्ताव समर्पित किया गया है, जो कुल पाँच वर्षो का योजना है। जिसमें प्रथम वर्ष अग्रिम कार्य, द्वितीय वर्ष समापन कार्य तथा शेष वर्षो में सम्पोषण कार्य का प्रावधान है। बक्सर थर्मल पावर प्रोजेक्ट में ग्रीनबेल्ट विकसित करने से हरित आवरण बढ़ेगा एवं संबंधित स्थल पर प्रदूषण मुक्त वातावरण बनेगा। वृक्षारोपण से वायु प्रदुषण को नियंत्रित करने के लिये हानिकारक गैसों को न केवल अवशोषित करते हुये बल्कि जल प्रदुषण को भी नियंत्रित करने में महत्वपूर्ण भूमिका निभाते है।

वन प्रमण्डल पदाधिकारी,
भोजपुर वन प्रमण्डल, आरा।

कार्यालय–वन प्रमण्डल पदाधिकारी, भोजपुर वन प्रमण्डल, आरा।

बक्सर थर्मल पावर प्रोजेक्ट

बक्सर थर्मल पावर प्रोजेक्ट ग्रीन बेल्ट विकसित करने हेतु वर्ष 2024–25 में (अग्रिम कार्य) पौधारोपण कार्य का सारांश

क्रमांक	योजना	कार्य विवरणी	प्रक्षेत्र	कि०मी / हे०	कुल पौधो की संख्या	2024–25		2025–26	2026–27	2027–28	प्राक्कलित राशि
						अग्रिम कार्य	समापन कार्य	प्रथम वर्ष सम्पोषण कार्य	द्वितीय वर्ष सम्पोषण कार्य	तृतीय वर्ष सम्पोषण कार्य	
1	अग्रिम एवं समापन कार्य, तथा तीन वर्षो का सम्पोषण कार्य सहित वृक्षारोपण कार्य।	बक्सर थर्मल पावर प्रोजेक्ट परियोजना की परिसीमा में।	बक्सर	6.24	15600	831450	2592678	491367	513702	183172	4612368
2				12.00	20000	1413486	3315185	686388	717587	183172	6315818
			Sub Total :-	18.24	35600	2244936	5907863	1177755	1231289	366343	10928186

नोटः–
1. वृक्षारोपण के अग्रिम कार्य में झाड़ी सफाई, गढ़ा बनाने का कार्य तथा ट्रेन्च निर्माण इत्यादि कार्य प्रस्तावित है।
2. वृक्षारोपण के समापन कार्य में पौधारोपण कार्य, कोड़नी–निकौनी, पटवन तथा सुरक्षा इत्यादि कार्य प्रस्तावित है।
3. वृक्षारोपण के सम्पोषण कार्य में पौधो का कोड़नी–निकौनी, मृत पौधों का बदलाव, पटवन तथा सुरक्षा इत्यादि कार्य तीन वर्षो के लिये प्रस्तावित है।

वन संरक्षक, पटना अंचल, पटना के पत्रांक 1388 दिनांक 29.08.2024 तथा वन प्रमंडल पदाधिकारी, भोजपुर वन प्रमंडल, आरा के पत्रांक 1510 दिनांक 22.08.20244 के द्वारा सक्षम स्तर से प्रदत्त तकनीकी स्वीकृति के सारांश पर वन संरक्षक, पटना अंचल, पटना की अनुशंसा के आधार रू० 1,09,28,186/– (एक करोड़ नौ लाख अठाईस हजार एक सौ छेयासी रूपये)के लिए तकनीकी अनुमोदन दी जाती है।

वन प्रमण्डल पदाधिकारी,
भोजपुर वन प्रमण्डल, आरा।

Technical approval on summary of schemes of Rs 10928186/- (Rs one crore nine lakh twenty eight thousand one hundred eighty six) only is accorded.
29/8/24

Conservator of Forests
Patna Circle, Patna

क्षेत्रीय मुख्य वन संरक्षक,
पटना।

E:\2024\Estimate\S J V N Power Plant\20-08-2024\SJVN Thermal power Plantation (Block Plantation)

बिहार सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन विभाग, बिहार
कार्यालय–क्षेत्रीय मुख्य वन संरक्षक, पटना।
राईडिंग रोड (पीर अली मार्ग), अरण्य भवन, द्वितीय तल, पटना–800014
दूरभाष संख्या–0612–2226144, ई–मेल: patnarccf@gmail.com

पत्रांक:– 2 बजट 78 / 2024

प्रेषक,

डॉ० गोपाल सिंह, भा.व.से.
क्षेत्रीय मुख्य वन संरक्षक, पटना।

सेवा में,

प्रधान मुख्य वन संरक्षक(विकास),
बिहार, पटना। पटना, दिनांक वीं सितंबर, 2024 ई०।

विषय :– **बक्सर थर्मल पावर प्रोजेक्ट के परिसीमा में ग्रीन बेल्ट विकसित करने हेतु कराये जाने वाले वृक्षारोपण का प्राक्कलन समर्पित करने के संबंध में।**

प्रसंग :– प्रमुख (पर्यावरण), एस.टी.पी.एल., बी.टी.पी.पी., चौसा, बक्सर का कार्यालय पत्रांक 1605 दिनांक 16.02.2024 तथा वन संरक्षक, पटना अंचल, पटना का पत्रांक 1387 दिनांक 29. 08.2024

महाशय,

उपर्युक्त विषयक प्रासंगिक पत्र के आलोक में वन प्रमंडल पदाधिकारी, भोजपुर वन प्रमंडल, आरा के अंतर्गत बक्सर थर्मल पावर प्रोजेक्ट के परिसीमा में ग्रीन बेल्ट विकसित करने हेतु 157. 17 कि०मी० में कुल 3,92,925 पौधों का वृक्षारोपण से संबंधित प्राक्कलन औचित्य सहित समर्पित किया गया है, जिसकी कुल प्राक्कलित राशि **11,27,26,849 /–** (ग्यारह करोड़ सताईस लाख छब्बीस हजार आठ सौ उनचास रुपये) मात्र की है, जिसके तहत वित्तीय वर्ष 2024–25 में अग्रिम कार्य तथा 2025–26 में समापन कार्य का प्रस्ताव दिया गया है तथा आगामी तीन वर्षो में सम्पोषण कार्य प्रस्तावित है, जिसका वर्षवार व्यय से संबंधित संक्षिप्त विवरणी निम्नवत् है :–

क्र. सं.	प्रक्षेत्र का नाम	कार्य स्थल का नाम	कुल पौधें	अग्रिम कार्य 2024–25	समापन कार्य 2025–26	प्रथम सम्पोषण 2026–27	द्वितीय सम्पोषण 2027–28	तृतीय सम्पोषण 2028–29	कुल प्राक्कलित राशि
1.	बक्सर	बक्सर थर्मल पावर प्रोजेक्ट परियोजना की परिसीमा में	392925	75476150	15278068	8778977	9177661	732686	109443543
								Total	**109443543**
								Contigency and Miscellaneous Cost @ 3% Estimated Cost	**3283306**
								Grant Total :-	**11,27,26,849**

समर्पित प्राक्कलन द्वारा प्रतिवेदित किया गया है कि योजना भवदीय कार्यालय आदेश संख्या 4 तथा ज्ञापांक 405 दिनांक 28.04.2024 द्वारा निर्धारित S.O.R. तथा वर्त्तमान में लागू 410 /– रुपये प्रति मजदूर के न्यूनतम मजदूरी दर के आधार पर तैयार कर सक्षम स्तर से तकनीकी स्वीकृति के उपरांत वन संरक्षक, पटना अंचल, पटना द्वारा अनुशंसित एवं अग्रसारित है। इस प्रकार तैयार योजनाओं के सारांश पर अद्योहस्ताक्षरी के स्तर से तकनीकी अनुमोदन कर दिया गया है। उक्त प्राक्कलित राशि संबंधित एजेंसी SJVN Thermal (P.) Ltd (STPL) द्वारा उपलब्ध करायी जाएगी।

अतः वन संरक्षक, पटना अंचल, पटना का 1387 दिनांक 29.08.2024 द्वारा समर्पित योजनाओं को दो प्रतियों में भवदीय सेवार्थ भेजते हुए अनुरोध है कि योजना को आवश्यक कार्रवाई करते हुये प्रमुख (पर्यावरण), STPL, बक्सर थर्मल पावर प्रोजेक्ट, चौसा (बक्सर) को राशि आवंटन हेतु भेजने की कृपा की जाय।

अनु०:–यथोक्त।

विश्वासभाजन,
ह०/–
(डॉ० गोपाल सिंह)

ज्ञापांक– 2 बजट 78 / 2024 – 936 पटना, दिनांक 03 वीं सितंबर, 2024 ई०।

प्रतिलिपि::–योजना की प्रति के साथ प्रमुख (पर्यावरण), एस०टी०पी०एल०, बी०टी०पी०एल०, चौसा, बक्सर को उनके पत्रांक 1605 दिनांक 16.02.2024 के प्रसंग में सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित।

अनु०:–यथोक्त।

3/9/24

(डॉ० गोपाल सिंह)

बिहार सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन विभाग

कार्यालय, वन संरक्षक, पटना अंचल, पटना।

अरण्य भवन, द्वितीय तल, शहीद पीर अली खाँ मार्ग (राईडिंग रोड) पटना– 800014
e-mail- cfpatnacircle@gmail.com

पत्रांक– 1387 /

प्रेषक,

डॉ० गोपाल सिंह, भा०व०से०
वन संरक्षक,
पटना अंचल, पटना।

सेवा में,

क्षेत्रीय मुख्य वन संरक्षक,
पटना।

दिनांक– 29 / 8 / 2024

विषय :– **बक्सर थर्मल पावर प्रोजेक्ट के परिसीमा में ग्रीन बेल्ट विकसित करने हेतु कराये जाने वाले वृक्षारोपण का प्राक्कलन समर्पित करने के संबंध में।**

प्रसंग :– प्रमुख (पर्यावरण), एस.टी.पी.एल., बी.टी.पी.पी., चौसा, बक्सर का कार्यालय पत्रांक–1605 दिनांक–16.02.2024

महाशय,

उपर्युक्त विषयक प्रासंगिक पत्र (छाया प्रति संलग्न) द्वारा किये गये अनुरोध के आलोक में वन प्रमंडल पदाधिकारी, भोजपुर वन प्रमंडल, आरा के पत्रांक–1510 दिनांक–22.08.2024 द्वारा बक्सर थर्मल पावर प्रोजेक्ट के परिसीमा में ग्रीन बेल्ट विकसित करने हेतु 157.17 कि.मी. में कुल 392925 पौधों का वृक्षारोपण से संबंधित प्राक्कलन (औचित्य सहित) समर्पित किया गया है, जिसकी कुल प्राक्कलित राशि **11,27,26,849/–** (ग्यारह करोड़ सताईस लाख छब्बीस हजार आठ सौ उनचास रूपया) मात्र की है, जिसके तहत वित्तीय वर्ष 2024–25 में अग्रिम कार्य तथा 2025–26 में समापन कार्य का प्रस्ताव दिया गया है तथा आगामी तीन वर्षो में सम्पोषण कार्य प्रस्तावित है, जिसका वर्षवार व्यय से संबंधित संक्षिप्त विवरणी निम्नवत् है :–

क्र. सं.	प्रक्षेत्र का नाम	कार्य स्थल का नाम	कुल पौधें	अग्रिम कार्य 2024–25	समापन कार्य 2025–26	प्रथम सम्पोषण 2026–27	द्वितीय सम्पोषण 2027–28	तृतीय सम्पोषण 2028–29	कुल प्राक्कलित राशि
1-	2	3	4	5	6	7	8	9	11
1.	बक्सर	बक्सर थर्मल पावर प्रोजेक्ट परियोजना की परिसीमा में	392925	75476150	15278068	8778977	9177661	732686	109443543
								Total :–	109443543
								Contigency and Miscellaneous Cost @3% Estimated Cost	3283306
								Grant Total :-	112726849

उक्त प्राक्कलन प्रधान मुख्य वन संरक्षक, (विकास) बिहार, पटना के कार्यालय आदेश संख्या–04 तथा ज्ञापांक–405 दिनांक–28.04.2023 द्वारा निर्धारित S.O.R. तथा वर्त्तमान में लागू 410/– रूपया मानव दिवस पर आधारित है। उक्त प्राक्कलित राशि संबंधित एजेंसी एस.टी.पी.एल. द्वारा उपलब्ध करायी जाएगी।

अतः वन प्रमंडल पदाधिकारी, भोजपुर वन प्रमंडल, आरा के पत्रांक–1510 दिनांक–22.08.2024 द्वारा समर्पित प्राक्क्लन को अपेक्षित कार्रवाई के उपरान्त भवदीय सेवार्थ भेजते हुए अनुरोध है कि इसे प्रधान मुख्य वन संरक्षक, (विकास), बिहार, पटना को अग्रेत्तर कार्रवाई हेतु अग्रसारित करने की कृपा की जाय।

विश्वासभाजन,

अनु०–यथोक्त।

(डॉ० गोपाल सिंह)

कार्यालय
क्षेत्रीय मुख्य वन संरक्षक, पटना
प्राप्ति संख्या:- 1881
दिनांक:- 30/08/2024

बिहार सरकार

पर्यावरण, वन एवं जलवायु परिवर्तन विभाग

कार्यालय– वन प्रमण्डल पदाधिकारी, भोजपुर वन प्रमण्डल, आरा।

कानन कोठी, धनुपरा, आरा, पिन–802301, E-mail -dfobhojpurfdivision@gmail.com

पत्रांक– 1510 /

प्रेषक,

विकास अहलावत, भा0व0से0
वन प्रमण्डल पदाधिकारी,
भोजपुर वन प्रमण्डल, आरा।

23/8/24

सेवा में,

वन संरक्षक,
पटना अंचल, पटना।

दिनांक 22 / 08 / 2024

विषय :– बक्सर थर्मल पावर प्रोजेक्ट के परिसीमा में ग्रीन बेल्ट विकसित करने हेतु कराये जाने वाले वृक्षारोपण का संशोधित प्राक्कलन समर्पित करने के संबंध में।

प्रसंग :– भवदीय कार्यालय पत्रांक 1353 दिनांक 12.08.2024

महाशय,

उपर्युक्त विषय के संबंध में सूचित करना है कि बक्सर थर्मल पावर प्रोजेक्ट के परिसीमा में ग्रीन बेल्ट विकसित करने हेतु इस प्रमण्डल द्वारा प्रस्ताव समर्पित किया गया था, जिसमें 175.41 हे0 में कुल 428525 पौधो का अग्रिम एवं समापन कार्य प्रस्तावित है। जिसमें सभी प्रस्तावों को प्रधान मुख्य वन संरक्षक (विकास), बिहार, पटना के पत्रांक 376 दिनांक 10.04.2023 द्वारा दिशा–निर्देश के क्रम में संशोधित कर समर्पित करने हेतु निर्देशित किया गया है। जिसके आलोक में प्राक्कलन पुनः संशोधित कर (विभागीय SOR तथा वर्तमान मजदुरी दर पर) इस पत्र के साथ संलग्न कर समर्पित की जा रही है।

भवदीय सेवा में सूचनार्थ एवं आवश्यक कार्रवाई हेतु समर्पित।

अनु० यथोक्त।

विश्वासभाजन

कार्यालय वन संरक्षक पत्रांक 2766 24/08/24 पटना

वन प्रमण्डल पदाधिकारी,
भोजपुर वन प्रमण्डल, आरा।

Budhel

23/8/24

जल शक्ति अभियान–संचय जल, बेहतर कल

बक्सर थर्मल पावर प्रोजेक्ट के परिसीमा में ग्रीन बेल्ट विकसित करने हेतु कराये जाने वाले ब्लॉक वृक्षारोपण की योजना का औचित्य।

वित्तीय वर्ष 2024–25 एवं 2025–26 में बक्सर थर्मल पावर प्रोजेक्ट के परिसिमा में ग्रीन बेल्ट विकसित करने हेतु वरि0 प्रबंधक (पर्यावरण) एस0टी0पी0एल0, वी0टी0पी0पी0 चौसा, बक्सर से पत्र प्राप्त हुआ। जिसमें कुल 4,28,525 पौधारोपण कार्य हेतु अनुरोध किया गया, जिसके आलोक में उक्त स्थल का निरीक्षण वनों के क्षेत्र पदाधिकारी, बक्सर द्वारा करते हुये ब्लॉक पौधारोपण का प्रस्ताव समर्पित किया गया है। समर्पित की जाने वाली योजना दो चरणों में की जानी है, जिसका विवरण निम्न प्रकार है:–

वित्तीय वर्ष 2024–25 में 35600 ब्लॉक पौधारोपण के अग्रिम कार्य का प्रस्ताव समर्पित किया गया है, जो कुल पाँच वर्षो का योजना है। जिसमें प्रथम वन अग्रिम कार्य तथा शेष चार वर्ष सम्पोषण कार्य का प्रावधान है। बक्सर थर्मल पावर प्रोजेक्ट में ग्रीनबेल्ट विकसित करने से हरित आवरण बढ़ेगा एवं संबंधित स्थल पर प्रदूषण मुक्त वातावरण बनेगा। वृक्षारोपण से वायु प्रदुषण को नियंत्रित करने के लिये हानिकारक गैसों को न केवल अवशोषित करते हुये बल्कि जल प्रदुषण को भी नियंत्रित करने में महत्वपूर्ण भूमिका निभाते है।

वित्तीय वर्ष 2024–25 में 392925 ब्लॉक पौधारोपण के अग्रिम कार्य का प्रस्ताव समर्पित किया गया है, जो कुल पाँच वर्षो का योजना है। जिसमें प्रथम वर्ष अग्रिम कार्य, द्वितीय वर्ष समापन कार्य तथा शेष वर्षो में सम्पोषण कार्य का प्रावधान है। बक्सर थर्मल पावर प्रोजेक्ट में ग्रीनबेल्ट विकसित करने से हरित आवरण बढ़ेगा एवं संबंधित स्थल पर प्रदूषण मुक्त वातावरण बनेगा। वृक्षारोपण से वायु प्रदुषण को नियंत्रित करने के लिये हानिकारक गैसों को न केवल अवशोषित करते हुये बल्कि जल प्रदुषण को भी नियंत्रित करने में महत्वपूर्ण भूमिका निभाते है।

वन प्रमण्डल पदाधिकारी,
भोजपुर वन प्रमण्डल, आरा।

कार्यालय–वन प्रमण्डल पदाधिकारी, भोजपुर वन प्रमण्डल, आरा।

बक्सर थर्मल पावर प्रोजेक्ट

बक्सर थर्मल पावर प्रोजेक्ट ग्रीन बेल्ट विकसित करने हेतु वर्ष 2024–25 में (अग्रिम कार्य) पौधारोपण कार्य का सारांश।

क्रमांक	योजना	कार्य विवरणी	प्रक्षेत्र	कि०मी / हे०	कुल पौधो की संख्या	2024–25	2025–26	2026–27	2027–28	2028–29	प्राक्कलित राशि
						अग्रिम कार्य	समापन कार्य	प्रथम वर्ष सम्पोषण कार्य	द्वितीय वर्ष सम्पोषण कार्य	तृतीय वर्ष सम्पोषण कार्य	
1	अग्रिम एवं समापन कार्य तथा तीन वर्षो का सम्पोषण कार्य सहित वृक्षारोपण कार्य।	बक्सर थर्मल पावर प्रोजेक्ट परियोजना की परिसीमा में।	बक्सर	64.35	160875	21391608	6269586	3621321	3785567	366343	35434424
2				92.82	232050	54084542	9008482	5157656	5392095	366343	74009118
		Sub Total :-		157.17	392925	75476150	15278068	8778977	9177661	732686	**109443543**
	Contingency and Miscellaneous cost for Labour wages Rate Incriment for next year, (@1% Estimated Cost)										**1094435**
	Contingency and Miscellaneous cost for Super Vision and Inspectin Vehicle, Water Tanker and Tracter Vehicle for Watering of Plants and Inspection Hut, (@2% Estimated Cost)										**2188871**
		Grand Total :-		157.17	392925	75476150	15278068	8778977	9177661	732686	**112726849**

वन संरक्षक, पटना अंचल, पटना के पत्रांक 1387 दिनांक 29.08.2024 तथा वन प्रमंडल पदाधिकारी, भोजपुर वन प्रमंडल, आरा के पत्रांक 1510 दिनांक 27.8.2024 के द्वारा सक्षम स्तर से प्रदत्त तकनीकी स्वीकृति के सारांश पर वन संरक्षक, पटना अंचल, पटना की अनुशंसा के आधार रू० 11,27,26,849/– (ग्यारह करोड़ सताईस लाख छबीस हजार आठ सौ उनचास रूपया)के लिए तकनीकी अनुमोदन दी जाती है।

वन प्रमण्डल पदाधिकारी,
भोजपुर वन प्रमण्डल, आरा।

Forwarded
Conservator of Forest
Patna Circle, Patna

क्षेत्रीय मुख्य वन संरक्षक,
पटना।

एसजेवीएन थर्मल (प्रा.) लिमिटेड
SJVN Thermal (P.) Ltd
(एसजेवीएन की पूर्ण स्वामित्ववाली अधीनस्थ कंपनी)
(A wholly owned subsidiary of SJVN)
1320 मेगावाट बक्सर ताप विद्युत परियोजना
1320 MW Buxar Thermal Power Project
CIN: U31908BR2007PTC017646

सं.सं: एसटीपीएल/बीटीपीपी/पर्या0/2024–1605 दिनांक: 16.02.2024

प्रेषक :

प्रमुख (पर्यावरण),
एस.टी.पी.एल., बी.टी.पी.पी.,
चौसा, बक्सर

सेवा में,

वन प्रमण्डल पदाधिकारी,
भोजपुर वन प्रमण्डल, आरा।

विषय : बक्सर थर्मल पावर प्रोजेक्ट में ग्रीन बेल्ट विकसित करने के संबंध में।

उपरोक्त विषय के संबंध में जैसा कि आपसे आज दिनांक 15.02.2024 को मोबाईल पर चर्चा हुई, सूचित करना है कि बक्सर थर्मल पावर प्रोजेक्ट परियोजना बिहार राज्य, बक्सर जिला, चौसा प्रखण्ड में चौसा – सासाराम मुख्य मार्ग पर स्थित है। परियोजना का निर्माण कार्य प्रगति पर है।

पर्यावरण स्वीकृति के अनुसार 171 हेक्टेयर भूमि पर 2500 पौधा प्रति हेक्टेयर के हिसाब से बक्सर थर्मल पावर प्रोजेक्ट परियोजना की परिसीमा में पौधारोपण का कार्य किया जाना है। इस संबंध में पूर्व में भी वन विभाग से पत्राचार किया गया था जिसकी छाया प्रति आपके अवलोकन हेतु संलग्न है।

जैसा कि विदित है कि पौधारोपण/वनीकरण आदि कार्यों में वन विभाग की दक्षता है। इसी को ध्यान में रखते हुए आपसे विनम्र अनुरोध है कि वनरोपण के महत्व को ध्यान में रखते हुए बक्सर पावर प्लांट परिसीमा मे पर्यावरण एवं वन मंत्रालय के अनुसार पौधारोपण एवं आवश्यकता अनुसार रख–रखाव कार्य सम्पादित करने की कृपा करें।

भूमि उपलब्धता के अनुसार प्रस्तावित पौधारोपण प्लान निम्नवत्त है :–

क0 सं0	पौधारोपण की संख्या	क्षेत्रफल (हे0)	पौधारोपण कार्यक्रम
1	15600	6.24	पौधारोपण मार्च 2024 तक
2	20000	8.0	पौधारोपण मॉनसून 2024 के दौरान
3	160875	64.35	पौधारोपण MGR क्षेत्र के अन्तर्गत, रेलवे कार्य पूर्ण होने के उपरान्त
4	232050	92.82	चरणबद्ध पौधारोपण स्थान की उपलब्धता के अनुसार
कुल	428525	171.41	

कमशः 2

पंजीकृत कार्यालयः 169, पाटलीपुत्र कॉलोनी, पटना–800013 (बिहार)
दूरभाषः 0612–2263328
परियोजना कार्यालयः एसजेवीएन थर्मल (प्रा.) लिमिटेड,
मोहनपुरवा, अखौरीपुर गोला चौसा, बक्सर, –802114 (बिहार)
दूरभाषः 06183–295168, फैक्सः 06183–295165
ईमेलः ***stplbuxarenvir@gmail.com***

Regd. Office: 169, Patliputra Colony, Patna – 800013 (Bihar)
Tel : 0612-2263328
Project Office: SJVN Thermal (P) Ltd,
Mohanpurwa, Akhouripur Gola, Chousa, Buxar – 802114 (Bihar)
Tel:**06183-295168**, **Fax: 06183-295165**
E-mail: stplbuxarenvir@gmail.com

उपरोक्त कार्य हेतु वित्तीय भार एस.टी.पी.एल. द्वारा वहन किया जायेगा। इस संदर्भ में वित्तीय प्राक्कलन इस कार्यालय को उपलब्ध कराने की कृपा करें, ताकि विभागीय अनुमोदन इत्यादि प्राप्त किया जा सके।

धन्यवाद

भवदीय

16.2.24

(उदय कुमार सिन्हा)
प्रमुख (पर्यावरण),
एस.टी.पी.एल., बी.टी.पी.पी.,
चौसा, बक्सर

एसजेवीएन थर्मल (प्रा.) लिमिटेड
SJVN Thermal (P.) Ltd
(एसजेवीएन की पूर्ण स्वामित्ववाली अधीनस्थ कंपनी)
(A wholly owned subsidiary of SJVN)
1320 मेगावाट बक्सर ताप विद्युत परियोजना
1320 MW Buxar Thermal Power Project
CIN: U31908BR2007PTC017646

संः संः एसटीपीएल/बीटीपीपी/पर्या0/2024– 1644

दिनांकः 23.03.2024

सेवा में,

वन परिक्षेत्र पदाधिकारी, बक्सर
वन परिक्षेत्र, बक्सर

विषयः– बक्सर ताप विद्युत परियोजना में ग्रीन बेल्ट विकसित करने के संबंध में।

सन्दर्भः– एस.टी.पी.एल., चौसा पत्रांक संख्या 1605, दिनांक 16.02.2024

महोदय,

उपरोक्त संदर्भित पत्र द्वारा बक्सर ताप विद्युत परियोजना में ग्रीन बेल्ट विकसित करने हेतु वन प्रमण्डल पदाधिकारी, भोजपुर वन प्रमण्डल, आरा से अनुरोध किया गया था। इस संबंध में अनुरोध है कि पर्यावरण एवं वन मंत्रालय भारत सरकार के पत्र संख्या– J-13012/69/2008-IA.I(T), dated 15.03.2024 द्वारा पुनः मार्च 2024 तक 15600 पौधारोपण कार्य को पूरा करने के लिए निर्देशित किया गया है।

अतः महोदय से अनुरोध है कि मार्च 2024 तक 15600 पौधारोपण कार्य को पूरा करने के संबंध में आवश्यक कार्यवाही करने की कृपा करें।

धन्यवाद।

भवदीय

23/03/24

(अजय कुमार वर्मा)
वरि0 प्रबंधक (पर्यावरण),
एस.टी.पी.एल., बी.टी.पी.पी.,
चौसा, बक्सर

पंजीकृत कार्यालयः 169, पाटलीपुत्र कॉलोनी, पटना–800013 (बिहार)
दूरभाषः 0612–2263328
परियोजना कार्यालयः एसजेवीएन थर्मल (प्रा,) लिमिटेड,
मोहनपुरवा, अखौरीपुर गोला चौसा, बक्सर, –802114 (बिहार)
दूरभाषः 06183–295168, फैक्सः 06183–295165
ईमेलः ***env.stpl@sjvn.nic.in***

Regd. Office: 169, Patliputra Colony, Patna – 800013 (Bihar)
Tel : 0612-2263328
Project Office: SJVN Thermal (P) Ltd,
Mohanpurwa, Akhouripur Gola, Chousa, Buxar – 802114 (Bihar)
Tel:**06183-295168**, **Fax: 06183-295165**
E-mail: env.stpl@sjvn.nic.in

सत्यमेव जयते

File No: J-13012/69/2008-IA.I (T)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division
***

Dated **15/03/2024**

To,

Shri Ajay Kumar Verma, Senior Manager
M/s SJVN THERMAL PVT LTD
CEO, BUXAR THERMAL POWER PROJECT, PLOT NO 192, WARD NO 02, CIRCLE- 06,
TALPATRA LANE, BUDH MARG, PATNA, 800001
env.stpl@sjvn.nic.in

Subject: **Expansion of Buxar Thermal Power Project from 1320 MW to 1980 MW by installing 1x660 MW plant unit in an area of 620.43 Ha at Village Akhauripur, Banarpur, Kathtar and etc., Sub-District Chausa, District Buxar, Bihar by M/s SJVN Thermal Pvt. Ltd. – regarding Terms of References (TOR)**

Sir/Madam,

This is in reference to your application for Grant of Terms of Reference under the provision of the EIA Notification 2006-regarding in respect of project Proposed Expansion from 1320 MW to 1980 MW Buxar Thermal Power Project by installing 1x660 MW plant unit Near Chausa, district Buxar, Bihar submitted to Ministry vide proposal number IA/BR/THE/439566/2023 dated 10/10/2023.

2. The particulars of the proposal are as below :

(i) TOR Identification No.	TO23A0601BR5368323N
(ii) File No.	J-13012/69/2008-IA.I (T)
(iii) Clearance Type	TOR
(iv) Category	A
(v) Project/Activity Included Schedule No.	1(d) Thermal Power Plants
(vi) Sector	Thermal Projects
(vii) Name of Project	Proposed Expansion from 1320 MW to 1980 MW Buxar Thermal Power Project by installing 1x660 MW plant unit Near Chausa, district Buxar, Bihar
(viii) Name of Company/Organization	SJVN THERMAL PVT LTD
(ix) Location of Project (District, State)	BUXAR, BIHAR
(x) Issuing Authority	MoEF&CC
(xii) Applicability of General Conditions	yes
(xiii) Applicability of Specific Conditions	no

	m (For Stage - I) Type of flue - Flue Gas Desulphurization (FGD) and Selective Catalytic Reduction (SCR) shall be installed in the proposed Thermal Power Plant.

(v) Water Requirement: Total water requirement during operation phase is 85 cusec, out of which 30 cusec is required for proposed expansion. The makeup water for the project is proposed to be drawn from River Ganga a distance of about 5kms. MoU for drawl of 55 Cusec water from river Ganga has been signed with Govt. of Bihar for Stage-I (1320 MW) and approval for Govt. of Bihar is to be obtained for additional 30 Cusec water for 1X660 MW.

(vi) Land Area Breakup:

Land Requirement: a. TPP Site b. Ash Pond c. Township d. Railway Siding & Others e. Raw Water Reservoir f. Green Belt g. others Total (if expansion state additional land requirement)	**Description**	**Areas in Acres**		
		Existing	**Proposed**	**Total**
	Main plant, BOP & CHP & Misc. facilities	130.76	0	130.76
	Ash pond	114.17	67	181.17
	Green Belt	171.25	34	205.25
	Township	12.15	00	12.15
	Land for miscellaneous facilities like roads, etc.	24.29	00	24.29
	Rail and water	66.80	00	66.80
	Total	**519.43**	**101**	**620.43**
Status of Land Acquisition:	Land for Stage-I is already acquired and land for Stage-2 is under identification.			
Status of the project: .	Stage - I is in under construction.			

6. The Sub-Committee of EAC has visited the Project site from 04.01.2024 to 06.01.2024. Details site visit report is attached herewith for strict compliance to safeguard the environment. The EAC deliberated on the subcommittee report including about quality of road leading towards SJVN office as it not easily approachable and plantation that will be carried out on upcoming months. In response, M/s SJVNL vide email dated 14.02.2024 submitted the following:

i. The road leading to office of SJVN will be completed by 31st March 2024.

ii. 15600 plants as target to be planted during Jan/Feb 2024 will be completed by planting saplings by 31st March, 2024.

Status/compliance report on *the observations of the Sub-committee including detailed action plan for the development of the Green Belt, which shall include the plantation implementation schedule, the name of the implementing agency, and budgetary provisions/allocations* and *above response submitted vide email dated 14.02.2024* shall be submitted along with EIA/EMP report for proposed expansion.

7. The EAC after detailed deliberation on *the information submitted by the M/s SJVNL and as presented during the meeting* and *observations of the sub-committee* , recommended for grant of Standard ToR for conducting EIA study with Public Consultation (Hearing& Written submission) to the project for construction of the Expansion from 1320 MW to 1980 MW Buxar Thermal Power Project by installing 1x660 MW plant unit Near Chausa, district Buxar, Bihar by M/s SJVN Thermal Pvt. Ltd.under the provisions of the EIA Notification, 2006, as amended along with the additional/specific ToR (Annexure 1).

8. The MoEF&CC has examined the proposal in accordance with the provisions contained in the Environment Impact

कार्यालय, वन प्रमण्डल पदाधिकारी, भोजपुर वन प्रमण्डल, आरा।

कानन कोठी, धनुपरा, आरा, पिन–802301, E-mail -dfobhojpurfdivision@gmail.com

पत्रांक– 321 /

प्रेषक,

विकास अहलावत, भा0व0से0
वन प्रमण्डल पदाधिकारी,
भोजपुर वन प्रमण्डल, आरा।

सेवा में,

प्रमुख (पर्यावरण),
एस०टी०पी०एल०, बी०टी०पी०पी०,
चौसा, बक्सर।

दिनांक 19 / 02 / 2024

विषय :– बक्सर थर्मल पावर प्रोजेक्ट में ग्रीन बेल्ट विकसित करने के संबंध में।
प्रसंग :– आपका कार्यालय पत्रांक–1605 दिनांक–16.02.2024

महाशय,

उपर्युक्त विषयक प्रासंगिक पत्र के संदर्भ में सूचित करना हैं कि बक्सर थर्मल पावर प्रोजेक्ट में ग्रीन बेल्ट विकसित करने हेतु बक्सर थर्मल पावर प्रोजेक्ट परियोजना की परिसीमा में वृक्षारोपण के कार्य समर्पित प्रस्ताव पर अधोहस्ताक्षरी के द्वारा संयुक्त निरीक्षण किया गया। जिसके आलोक में दिनांक–20.02.2024 को अपराह्न 12:30 बजे अधोहस्तक्षारी के कार्यालय कक्ष में बैठक निर्धारित की गयी हैं।

अतः अनुरोध हैं कि उक्त बैठक में ससमय भाग लेना सुनिश्चित करेंगें।

विश्वासभाजन

वन प्रमण्डल पदाधिकारी,
भोजपुर वन प्रमण्डल, आरा।

एसजेवीएन थर्मल (प्रा.) लिमिटेड
SJVN Thermal (P.) Ltd
(एसजेवीएन की पूर्ण स्वामित्ववाली अधीनस्थ कंपनी)
(A wholly owned subsidiary of SJVN)
1320 मेगावाट बक्सर ताप विद्युत परियोजना
1320 MW Buxar Thermal Power Project
CIN: U31908BR2007PTC017646

सं.सं: एसटीपीएल/बीटीपीपी/पर्या0/2024– 1652 दिनांक: 30.03.2024

सेवा में,

वन प्रमण्डल पदाधिकारी,
भोजपुर वन प्रमण्डल, आरा

विषयः– बक्सर ताप विद्युत परियोजना में ग्रीन बेल्ट विकसित करने के संबंध में।

सन्दर्भः– एस.टी.पी.एल., चौसा पत्रांक संख्या 1605, दिनांक 16.02.2024 एवं पत्रांक 1644, दिनांक 23.03.2024

महोदय,

उपरोक्त संदर्भित पत्र द्वारा बक्सर ताप विद्युत परियोजना में ग्रीन बेल्ट विकसित करने हेतु वन प्रमण्डल पदाधिकारी, भोजपुर वन प्रमण्डल, आरा से अनुरोध किया गया था। इस संबंध में अनुरोध है कि पर्यावरण एवं वन मंत्रालय भारत सरकार के पत्र संख्या– J-13012/69/2008-IA.I(T), dated 15.03.2024 द्वारा पुनः मार्च 2024 तक 15600 पौधारोपण कार्य को पूरा करने के लिए निर्देशित किया गया है।

अतः महोदय से अनुरोध है कि इस संबंध में आवश्यक कार्यवाही करने की कृपा करें।

धन्यवाद।

भवदीय

30/03/2024

(अजय कुमार वर्मा)
वरि0 प्रबंधक (पर्यावरण),
एस.टी.पी.एल., बी.टी.पी.पी.,
चौसा, बक्सर

प्रतिलिपिः– वन परिक्षेत्र पदाधिकारी, बक्सर, वन परिक्षेत्र, बक्सर को सूचनार्थ एवं आवश्यक कार्यवाही हेतु सादर समर्पित।

पंजीकृत कार्यालयः 169, पाटलीपुत्र कॉलोनी, पटना–800013 (बिहार)
दूरभाषः 0612–2263328
परियोजना कार्यालयः एसजेवीएन थर्मल (प्रा.) लिमिटेड,
मोहनपुरवा, अखौरीपुर गोला चौसा, बक्सर, –802114 (बिहार)
दूरभाषः 06183–295168, फैक्सः 06183–295165
ईमेलः ***env.stpl@sjvn.nic.in***

Regd. Office: 169, Patliputra Colony, Patna – 800013 (Bihar)
Tel : 0612-2263328
Project Office: SJVN Thermal (P) Ltd,
Mohanpurwa, Akhouripur Gola, Chousa, Buxar – 802114 (Bihar)
Tel:**06183-295168, Fax: 06183-295165**
E-mail: env.stpl@sjvn.nic.in

एसजेवीएनथर्मल प्रा0 लिमिटेड
(एसजेवीएन लि0 की पूर्णस्वामित्वकासहायकम्पनी)
बक्सरथर्मलपॉवरप्रोजेक्ट
चरित्रवन, बक्सर
CIN:U31908BR2007PTC017546 Phone: 06183-222275 Fax: 06183-222282

संख्या : एस.टी.पी.एल/बी.टी.पी.पी/सी.ई.ओ./पर्यावरण/17 दिनांकः

प्रेषक :
मुख्य कार्यपालक अधिकारी,
एस.टी.पी.एल, बी.टी.पी.पी,
बक्सर

सेवा में,
सुरेश प्रसाद
वन प्रमण्डल पदाधिकारी,
भोजपुर वन प्रमण्डल, आरा

विषय : बक्सर थर्मल पावर प्राजेक्ट मे ग्रीन बेल्ट विकसित करने के संबंध में ।

प्रसंग : पत्रांक 2286 दिनांक 23.08.17

उपर्युक्त विषय के संबंध में सूचित करना है कि आपके पत्र संख्या 2286 दिनांक 23.08.17 के द्वारा प्रतिवेदन किया गया था कि 72 हे0 क्षेत्र के आधे भाग में बड़ा माउण्ड तथा आधे क्षेत्र मे मध्यम साईज के माउण्ड बनाकर वनरोपण करना श्रेयकर रहेगा । तदपश्चात वनरोपण के लिए उपलब्ध क्षेत्र की ड्राइंग तथा अन्य विवरण पत्र संख्या एस.टी.पी.एल/बी.टी.पी.पी/सी.ई.ओ./पर्यावरण/17-402 दिनांक 30.08.17 द्वारा भेजा गया था । इसी कम में दिनांक 26.09.17 को आपसे मोबाईल पर उपर्युक्त कार्य को समपन्न कराने के लागीत राशि के संबंध में बात हुई । इस संदर्भ में सूचित करना है कि वनरोपण पर जो भी राशि खर्च होगी उसका वहन एस.टी.पी.एल के द्वारा किया जाएगा ।

1485 26/9/17

अतः आपसे अनुरोध है कि वनरोपण के महत्व को ध्यान में रखते हुए यथासंभव हो आगे की कार्यावाही करने की कृपा की जाये।

धन्यावाद ।

विश्वासभाजन

26/9/2017

कार्यालय– वन प्रमण्डल पदाधिकारी, भोजपुर वन प्रमण्डल, आरा।

पत्रांक– ...../ दिनांक– ...../

प्रेषक,

डॉ0 सुरेश प्रसाद,
वन प्रमण्डल पदाधिकारी,
भोजपुर वन प्रमण्डल, आरा।

सेवा में,

वन संरक्षक,
पटना अंचल, पटना।

विषय :– बक्सर थर्मल पावर प्रोजेक्ट में ग्रीन बेल्ट विकसित करने के संबंध में।

महाशय,

उपर्युक्त विषय के संबंध में सूचित करना हैं कि प्रधान मुख्य वन संरक्षक, बिहार, पटना के पत्रांक 539 दिनांक 11.08.2017 (छाया प्रति संलग्न) द्वारा विषयांकित से संबंधित थर्मल पावर प्रोजेक्ट बक्सर में ग्रीन बेल्ट विकसित करने हेतु आवश्यक सहयोग प्रदान करने का निदेश प्राप्त हुआ है।

2. उक्त प्राप्त निदेश के आलोक में वनों के क्षेत्र पदाधिकारी, बक्सर एवं वनपाल द्वारा प्रोजेक्ट के पदाधिकारियों के साथ स्थल निरीक्षण करते हुए अपने पत्रांक 298 दिनांक 12.08.2017 (छाया प्रति संलग्न) द्वारा निरीक्षण प्रतिवेदन कार्यालय में उपलब्ध कराया गया है जिसमें उल्लेख है कि 72 हे0 के पूरे क्षेत्र में चारो तरफ कटीले तार से घेरान है तथा 72 हे0 में आधे भाग पर बड़ा माउण्ड एवं नीचले भाग पर मध्यम या पीट बनाकर वनरोपण कार्य किया जा सकता है।

3. तत्पश्चात् मुख्य कार्यकारी अधिकारी, एस जे वी एन प्र0 लिमिटेड के पत्रांक 402 दिनांक 30.08.2017 (सानुलग्नक छाया प्रति) द्वारा सूचित किया गया है कि 72 हे0 क्षेत्र में नीचले भूमि पर पीट एवं आधे भूमि पर बड़ा माउण्ड अथवा मध्यम माउण्ड बनाया जाए तथा उक्त स्थल का नक्शा संलग्न करते हुए Ministry of Environment Forest and climate change के पत्र दिनांक 28.02.2017 (छाया प्रति संलग्न) के प्रावधानों के अनुसार वनरोपण कार्य करने तथा 1 हे0 में 2500 पौधे लगाने हेतु अनुरोध किया गया है साथ ही पौघो की प्रजाति की सूची समर्पित की गयी है।

अतः उपर्युक्त परिपेक्ष्य के आलोक में अनुरोध है कि वनरोपण कार्य हेतु आवश्यक निदेश देने की कृपा की जाए।

अनुलग्नकः– यथोक्त।

विश्वासभाजन
–ह0/–
वन प्रमण्डल पदाधिकारी,
भोजपुर वन प्रमण्डल, आरा।

ज्ञापांक...../ **दिनांक**...../

प्रतिलिपि प्रधान मुख्य वन संरक्षक, बिहार, पटना के उनके पत्रांक दिनांक 11.08.2017 के प्रसंग में सूचना एवं आवश्यक कार्रवाई हेतु प्रेषित। अनुरोध है कि विषयक स्थल पर वनरोपण कार्य करने हेतु आवश्यक निदेश देने की कृपा की जाए।

–ह0/–
वन प्रमण्डल पदाधिकारी,
भोजपुर वन प्रमण्डल, आरा।

महावीर भवन, क्लब रोड, आरा, पिन–802301, दूरभाष/फैक्स सं0–06182–248090
Email id-dfobhojpurfdivision@gmail.com

20/9/17

ज्ञापांक 2556 / दिनांक 16/9/17

प्रतिलिपि मुख्य कार्यकारी अधिकारी, एसजेवीएन थर्मल प्र0 लिमिटेड द्वितीय तल, नवदूर्गा कॉम्पलेक्स, कलेक्टेरियट रोड अम्बेडकर चौक, बक्सर 802101 को उनके पत्रांक 402 दिनांक 30.08.2017 के प्रसंग में सूचनार्थ प्रेषित।

16/9/17

वन प्रमण्डल पदाधिकारी,
भोजपुर वन प्रमण्डल, आरा।

महावीर भवन, क्लब रोड, आरा, पिन–802301, दूरभाष/फैक्स सं0–06182–248090
Email id-dfobhojpurfdivision@gmail.com

SJVN Thermal Pvt. Limited

(A wholly owned subsidiary of SJVN Ltd. A Mini Ratna & Scheduled 'A' PSU under Govt. of India)

Buxar Thermal Power Project (1320 MW)

BTPP Office Complex, Teacher's Colony Opp. ITI Field, Charitravan, Buxar - 802101 (Bihar)

CIN:U31908BR2007PTC017646 Phone: 06183-222275 Fax: 06183-222282

संख्या : एस.टी.पी.एल/बी.टी.पी.पी/सी.ई.ओ./पर्यावरण/17- 402 दिनांकः 30/08/17

प्रेषक :

मुख्य कार्यपालक अधिकारी,

एस.टी.पी.एल, बी.टी.पी.पी,

बक्सर

सेवा में,

सुरेश प्रसाद

वन प्रमण्डल पदाधिकारी,

भोजपुर वन प्रमण्डल, आरा

विषय : बक्सर थर्मल पावर प्राजेक्ट मे ग्रीन बेल्ट विकसित करने के संबंध में ।

प्रसंग : प्रत्रांक 2286 दिनांक 23.08.17

उपर्युक्त विषय के संबंध में सूचित करना है कि आपके पत्र संख्या 2286 दिनांक 23.08.17 के द्वारा प्रतिवेदन किया गया है कि 72 हे0 क्षेत्र के आधे भाग में बड़ा माउण्ड तथा आधे क्षेत्र मे मध्यम साईज के माउण्ड बनाकर वनरोपण करना श्रेयकर रहेगा । इस संदर्भ में कहना है कि जिन क्षेत्रों का लेवल RL64m से ऊपर है वहां पीट तथा बाकी क्षेत्रों मे बड़ा अथवा मध्यम साईज के माउण्ड बनाकर वनरोपण किया जा सकता है । वनरोपण के लिए उपलब्ध क्षेत्र की drawing तथा अन्य विवरण संलग्न किया जा रहा है ।

अतः आपसे अनुरोध है कि वनरोपण में भूमि के EL को ध्यान मे रखकर तथा संलग्नित बेडों की सूची को यथासंभव हो सम्मिलित कर आगे की कार्यावाही करने की कृपा की जाये । इसके अतिरिक्त और कोई आवश्यकता हो कृप्या सूचित करें ।

धन्यावाद ।

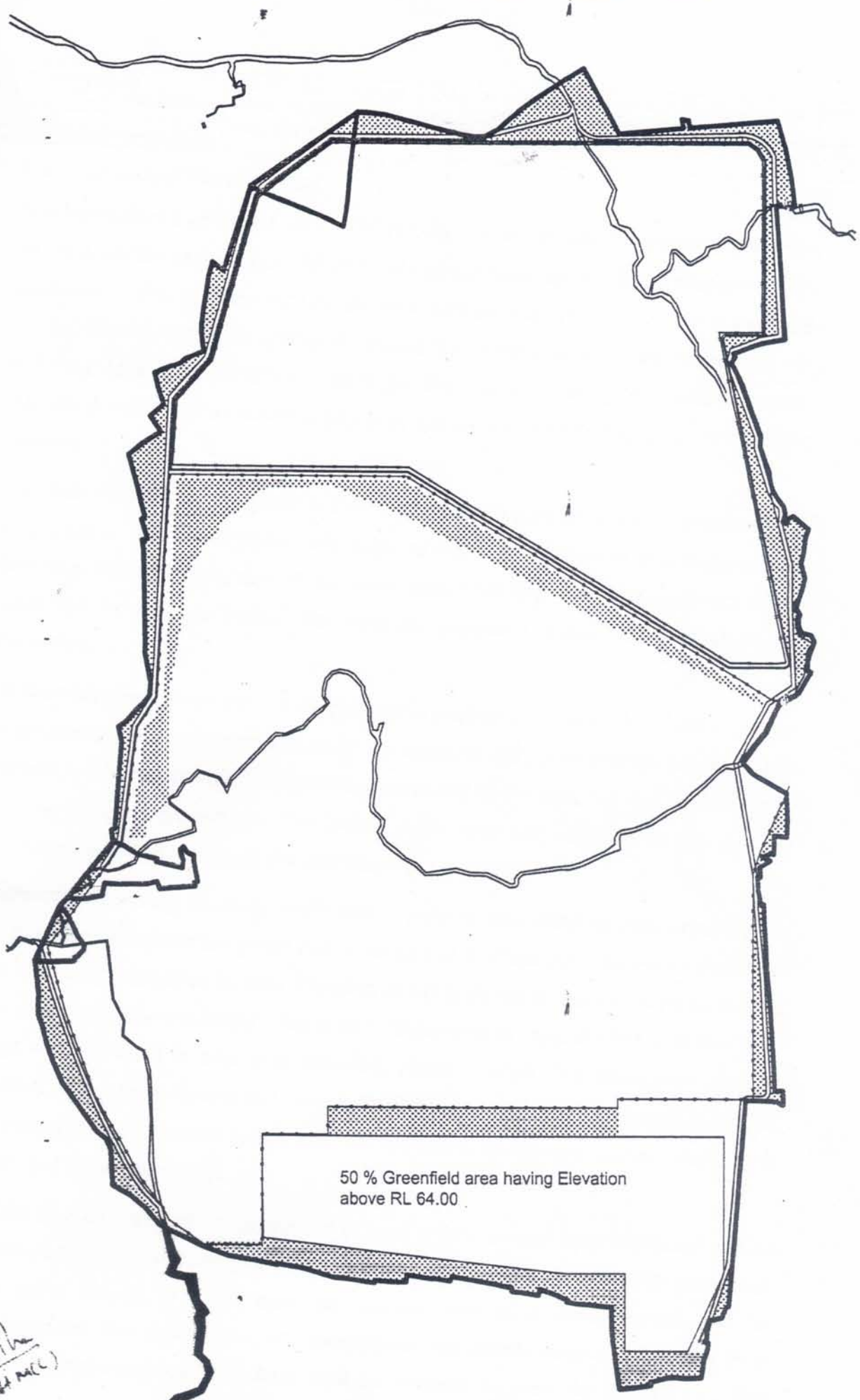
विश्वासभाजन

30/08/2017

प्रवीन गुप्ता
मुख्य कार्यकारी अधिकारी
एसजेवीएन थर्मल प्रा० लिमिटेड
टीचर्स कॉलोनी, आईटीआई फील्ड के सामने, चरित्रवन, बक्सर-802101 (बिहार)

अनुलग्नक

i) Drawing of green belt & detail of Elevation
ii) Letter of MOEP
iii) EIA Study Report



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9.6. Green belt Development

Development of a greenbelt with suitable plant species around the source of emission will mitigate the air pollution. Selection of suitable plant species for a greenbelt is very important. Based on these indices, the most appropriate plant species were identified for the development of a greenbelt around the thermal power plant to mitigate air pollution. Among the 30 different plant species evaluated during the research studies, *Mangifera indica* was identified as keystone species which is coming under the excellent category.

The main objective of the green belt is to provide a barrier between the plant and the surrounding areas. The green belt helps to capture the fugitive emissions and to attenuate the noise generated in the plant apart from improving the aesthetics of the plant site. In order to control the industrial pollutants, dense tree plantations are necessary.

As the sedimentation pattern of the pollutants, ambient and ground level concentration of pollutants are usually determined by the direction and speed of prevailing wind and vertical and horizontal thermal gradients prevailing in the area, the belt of plantations will be designed accordingly. The width of the tree belt depends on the gaseous emissions, availability of land, site characteristics etc.

Geometry of planting of tree is important in order to have effective wind break by the plantation. For an effective green belt, a mixture of tree species is necessary and some shrubs and grasses shall be inter-cropped. As far as possible, there shall be no gaps in the green belt. Where opening is imperative, alignments to roads shall be such that open gaps are prevented to overcome funneling action of wind. The interspaces shall be planted with grasses, bushes and hedges. Thus, the green belt provided would have a set of rows of trees planted in such a way that they form an effective barrier between the plant and the surroundings.

A 100 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. The plant density of 2,500 trees per hectare with local native species will be implemented. The expenditure on development and maintenance of green belt is of revenue nature and sufficient fund shall be provided to meet the requirement. The

plantation schedule will be completed within five years from the construction period of the project.

- While selecting the plant species for the proposed green belt, the following points shall be taken into consideration: • Should be a fast growing type; • Should have a thick canopy cover; • Should be perennially green; • Should be preferably of native origin; and • Should have a large leaf area index, Mitigate gaseous emissions, Have sufficient capability to arrest accidental release, Effective in wastewater reuse, Maintain the ecological balance, Control noise pollution to a considerable extent. Prevent soil erosion. Improve the Aesthetics.

Taking the above-mentioned criteria into consideration, the proposed green belt would be covering around 33% of the total area. The green belt would be consisting of shrubs, trees, avenue trees, revenue trees, crops and potted plants. All the species suggested are pollution tolerant, besides having an aesthetic appeal.

9.6.1. Criteria for Selection of Species (Selection of species done as per Green Belt Development Plan given by CPCB manual, MoEF&CC)

Tolerance to inorganic chemicals, Vertical root development system, Locally available, Fast growing and perennial, Low water requirement, Availability of seed material; Tolerance to pollution and specific conditions or alternatively wide adaptability to ecophysiological conditions; Rapid growth; Capacity to endure water stress and climatic extremes after initial establishment; Differences in height, growth habits and bole shapes; Pleasing appearance; Capacity to selectively concentrate some materials from the surroundings; Providing shades; Large bio-mass and leaves number to provide fodder and fuel; Ability of fixing atmospheric Nitrogen; and Improving waste lands.

To undertake plantation on site for different purposes, following steps will be involved

- Raising seedlings in nursery;
- Preparation of pits and preparing them for transfer of seedlings; and
- After-care i.e. nurturing the sapling for proper growth.

Raising Seedlings in Nursery

Seedlings should be raised in nurseries. Adequate number of surplus seedlings should be available considering 10% mortality in seedlings. Healthy seedlings should be ready for transfer to permanent location before rainy season.

Preparation of Pits and preparing them for Transfer of Seedlings

- Standard pit size would be 45 cm x 45 cm x 45 cm;
- The distance between pits would vary depending on their location;
- The pits should be filled using good soil from nearby agricultural fields (3 parts) and farm yard manure (1 part);
- Rhizobium commercial preparation (1 kg/1000 kg);
- BHC powder, if the soil inhabits white ants (Amount variable); and
- The pits should be watered prior to plantation of seedlings.

A model plan suitable for plantation in the site

Around 20 plants were suggested under the green belt plan and around 22 lakhs financial budget is proposed to develop the habitat. As given in the **Table 9.5**, species like *Mangifera indica, Terminalia tomentosa, Acacia niloFtica, Tectona grandis, Acacia auriculiformis, Pongamia pinnata, Butea monosperma, Dendrocalamus strictus, Delonix regia, Azadirachta indica,* can be raised in large number towards all the directions near the plant boundary. Species like *Leucaena leucocephala, Agave Americana, Cassia fistula, Cassine albens, Dalbergia paniculata, Ficus benghalensis, Ficus religiosa, Ficus glomerata, Limonia acidissima, Phyllanthus emblica, Strychnos potatorum, Pterocarpus santalinus, Anona squamosa, Bauhinia purpurea, Collistemon linearis, Bauhinia acuminate* can be raised in buffer areas. Small herbs, ornamental species and common flowering plants as per the availability can also be raised [illegible] and corridors of the existing buildings and townships.

Table 9-5 List of plants identified for greenbelt and plantations within the Power plant area (Three tier model along the fencing wall)

Botanical name	No. of Trees	Family	Importance
Acacia auriculiformis	100	Mimosaceae	Avenue tree
Mangifera indica	200	Anacardiaceae	Best tree for Power plants which has high APTI value.
Albizia lebbeck	50	Mimosaceae	Shade, timber and scented flowers
Azadirachta indica	100	Meliaceae	Neem oil & neem products
Callistemon citrinus	50	Myrtaceae	Ornamental tree
Calophyllum inophyllum	150	Clusiaceae	Multipurpose
Cassia fistula	150	Caesalpiniaceae	Ornamental and bark is a source of tannin

Botanical name	No. of Trees	Family	Importance
Casuarina equisetifolia	150	Casuarinaceae	Pulp and construction material
Cocos nucifera	150	Arecaceae	Grown commercially for coconut fruit
Delonix regia	100	Caesalpiniaceae	Ornamental avenue tree
Dendrocalamus strictus	100	Poaceae	Bamboo
Ficus benghalensis	100	Moraceae	Shade and a source of food for birds
Ficus racemosa	50	Moraceae	Edible fruits
Ficus religiosa	50	Moraceae	Shade and a source of food for birds
Holoptelia integrifolia	50	Ulmaceae	Fibre and timber
Peltophorum pterocarpum	50	Caesalpiniaceae	Shade
Polyalthia longifolia	100	Annonaceae	Avenue tree
Polyalthia pendula	150	Annonaceae	Majestic tree with drooping branches
Pongamia pinnata	200	Papilionaceae	Source of biodiesel
Samania saman	200	Mimosaceae	Shade, timber and fruits are a good live stock feed.

Table 9-6 Proposed financial Budget for the Green belt development (Rs in Lakhs)

S.No	Component	First year	Second year	Third year	Fourth year	Fifth year	Total
1	Plant seeds/ saplings	2.0	2.0	2.0	2.0	2.0	10.0
2	Pits and watering	0.4	0.4	0.4	0.4	0.4	2.0
3	Regular maintenance	0.4	0.4	0.4	0.4	0.4	2.0
4	Transportation	0.2	0.2	0.2	0.2	0.2	1.0
Grand Total		**3.0**	**3.0**	**3.0**	**3.0**	**3.0**	**15.0**

Table 9-7 Proposed financial Budget for the habitat conservation (Rs in Lakhs)

S.No	Component	First year	Second year	Third year	Fourth year	Fifth year	Total
1	Plant seeds/ saplings	5.0	1.5	-	-	-	6.5
2	Ecologist	2.5	2.5	2.5	2.5	-	10.0
3	Regular maintenance	0.5	0.5	0.5	0.5	0.5	2.5
4	Transportation	0.2	0.2	0.2	0.2	0.2	1.0
5	Conservation of *Blackbuck*	0.8	0.3	0.3	0.3	0.3	2.0
Grand Total		**9.0**	**5.0**	**3.5**	**3.5**	**1.0**	**22.0**

SJVN Thermal Pvt. Ltd.

एसजेवीएन थर्मल प्रा0 लिमिटेड

(A wholly owned subsidiary of SJVN Ltd- A Mini Ratna & Scheduled 'A' PSU under Govt. of India)

द्वितीय तल, नवदुर्गा कॉम्पलेक्स, कलेक्टेरियट रोड, अम्बेडकर चौक, बक्सर–802101 (बिहार)

2nd Floor, Nav Durga Complex, Collectoriate Road, Ambedkar Chowk, Buxar - 802101

OFFICE OF CEO

CIN:U31908BR2007PTC017646

☎: 06183-223105 🖷: 06183-223165

Email:ceostpl@gmail.com/hopbtpp@gmail.com

No. STPL/BTPP/CEO/Envi./17- 307 Date: 21.07.2017

To,

Principal Chief Conservator of Forest
Environment and Forest Dept., Govt. of Bihar,
Aranya Bhawan, Patna, Bihar

Sub: Green belt Development.

Sir,

The Buxar Thermal Power Project (2X660 MW) at near village Chausa, District Buxar, Bihar has been allocated to SJVN Thermal Pvt. Ltd. (***A wholly owned subsidiary of SJVN Ltd. A Mini Ratna & Scheduled 'A' PSU under Govt. of India)*** for execution and implementation. The MOU to this effect was signed on 17.01.2013 amongst **Bihar State Power (Holding) Company limited, SJVN Ltd** and **Bihar Power Infrastructure Company Private Limited** for 2 years, which was further extended for another 5 years. The process for acquisition of land for SJVN has been completed by the state administrations during March 2016. The barbed wire fencing of Acquired Land has also been completed during the month of July 2016. The construction activities of thermal power plant are likely to be taken up during the year 2017-18.

In this regard, it is proposed to develop a greenbelt in the area of about 178 acre in various phases/stages during construction of Buxar Thermal Power Project. The density should not be less than 2500 Nos. per ha.

Considering that your department have expertise in the area of afforestation/plantation, we would like to take your services in developing greenbelt area in our project.

In view of above, it is requested to convey your in principle consent for helping us in developing greenbelt area around our project.

Thanking you,

Yours faithfully,

21/07/2017

(Parveen Gupta)
Chief Executive officer (STPL)

NOO:

cc: Chief Manager (Civil), BTPP, Buxar.

Appendix-2

Appendix-3

सत्यमेव जयते

No.FU-18/2017-IPC
Government of India
Ministry of Power

Shram Shakti Bhawan, Rafi Marg
New Delhi dated 08.03.2019

To,

The Chairman & Managing Director
SJVN Limited, Corporate Office Complex,
Shanan, Shimla (HP)-171006

Sub: Investment Approval for 1320 MW Buxar TPP being executed through SJVN Thermal Pvt. Ltd. (a wholly owned Subsidiary of SJVN Limited), regarding.

In reference to communication received from Cabinet Secretariat vide D.O. No. CCEA/07/2019(vii) dated 07.03.2019, the undersigned is directed to inform that the Government has approved the following:

(a) The implementation of 1320 MW Buxar Thermal Power Project with an investment of Rs. 10,439.09 Crore including Interest During Construction (IDC) of Rs. 1146.50 Crore and Financing Charges (FC) of Rs. 36.54 Crore at January 2018 Price Level since SJVNL has given commitment to complete and commission the project with no cost and time overrun subject to variation on account of taxes and duties, foreign currency exchange rates, force majeure and circumstances beyond the control of SJVNL.

(b) Supply of not less than 85% of generated power to power distribution company(ies) of Bihar Govt in accordance with the Memorandum of Understanding with the Govt of Bihar,

(c) Ex-post facto approval for the cumulative expenditure amounting to Rs. 533.50 Crore against investment approval for pre-construction activities amounting to Rs. 436.68 Crore.

(d) Ex–post facto approval for creation of SJVN Thermal Pvt. Ltd. - 100% (wholly) owned subsidiary of SJVN Ltd. and

(e) Approval for equity investment upto Rs. 3131.72 Crores at 30% of total project cost at January 2018 Price level by SJVN Ltd. in SJVN Thermal Pvt. Ltd. for implementation of 1320 MW Buxar Thermal Power Project.

2. Commercial Operation Date (COD) of the first unit (660 MW) is envisaged in 52 months from the date of investment approval and the second unit (660 MW) at an interval of six months thereafter.

3. This issues with the concurrence of the Integrated Finance Wing of Ministry of Power vide their diary No. 56/Finance/2019 dated 08.03.2019.

Yours faithfully,

(S. Majumdar)
Under Secretary to the Govt. of India
Tel: 2335 6938

No.FU-18/2017-IPC
Government of India
Ministry of Power

Copy to:

1. Principal Pay & Accounts Officer, Ministry of Power, New Delhi.
2. Office of the Principal Director of Commercial Audit and Ex-officio Member Audit Board-III, CAG Building (Annexe), New Delhi-110124.
3. Principal Director of Audit, Economic & Service Ministries, AGCR Building, New Delhi
4. Chairperson, Central Electricity Authority, Sewa Bhawan, New Delhi.
5. Advisor (PAMD), NITI Aayog, Parliament Street, New Delhi.
6. Ministry of Finance (Deptt. of Expenditure) PF-II Division, North Block, New Delhi.
7. Secretary, Ministry of Statistics & Programme Implementation, Sardar Patel Bhawan, New Delhi.
8. Secretary, Ministry of Finance (Deptt. of Economic Affairs), North Block, New Delhi.

Copy also to:

1. PS to Minister of State for Power and New & Renewable Energy (I/C)
2. PPS to Secretary (Power)/ PPS to AS(SNS)/ PPS to JS&FA/ PS to JS(Thermal), Ministry of Power, New Delhi.
3. Finance Section/ Budget Section, Ministry of Power, New Delhi.

ABSTRACT COST ESTIMATE
(COST PROVISION FOR ENVIRONMENTAL MEASURES)

				Price Level (Jan, 2018)
PROJECT : Buxar TPP (2x 660MW)				Rs. In Crore
Sl. No.	Item Description	FC	IC	Sub - Total
1	Electrostatic Precipitator	0.00	206.37	206.37
2	Chimney	0.00	65.49	65.49
3	Cooling Towers incl. Civil Works	0.00	125.91	125.91
4	Ash Handling	0.00	255.27	255.27
5	Ash Dyke - First 9 years	0.00	90.49	90.49
6	Dust Extraction & Suppression System	0.00	5.09	5.09
7	DM plant waste treatment systems	0.00	5.09	5.09
8	Sewerage collection, treatment & disposal	0.00	4.07	4.07
9	Environmental lab. Equipment	0.00	5.59	5.59
10	Green Belt, Afforestation & Landscaping	0.00	20.85	20.85
11	SCR	0.00	501.48	501.48
12	FGD	0.00	572.68	572.68
	Total	0.00	1858.39	1858.39

Appendix-4

Details of major projects/activities executed at BTPP since 2014-15 to 31.03.2025 under SJVN Foundation-CSR schemes (all figures are in lakh)

A.	Vertical Name (eg: Healthcare and Sanitation)						
S. No	**Financial Year**	**Name of Activity**	**Commencement Year**	**Completion Year**	**Expenditure incurred in ₹Lakhs**	**Remarks (If any)**	**Beneficiaries**
1	2014-15	**Infrastructural Development & community asset creation**					
		Survey of Toilets constructed under Swachh Vidyalaya Abhiyan	2014	2015	1.70	**1.70**	794 toilets in schools of 6 districts of Bihar
2	2015-16	**1. Health & Hygiene**					
		1.a. Running of 02 Mobile Medical Units in & around project affected areas	2015	2015	40.29		7484 Patients
		2. Education and Skill Development	2015	2015			
		2.a. Providing scholarship under SJVn Silver Jubilee Merit Scholarship Programme	2015	2015	0.76		30 students
		3. Infrastructural Development & community asset creation					
		3.a. Construction of 794 toilets under swachh vidyalaya abhiyan in the state of Bihar	2015	2016	702.00		Schools in 6 districts of Bihar
					Total	**744.75**	
3	2016-17	**1. Health & Hygiene**					
		1.a. Running of 02 Mobile Medical Units in & around project affected areas	2016	2017	90.81		8422 Patients
		2. Education and Skill Development					
		2.a. Providing scholarship under SJVN Silver Jubilee Merit Scholarship Programme	2016	2016	3.00		41 Students
		2.b. Organised skill development programme for youths	2016	2016	4.50		40
		2.c. Training of local youths	2016	2016	1.05		
		3. Infrastructural Development & community asset creation					
		3.a.Renovation of Kamal Da Pokhara at Buxar	2016	2017	21.00		Buxar District
		3.b. Construction of Mela Shed at Haridas Baba Ki Kutiya near Bechanpurwa	2016	2017	6.00		
		4. Preservation & Promotion of cultural heritage, melas and sports					
		4.a. Financial aids for local melas	2016	2017	0.50		
		4.b. Promotion of sports in Project Area	2016	2016	0.12		
		5. Assistance to the victime of natural disasters/calamities	2016	2016	2.45		

		6. Miscellaneous and unforeseen expenditure	2016	2017	0.07		
					Total	**129.50**	
4	2017-18	**1. Health & Hygiene**					
		1.a. Running of 02 Mobile Medical Units in & around project affected areas	2017	2018	42.53		24917 Patients
		1.b. Organizing 10 Health & Sanitation awareness Drive campaign through Bhartiya Sankalp Path Foundation	2017	2018	2.25		Buxar District
		1.c. Organizing health camps in project area village by M/s HelpAge India	2017	2018	6.25		
		1.d. Women empowerment including support under existing women and child welfare schemes. (First Installment)	2017	2018	3.25		70 women
		2. Education and Skill Development					
		2.a. Reward scheme for topper students of Project areas/merit scholarship for wards of PAFs.	2017	2018	2.80		13
		2.b. Organised skill development programme for youths	2017	2018	8.65		200 youth
		2.c. Distribution scholarship under SJVN Silver Jubilee Merit Scholarship Scheme	2017	2018	10.32		43 Students
		3. Financial support for Educational Institutes					
		3.a. Providing Bench Desk of 275 nos. for 03 Govt. Schools of PAA	2017	2018	8.01		
		3.b. Providing Lab Equipment's to 03 Govt. Schools of PAA.	2017	2018	1.58		
		3.c. Organised Music workshop at Maharshi Chawan Mahavidyalaya Buxar	2017	2018	0.25		
		4. Infrastructural Development & community asset creation					
		4.a.Construction of Health Sub-Center at Banarpur village, Buxar	2017	2018	8.20		
		4.b. Construction of Toilet at Collectoriate, Buxar (03-Male, 03-Female)	2017	2018	5.79		
		4.c. Providing 02 nos. Badminton Floor Mat to Buxar District Badminton Association	2017	2018	5.80		
		4.d. Expenditure booked on distribution of Sound System, Supply of Utensil, Cycles (150 nos.) in Giridih constituency area	2017	2018	8.59		
		4.e. Providedwater cooler and purifier system for Collectoriate Office, Buxar	2017	2017	0.46		
		4.f. Provided water cooler for Indoor Badminton Court at Buxar	2017	2017	0.45		
		4.g. Distribution of items for physically challenged by ALIMCO	2017	2018	9.75		
		5. Assistance to the victime of natural disasters/calamities					
		5.a. Donation to Mukhyamantri Aapda Kosh	2017	2018	25.00		
		5.b. Distribution of 2000 pcs. food packets along with saari and dhoti.	2017	2017	19.33		
					Total	**169.26**	
5	2018-19	**1. Health & Hygiene**					
		1.a. Running of 02 Mobile Medical Units in & around project affected areas	2018	2019	52.46		26026 Patients
		1.b. donation of Medicines to PHC, Chausa for flood relief	2018	2018	1.06		

		1.c. Organized blood donation camp in project affected area	2018	2019	0.90		
		1.d. Organized health camps in project area villages	2018	2019	2.07		
		1.e. Financial support to welfare projects for differently abled and health institutes - MoU Signed on 06.12.2018 between SJVN Foundation and ALIMCO, Kanpur for organising 2 camps for diffrently abled at Buxar (Bihar)	2018	2019	16.25		
		1.f. Eradicating hunger, poverty and awareness campaign on health and sanitation (SBM) - organized various activities under swachhta pakhwara	2018	2018	1.88		
		1.1. Sanitation					
		1.1.a. Construction of Toilets for Divyangjan in M.C. College and Primary Health Centre, Chausa is under process, work awarded on 04/07/2018, estimated work completion time is 2.5 month	2018	2019	3.30		
		1.1.b. Maintenance of toilets constructed under Swachh Vidyalaya Abhiyan (SVA)	2018	2019	39.60		
		1.1.c. Sanitation activities such as - on distribution of Sanitary Napkin in Govt. girls high school. - Honorarium to guest faculty on the occasion of Inter Biodiversity Day. - Prize money (essay/slogan writing competition in Govt. schools) - Snacks for participants during whole Swachhta Pakhawada. - for running of Monadi Vehicle (25.09.18-01.10.18) - for cleanliness items (saops, liquid handwash, mask, broom etc)	2018	2019	0.96		
		2. Education and Skill Development					
		2.a. Nomination of 25 nos. Project affected youth in Govt ITIs and financial support for residential coaching to economically poor but talented students	2018	2019	6.35		25
		2.b. Reward scheme for topper students of project areas/merit scholarship for ward of PAFs - 20 students under SJVN Topper students merit scholarship scheme	2018	2019	1.35		41 Students
		2.c Skilled develpoment program for youth by M/s NIESBD, Dehradun					100 youth
		3. Financial support for Educational Institutes					
		3.a. Providing various items to Govt. Schools of PAA Plastic Chair Dari Steel Almirah Table	2018	2019	2.62		
		4. Empowerment of vulnerable section of Society					
		4.a. Maternal health including support under existing women and child welfare schemes - Rs. 3,50,000/- Case processed for 70 Women applicants under SJVN Silver Jubilee Women and Child care scheme. Cheque will be distributed after receiving by CHQ, Shimla. Rs. 41,955/- for Gift pack of FY 2017-18 to M/s Helpage India. (Second Installment)	2018	2019	3.92		
		5. Preservation and promotion of Culture, heritage and iconic places					

		5.a.Renovation and maintenance of iconic places of cultural and heritage importance (SBM)	2018	2019	11.52		
		5.b. Promotion of Culture - Support to Sri Ganga Aarti Sewa Trust for preservation and promotion of culture, heritage and for conducting cleanliness drive at Ganga Ghat on the occasion of Ganga Dushahara (24.05.2018).	2018	2018	0.25		
		6. Infrastructural Development & community asset creation					
		6.a. - installation of dustbins at public places at Buxar. - plantation drive at public places at Buxar. - inauguration ceremony of Health Sub Center, Banarpur - installation of dustbins at public places at Chausa	2018	2019	3.15		
		6.b. Construction of GS sheet shed and fencing for the conservation of cultural and historical place at Bechanpurva village, block chausa, district Buxar.	2018	2019	3.46		
		6.c. supply of furniture items to Health Sub Centre, Banarpur	2018	2018	0.80		
		6.d. Procured and distributed 10 nos. kent water ATM. In project affected areas	2018	2019	27.00		
		6.e. Provided Sewing Machine to Giridih Constitutional area	2018	2018	1.60		
		6.f. Assistance to District Administration by providing RO water Purifier and seating arrangments for public	2018	2019	1.55		
					Total	**182.05**	
6	2019-20	**1. Health & Hygiene**					
		1.a. Running of 02 Mobile Medical Units in & around project affected areas	2019	2020	57.58		27,189 Patients
		1.b. Distribution of various items to the public belonging to Project affected areas such as hearing aid, handicapped bicycle, spectacles etc. in collaboration with ALIMCO	2019	2019	8.55		
		1.c. Organized 90 Health Awareness camps in the project affected areas	2019	2020	35.20		
		1.1. Sanitation					
		1.1.a. Construction of toilets	2019	2020	0.33		
		1.1.b. Organizing of activities related to Swachhta Pakhwara	2019	2020	1.80		
		2. Education and Skill Development					
		2.a. Nominated of 25 Project affected youth in Govt ITIs @ appxRs. 0.50 lakh per head	2019	2021	12.22		
		2.b. Encouraging topper students of project areas/ merit scholarship for wards of PAFs taking up higher studies	2019	2020	1.92		22 Student
		2.c. skill development through empanelled agency for project affected people	2019	2020	12.00		240
		2.d. Training to local farmers belonging to Project affected areas at KVK, Buxar	2019	2020			50 farmers

		3. Promoting gender equality, empowering women, setting up homes and hostels for women and orphans; setting up old age homes, day care centers and such other facilities for senior citizens and measures for reducing inequalities faced by socially and economically backward groups					
		3.a. Women empowerment, Maternal health including support under existing women and child welfare schemes - Natal, Pre-Natal scheme for pregnant females belonging to Project affected area- Awareness program conducted	2019	2020	3.45		
		4. Infrastructural Development & community asset creation					
		4.a.Supply & Installation of Indoor Badminton Court at Buxar, Bihar	2019	2020	12.50		
		4.b. Construction of community assets in project area & other areas.	2019	2020	10.96		
		5. Miscellaneous and Unforeseen CSR activities	2019	2020	9.08		
					Total	**165.59**	
6	2020-21	**1. Health & Hygiene**					
		1.a. Running of 02 Mobile Medical Units in & around project affected areas	2020	2021	55.32		24,331 Patients
		1.b. Organized 200 Ayurvedic Health awareness camps @ appx Rs. 0.35-Lakh per camp	2020	2021	10.32		
		1.c. Financial support to welfare projects for health institutes, other healthcare / hygiene and sanitation projects. Expenditure incurred are as follows: a. Registration of 06 nos. of ambulances (9.5 Lakhs) b. Payment towards sanitary napkin vending machine and sanitary napkin incinerator (training part only) = (1.18 Lakhs) c. Total = 9.50+1.18 = 10.68 Lakhs (Note: 1. An amount of Rs.21.70 Lakhs has been added to earlier allocated budget of Rs.93.00 Lakhs for purchase of water ATM during Panchkoshi Mela) The utilization of budget is anticipatory subjected to inherent conditions. 2. An advace of Rs.11,68,294/- has been adjusted as per taxable invoice raised by M/s HLL regarding purchase of sanitary, napkin vending machine and incinerator.	2020	2021	110.05		
		1.c. Organizing Health Camps in project affected area by M/s HelpAge India	2020	2021	0.39		
		1.d. Conversion of 06 Ambulances in to MMUs through M/s Dhanush Foundation as per instructions from O/s MoS (H&FW) and its R/M for 01 year.	2020	2021	47.50		

		1.e. - Making arrangements during Panchkoshi yatra. - For community works as directed by SDPO Office. - R&M works at M. P. High School Buxar regarding ECHO problem as per request. - Construction of Didi Ki Rasoi (Canteen) in Collectoriate Campus, Buxar	2020	2021	17.66		
		1.1. Sanitation					
		1.1.a. Activities related to implementation of Swachhta Action Plan, Swachhta-Hi-Sewa etc.	2020	2021	0.47		
		2. Education and Skill Development					
		2.a. Nominated of 25 Project affected youth in Govt ITIs @ appx. Rs. 0.50 lakh per head	2020	2021	12.28		
		3. Infrastructural Development & community asset creation					
		3.a. Construction of community assets in and around project area and other areas	2020	2021	13.61		
		4. Disaster management including relief, rehabiliation and reconstruction activities					
		4.a. a. Assistance to the victims of natural disasters/ calamities/ covid-19 related projects/ contributions towards State Disaster Relief Funds etc. - Expenditure incurred during COVID19 crysis wherein masks, sanitisers, beds, medicine etc were mada availed to the local public and hospitals	2020	2021	120.00		
		5. Miscellaneous and administrative expenditure	2020	2021	3.00		
							22 Student
					Total	**390.60**	
7	2021-22	**1. Health & Hygiene**					
		1.a. Running of 02 Mobile Medical Units in & around project affected areas	2021	2022	52.19		24,285 Patients
		1.b. R&M of 06 MMUs for Dhanush Foundation for "Chikitsha Chikitshak aapke Dwar" Program	2021	2022	50.00		
		1.c. Organised Ayurvedic Health Awareness Camps in project affceted area through M/s Bhartiya Dharohar	2021	2022	18.86		31,864 Patients
		1.1. Sanitation					
		1.1.a. Maintenance of toilets constructed under swachh vidyalaya abhiyan-funds released to BEPC, Patna	2021	2022	17.80		
		1.1.b. Organizing of activities related to Swachhta Pakhwara - beautification and cleanliness of Chatt Ghat at Bhojpur district	2021	2022	16.36		
		2. Education and Skill Development					
		2.a. Nominated of 25 Project affected youth in Govt ITIs @ appxRs. 0.50 lakh per head - Enrolled in ITI for payment of stipend (01 Apr to 30 June 2021	2021	2021	1.32		

		2.b. Financial support to educational institutes- Desk,benches given to schools of project affected area	2021	2021	4.99		
		3.Sustainable Development					
		3.a. Installation of solar street lights in project affceted areas	2021	2021	40.00		
		4. Infrastructural Development & community asset creation					
		4.a.Different CSR Works for District Administration, Buxar "Construction of Toilets and Barrack in SDPO Office"	2021	2022	2.68		
		4.b. Repair and maintenance works as per instructions from District Administration, Buxar	2021	2022	10.97		
		4.c. water proofing of existing roof and providing & fixing window chhajja for kendriya Vidalaya Buxar	2021	2022	6.70		
		4.d. Beautification of Mahatma Gandhi Statue, Kaml Da Pokhara, Buxar	2021	2022	1.39		
		4.e. Beautification of Victory Memorial located at Kathkali, Ahirauli, Buxar	2021	2022	4.52		
		4.f. Installation of high Mast lights at Police Line, Buxar	2021	2022	9.25		
		5. Disaster management including relief, rehabiliation and reconstruction activities			9.08		
		5.a. Assistance to the victims of natural disasters/calamities/contributions towards State Disaster Relief funds etc. Food packets provided during flood relief	2021	2021	17.66		
		5.b. b) Measures for COVID-19 combat like Cold Chain Equipment, COVID-19 related projects/ and other support to health institution for COVID-19 measures	2021	2022	21.30		
		6. Miscellaneous and administrative expenditure					
		- Billiards table procured and installed at circuit house, Buxar - health camp conducted on 16 feb 2022 - organised blood donation camp - procurement of Furniture items for Sadar Hospital, Buxar - display boards supply an installation where CSR works has been carried out	2021	2022	8.25		
		CSR Works as per direction of District Administration, Buxar	2021	2022	2.63		
					Total	**295.95**	
8	2022-23	**1. Health & Hygiene**					
		1.a. Running of 02 Mobile Medical Units in & around project affected areas	2022	2023	51.37		34,160 Patients
		1.d. Running and maintenance of 06 MMUs by M/s Dhanush Foundation as per instructions from O/s MoS (H&FW)for 06 months	2022	2022	50.00		31,864 Patients
		1.c. Organizing Health Camps in project affected area by M/s Bhartiya Dharohar	2022	2023	28.56		
		1.d. Finanical support to Sadar Hospital, Buxar for installation of Lift and 02 maternity beds	2022	2023	21.30		

		1.e. Maternal Health including support under existing women and child welfare schemes - Natal and Pre-Natal scheme	2022	2023	3.56		23 Mothers
		1.1. Sanitation					
		1.1.a. Release of payment for additional 90 toilets constructed under Swachh Vidyalaya Abhiyan to M.s Bihar Education Project Council			26.85		
		1.1.b. Activities related to implementation of Swachhta Action Plan, Swachhta-Hi-Sewa etc.	2022	2022	1.69		
		1.1.c. Installation of Sanitary Napkin Manufacturing Unit at Chasua.	2023	2023	30.00		
		2. Education and Skill Development					
		2.1. Training of 50 Farmers at KVK, Buxar- (conducted in the month of Oct 2023)	2023	2023	1.96		50 Farmer
		3. Training to promote rural sports, national recognised sports, paralymic sports and olympic sports					
		3.1. Distribution of sports equipment to to institues for promotion of rural sports , national recognised sports, paralymic sports and olympic sports	2022	2023	10.00		
		4. Rural development projects-Infrastructural development and Communities Assets Creation					
		4.a. Construction of community assets in and around project area and other areas - Renovation of Mokhtrakhana Building at Buxar - Renovation of Badminton court at buxar - Installation of RO water purifier in Collectoriate, Buxar - Estimated for Bricks kharaunja Path way work for primary school Gurauna Chausa	2022	2022	14.78		
		13. Miscellaneous and administrative expenditure	2022	2023	2.00		
					Total	242.07	
9	**2023-24**	**1.1 Health & Hygiene**					
		1.a. Running of 02 Mobile Medical Units in & around project affected areas	2023	2024	80.00		24679 Patients
		1.b.Start of new MMUs- Chikitsa Chikistak Aapke Dwar	2023	2024	50.00		
		c. Financial support for health projects such as setting up of health institute, healthcare/ hygiene and sanitation projects etc.	2023	2024	30.89		
		d. Maternal health including support under exisiting women and child welfare schemes.	2023	2024	9.65		92 Mothers
		1.2. Sanitation					
		1.1.b. Activities related to implementation of Swachhta Action Plan, Swachhta-Hi-Sewa etc.	2023	2024	3.52		
		2. Education and Skill Development					
		2.1. Training of 50 Farmers at KVK, Buxar- (conducted in the month of Oct 2023)	2023	2023	0.47		

		4.a. Support for construction of Gau Sadans in and around project areas as per the scheme, other welfare measures for animals etc.	2023	2023	10.00		
		4.b.Installation of solar lights, High Mast Lights etc.	2023	2023	24.31		
		4. Rural development projects-Infrastructural development and Communities Assets Creation					
		4.a. Distribution of 50 coolers in District Child Protection centre, Buxar	2023	2023	1.29		
						210.13	
10	**2024-25**	**1.1 Health & Hygiene**					
	(Status as on 31.03.2025)	i) Already running Mobile Medical Unit (MMU) in project area and CHQ through Helpage India & other Agencies.	2024	2025	53.45		32108 Patients
		d. Maternal health including support under exisiting women and child welfare schemes.	2024	2025	2.22		92 Mothers
		1.2. Sanitation					
		1.1.b. Activities related to implementation of Swachhta Action Plan, Swachhta-Hi-Sewa etc.	2024	2025	6.19		
		2. Education and Skill Development					
		c. Skilled development program/ start-upsin association with CIDC, HIMCON and other agencies etc	2024	2025	0.81		15 Candidates
		4.b.Installation of solar lights, High Mast Lights etc.	2024	2025	16.5		
		10. Rural development projects-Infrastructural development and Communities Assets Creation					
		a. Construction of community assets in and around project area, CHQ and other project areas	2024	2025	4.79		
		13. Miscellaneous and administrative expenditure					
		a. Saplings provided to District Administration Buxar	2024	2025	0.5		
		TOTAL				**84.46**	
Total expenditure under SJVN Foundation - CSR scheme at STPL from 2014-15 onwards to 2024-25 (in Lakhs)							**2616.06**

Appendix-5

Govt of Bihar
Rural Works Department

Letter No.- BRRDA (HQ) PMGSY-581/2015 65 /Patna, dated- 07/01/16

From,

Kamlesh Choudhary
Engineer in Chief

To,

Shri Praveen Gupta
GM/HoP, BTPP
SJVN Thermal Pvt. Ltd.

Sub: Long term requirement of Fly Ash from Thermal Power Plant for Its utilization in construction of Rural Roads in the State of Bihar

Sir,

As you may be aware, Rural Works Department is focusing on construction and maintenance of the rural roads falling mainly in the category of others District Roads (ODR) and Village Roads in Bihar state. In our initiative, towards adoption of environment friendly technology for construction of the rural roads, we intend to utilize fly ash from thermal power plant in construction of rural roads in the state of Bihar.

We understand that SJVN Thermal Pvt. Ltd. is looking to supply fly ash from their coal based Buxar Thermal Power Project, District Buxar.

Though our Fly Ash requirement varies from time to time depending upon quantum of works and at present we are utilising Fly Ash as new Technology. We may require up to 0.48 MMT per annum of Fly Ash for its utilization in construction activity of rural roads as stated above.

It is for your kindly information

Thanking You.

Yours faithfully

07/01/16

(Kamlesh Choudhary)
Engineer in Chief

Office of The Engineer in Chief cum Additional Commissioner cum Special Secretary, Road Construction Department, Bihar, Patna.

Letter no- Sec.-11/Vividh-03-41/2015 – 192(E) Patna, Date- 2.11.16

From,

Lakshmi Narayan Das,
Engineer in Chief-cum-
Additional Commissioner-cum-
Special Secretary.

To,

Sri Parveen Gupta,
GM/Hop, BTPP,
SJVN Thermal Pvt. Ltd.,
Talpatra Lane, Budh Marg, Patna-800001

Sub:- **Long term supply of Fly Ash from Coal Based Supercritical Buxar Thermal Power Project for its utilisation in construction of Road and other related works.**

Ref:- Your letter no.-392 dated-06.11.2015

Sir,

As directed it is stated that Road Construction Department is focusing on construction and maintenance of roads in Bihar. In our initiative towards adopting of environment friendly technology for construction of road, we intend to utilize Fly Ash from Thermal Power Plant in construction of roads in the state of Bihar.

We understand that SJVN Thermal Power Pvt. Ltd. is looking to supply Fly Ash from their coal based Buxar Thermal Power Project, District Buxar.

Though our Fly Ash requirement varies from time to time depending upon quantum of work, we may require 0.24 MMTPA out of 0.48 MMTPA free of cost as stated in your letter under reference from Buxar Thermal Power Plant.

Hence it is requested to kindly allocate 0.24 MMTPA of Fly Ash from your coal based Buxar Thermal Power Project, District Buxar.

Yours Faithfully,

(Lakshmi Narayan Das)

M/s R.K. MISHRA ENTERPRISES

Annexure - I

Expression of interest (EOI) for Uplifting of Fly Ash from 2x660 MW Buxar, TPP

1.	Name of Interested Party	:	M/S R.K.Mishra Enterprises
2.	Address	:	Patel Nagar, Ward No-17, Purabtola, Kahalgaon, Bhagalpur (Bihar).
3.	Nature Of Business	:	• Trader • Transporter • Bricks, Block, Tiles or other ash based product (to be specified) Manufacturer.
4.	Type of products being dealt	:	Cements, Asbestors, Bricks, Block, Tiles
5.	Classification of the Company	:	Others (if others, please specify) Proprietorship Firm.
6.	Contact details	:	Name - Ravi Kant Mishra Designation- Proprietor Mob.No- 09934702851 Email ID: ravikant_mishra14@yahoo.com
7.	Proposed end use of fly ash	:	• Bricks • Exports • Trading Others (If others, please specify) Trading
8.	Years of experience in the business	:	8 (Eight) years
9.	Annual Turn over of the business	:	01 (One Crore)
10.	Location & Agency's other details	:	a) Distance of Ash utilization unit from Buxar TPP - 200 K.M. b) Address: Patel Nagar, Ward No-17, Purabtola, Kahalgaon, Bhagalpur (Bihar). c) Details of license/registration (if available) CST/VAT CST No- 10523309132 VAT No- 10523309035
11.	Total Requirement of Fly ash	:	5,00,000/-MT/Annum

Regd. Office : Ogri, P.O.-Maheshamunda, P.S.-Kahalgaon, Dist.-Bhagalpur, Pin-813203 (Bihar),
Branch Office : Patel Nagar, Ward No.-17, Purab Tola, Kahalgaon, Mob.: 9934702851, 9931659452
E-mail : ravikant_mishra14@yahoo.com

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M/s R.K. MISHRA ENTERPRISES

12. Quoted Price and Quantity of Fly Ash

Sl.No.	Quantity required (MT/Annum)		Price Offered by party (Rs/MT) at the Fly Ash Silo*		Period of requirement (in no. of years)
	In Figures	In Words	In Figures	In Words	
	5,00,000 MT Per Annum	Five Lacs MT/ Annum	10 Rs/MT	Ten Rupees Only/ MT	20 Years

* Excluding taxes, Duties & Freight.

Note :- 1. Those Agencies interested in uplifting of fly ash free of cost, may specify NIL in the column for price offered.

2. This announcement is not an offer for commitment for fly ash tie-up.

13. Whether willing to enter in to MOU : Yes.

We understand that fly ash quantity to be supplied would be as available basis from the designated delivery point (on ex. works basis) and we have to arrange transportation at own cost in bulkers / closed trucks. We are liable and responsible for payment towards any taxes, levies, octroi etc. applicable / enforced by state / Central Government from time to time during the tenure of the contract.

Date : 15th October 2015
Place : Kahalgaon

Signature

Name of person - Ravi Kant Mishra
Designation - Proprietor
Name Of Company - M/S R K Mishra Enterprises
Address :- Patel Nagar, Ward No-17 Purabtola, Kahalgaon, Bhagalpur (Bihar), Pin- 813203

or, M/s R. K. Mishra Enterprises
Proprietor

Regd. Office : Ogri, P.O.-Maheshamunda, P.S.-Kahalgaon, Dist.-Bhagalpur, Pin-813203 (Bihar),
Branch Office : Patel Nagar, Ward No.-17, Purab Tola, Kahalgaon, Mob.: 9934702851, 9931659452
E-mail : ravikant_mishra14@yahoo.com

LAFARGE

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Sr. Manager (Contract – BD & MS)
SJVN Limited,
707-709, 7th Floor, DLF South Court,
District Centre, Saket,
New Delhi – 110017

Date 24th August 2015

Ref: Invitation for Expression of Interest (EOI) SJVN/BD&MS/BTPP/EOI-Fly Ash dated 11th July 2015

Dear Sir,

We are pleased to submit the EOI for lifting Fly Ash from the proposed Thermal Power Station at Buxar.

Please find attached the Annexure I with the relevant details.

Thank you.

Yours faithfully,

Rakesh Rana
Asst. Vice President – Business Development & Strategy

LAFARGE INDIA PVT. LTD.
(CIN - U26940MH1999PTC118229)
Registered Office:
Equinox Business Park, Tower - 3, East wing, 4th Floor,
Off. Bandra - Kurla Complex, LBS Road, Kurla - West, Mumbai - 400070
Tel: (91-22) 6630 6511 Fax: (91-22) 6630 6510 www.lafarge.com

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LAFARGE

ANNEXURE I

(On the Company's Letterhead duly signed by Authorized with Company's Stamp)

Expression of Interest (EOI) for uplifting of Fly Ash from 2 x660 MW Buxar TPP

1. Name of interested party	:	LAFARGE INDIA PVT LTD
2. Address	:	EQUINOX BUSINESS PARK, TOWER-3, EASTWING, 4th FLOOR, OFF BANDRA KURLA COMPLEX, LBS MARG, KURLA-WEST MUM. 400070
3. Nature of business	:	✓ Cement Manufacturer ✓ Ready Mix Concrete (RMC) Manufacturer • Trader • Transporter ✓ Bricks, Block, Tiles or other ash based product Manufacturer • Others (if others, please specify) .....
4. Type of products being dealt	:	CEMENT, RMX, AAC BLOCKS, HCB
5. Classification of the Company	:	Public Limited ✓ Private Limited Partnership Limited Others (if others, Please specify) .....
6. Contact details	:	Name: RAKESH RATH Designation: ASST. VICE PRESIDENT Tel No. (With STD code) (022) 61726554 Fax No.: (022) 66306510 Mobile No. 9920040726 Email ID: rakesh.rath@lafarge.com
7. Proposed end use of fly ash	:	Cement ✓ RMC Asbestos Bricks / AAC BLOCKS ✓ Exports Others (if others, please specify) .....
8. Years of experience in the business	:	15 years
9. Annual Turn Over of the business	:	Approx Rs 5200 Crores
10. Location & agency's other details	:	a) Distance of Ash utilization unit from Buxar TPP .....Km TO BE DECIDED b) Address..... c) Details of license/registration (if available): .....
11. Total Requirement of fly ash	:	0.80 MT / Annum

12. Quoted Price and Quantity of Fly Ash

Sl. No.	Quantity required (MT / Annum)		Price Offered by party (Rs/MT) at the Fly Ash Silo*		Period of requirement (in no. of years)
	In Figures	In Words	In Figures(₹)	In Words(₹)	
1. 2.	0.70 M 0.10	Eight Lac Tons	NIL		30 YEARS +

*Excluding taxes, Duties & Freight.

Note:- Those Agencies interested in uplifting of fly ash free of cost, may specify NIL in the column for Price offered.

* 1. Cement — 0.70 MT

2. AAC BLOCK — 0.10 MT.

TOTAL 0.80 MT.

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LAFARGE

13. Whether willing to enter into MOU: Yes....YES.... NO..........

We understand that fly ash quantity to be supplied would be as available basis from the designated delivery point and we have to arrange transportation at own cost in bulkers/closed trucks. We are liable and responsible for payment towards any taxes, levies, octroi etc. applicable/ enforced by state/ Central Government from time to time during the tenure of the contract.

Date: 24th AUG. 2015
Place: MUMBAI

Signature

Name of the person RAKESH RAM

Designation ASST. VICE PRESIDENT

Company seal

Lafarge India Pvt. Ltd. Mumbai 400070

Name of company LAFARGE INDIA PVT. LTD.

Address
BRUINSON BUSINESS PARK,
EAST WING, TOWER-3
4th FLOOR, OFF. BANDRA
KURLA COMPLEX, LBS
MARG, KURLA - WEST,
MUMBAI - 400070

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Dalmia
Bharat Cement

newthink! cement! sugar! refractories! power!

23rd September 2015

EXPRESSION OF INTEREST

To,

Sr. Manager (Contract)
SJVN Limited
Business Development & Management Services
707-709, DLF South Court
District Centre, Saket
New Delhi - 110017

Dear Sir,

Kindly find below our expression of interest for sourcing Fly Ash from SJVN Thermal Pvt Ltd.

1. Name of Party	Dalmia Cement (Bharat) Ltd
2. Address	Hansalaya, 11 & 12th Floor 15, Barakhamba Road, New Delhi 110001
3. Nature of Business	Cement Manufacturer
4. Type of products being dealt	Cement
5. Classification of the Company	Public Limited
6. Contact Details	Vijay Patil Executive Director- Strategy & Business Excellence Phone : 011-23465200 Fax : 011-23313303 Mobile : 9818866184 Email : patil1.vijay@dalmiacement.com
7. Proposed end use of fly ash	Cement Manufacture Fly ash based products (bricks, blocks)
8. Years of experience in the business	More than 20 years
9. Annual Turnover of the business	Rs 4000 Crore
10. Location & agency's other details	Distance of ash utilisation unit from Buxar TPP : Approx 25 km
11. Total requirement of fly ash	7 Lakh metric ton per annum

28/10/15

Dalmia Cement (Bharat) Limited
11th & 12th Floors, Hansalaya Building
15, Barakhamba Road
New Delhi-110 001 INDIA

t 91 11 23465100 / 91 11 23313303
e info@dalmiabharat.com
w www.dalmiabharat.com
Registered Office : Dalmiapuram 621 651 (Tamil Nadu)

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12. Quoted Price and Quantity of Fly Ash :

Sl No	Quantity required (MT/Annum)		Price Offered by Party (Rs/MT) at the Fly Ash Silo		Period of requirement (years)
	In Figures	In Words	In Figures	In Words	
1	700,000	Seven Lakhs	NIL	NIL	25

13. Whether willing to enter into MOU : YES

We understand that fly ash quantity to be supplied would be as available basis from the designated delivery point (on ex-works basis) and we have to arrange transportation at own cost in bulkers / closed trucks. We are liable and responsible for payment towards any taxes, levies, octroi etc. applicable / enforced by state/Central Government from time to time during the tenure of the contract.

Signature :

Name : VIJAY PATIL

Designation : Executive Director – Strategy & Business Excellence

Name of Company : Dalmia Cement (Bharat) Ltd

Address : Hansalaya, 11 & 12th Floor
15, Barakhamba Road, New Delhi - 110001

Date : 23rd September, 2015

Place : New Delhi

Dalmia Cement (Bharat) Limited

(174)

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Global Infra Export

ANNEXURE I

[On the Company's Letterhead dully signed by Authorized with Company's Stamp]

Ref. No.:

Expression of Interest (EoI) for uplifting of Fly Ash from 2 x660 MW Buxar TPP Date:

1. Name of interested party	:	Global Infra Export
2. Address	:	Pitter Nagar, ward no. 17, Puraniola Kahalgaon, Bhagalpur, Bihar
3. Nature of business	:	• Cement Manufacturer • Ready Mix Concrete (RMC) Manufacturer ✓ Trader ✓ Transporter ✓ Bricks, Block, Tiles or other ash based product (to be specified) Manufacturer • Others (if others, please specify)
4. Type of products being dealt	:	Cement, Asbestos, Brick, Block, Tiles
5. Classification of the Company	:	Public Limited Private Limited Partnership Limited – Others (if others, Please specify) Partnership firm
6. Contact details	:	Name: SHASHI KANT MISHRA Designation: Partner ship Tel No. (With STD code) Fax No.: Mobile No. 9931653459, 9334702851 Email ID: Shashikant 807 @ gmail.com
7. Proposed end use of fly ash	:	Cement RMC Asbestos Bricks ✓ Exports ✓ Others (if others, please specify) Trading
8. Years of experience in the business	:	03 (Three) years
9. Annual Turn Over of the business	:	Fifty (50) Lakh
10. Location & agency's other details	:	a) Distance of Ash utilization unit from Buxar TPP 200 Km b) Address D.O. c) Details of license/registration (if available) N/A
11. Total Requirement of fly ash	:	Five (05) Lakh MT / Annum

12. Quoted Price and Quantity of Fly Ash

Sl. No.	Quantity required (MT / Annum)		Price Offered by party (Rs/MT) at the Fly Ash Silo*		Period of requirement (in no. of years)
	In Figures	In Words	In Figures(₹)	In Words(₹)	
	500000 MT/Annum	Five Lakh	05 RS/MT	Five Rupees per MT	20 years

*Excluding taxes, Duties & Freight.

Note:- 1. Those Agencies interested in uplifting of fly ash free of cost, may specify NIL in the column for Price offered.

2. This announcement is not an offer for commitment for fly ash tie-up

M/S GLOBAL INFRA EXPORT

PARTNER

CP-25

Global Infra Export

13. Whether willing to enter into MOU: Yes...Yes ' NO.....

Ref No:.

We understand that fly ash quantity to be supplied would be as available basis from the designated delivery point (ex ex. works basis) and we have to arrange transportation at own cost in bulkers/closed trucks. We are liable and responsible for payment towards any taxes, duties, octroi etc. applicable/ enforced by state/ Central Government from time to time during the tenure of the contract.

Date: 20.10.15
Place: KAHALGAON

Signature
Name of the person: Shashi kant Mishra
Designation: Partner Ship
Name of company: GLOBAL INFRA EXPORT.
Address: patel Nagar, Ward No. 17, Kahalgaon, Bhagalpur, Bihar, 813203

Company seal: M/S GLOBAL INFRA EXPORT
PARTNER

ENVIRONMENTAL CLEARANCE

PARIVESH (Pro-Active and Responsive Facilitation by Interactive, and Virtuous Environmental Single-Window Hub)

Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment Authority(SEIAA), Bihar)

To,

The HEAD INFRASTRUCTURE WORK AND TOWNSHIP DEPARTMENT
MINI SMART TOWNSHIP OF BTPP BUXAR
2ND FLOOR NAV DURGA COMPLEX, COLLECTRIATE ROAD, AMBEDKAR CHOWK, BUXAR -802103

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/BR/MIS/251608/2022 dated 14 Jan 2022. The particulars of the environmental clearance granted to the project are as below.

1.	**EC Identification No.**	**EC22B038BR124616**
2.	**File No.**	SIA/8(a)/1854/2022
3.	**Project Type**	New
4.	**Category**	B2
5.	**Project/Activity including Schedule No.**	8(a) Building and Construction projects
6.	**Name of Project**	Mini smart Township of BTPP Buxar
7.	**Name of Company/Organization**	MINI SMART TOWNSHIP OF BTPP BUXAR
8.	**Location of Project**	Bihar
9.	**TOR Date**	N/A

The project details along with terms and conditions are appended herewith from page no 2 onwards.

(e-signed)
Mr. Sudhir Kumar
Member Secretary
SEIAA - (Bihar)

Date: 06/05/2022

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH.Please quote identification number in all future correspondence.

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STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY,BIHAR

F. No.:- SIA/8(a)/1854/2022

Sub: **Proposed Building Project at Mauza:- Khormpur, Tehsil:- Chausa, District:- Buxar, State:- Bihar; by M/s Mini Smart Township of BTPP Buxar [Total Plot Area:- 2,00,400 m^2, Total Built-up Area:- 69,895.90 m^2] - Environmental Clearance regarding.**

Reference:-

1. MoEF&CC Proposal No. - **SIA/BR/MIS/251608/2022** & SEIAA File No.:- **SIA/8(a)/1854/2022**.
2. Your application dated 17-01-2022 (hard copy submission).
3. Minutes of the SEAC meeting held on 29-01-2022 and 11-04-2022.
4. Minutes of the SEIAA meeting held on 02-05-2022.

Sir,

This has reference to your online application for the above proposal of M/s Mini Smart Township of BTPP Buxar for Building and Construction Project at Mauza:- Khormpur, Tehsil:-Chausa, District:-Buxar, State:- Bihar. The details of the projects are as follows:-

Sl. No.	Item	Details
1.	Name of the project	Proposed Building Project at Mauza:- Khormpur, Tehsil:- Chausa, District:- Buxar, State:- Bihar; by M/s Mini Smart Township of BTPP Buxar
2.	S. No. in the Schedule	8(a)
3.	Type of Project	8(a) {Building & Construction Project}
4.	Total Plot Area	2,00,400 m^2
5.	Total Built-up Area	69,895.90 m^2
6.	Total Green Belt Area	47,618.48 m^2 (24% of the total plant area)
7.	Proposed Parking Area of the project	18,327.76 m^2
8.	Location of the Project	Thana No.- 42, Khata No.- 40, 61, 87, 68, 75, 41, 88, 75, 87, 1, 25, 86, 9, 52, 19, 70, 47, 4, 53, 33, 36, 46, 5, 10, 11, 65, 71, 74, 27, 37, 18, 63, 84, 67, 56, 43 Plot No. 160-207, 209-222, 224-257, 283-287, 294, 296-306, 310, 313, 314, 335, 336, 337, 346, 352, 353, 354,

		355 169/803, 171/796, 171/804 Mauza:- Khormpur, Tehsil:- Chausa, District:- Buxar, State:- Bihar.			
9.	Geo-Coordinates of the project	25° 27' 53.41" N 85° 52' 12.36" E 25° 27' 49.93" N 85° 52' 12.68" E			
10.	Maximum height of the building	25.45 meters			
11.	Stories	**Sl. No.**	**Residential**	**Building Code**	**Floor**
		1.	HOP Residence	RES - HOP	G + 01
		2.	Type - D Accommodation	RES - D	G + 02
		3.	Type - D Accommodation	RES - D	G + 01
		4.	Type - C Accommodation	RES - C	S + 07
		5.	Type - B Accommodation	RES - B	S + 07
		6.	Field Hostel - Family Complex	RES - FHF	G + 02
		7.	Field Hostel - Bachelor Complex	RES - FHB	S + 06
			Non Residential		
		1.	Field Hostel cum Training Center	NRES - TCW	G + 03
		2.	Primary School and Kindergarten	NRES - TCW	G + 01
		3.	Hospital	NRES - H	G + 02
		4.	Shopping complex	NRES - SHOP	G + 01
		5.	Executive club cum Ladies club	NRES - EC	G + 02
		6.	Sub-Ordinate Club	NRES - SC	G + 01
		7.	Guest House	RES - GH	G + 03
		8.	Auditorium	NRES - AUDIT	G + 01
		9.	Sports Complex	NRES - SC	G
		10.	CISF Office	RES - CISF	G + 01
		11.	CISF Armory	NRES - CISF	G
		12.	CISF Complex	NRES - CISF	G + 07
		13.	CISF Barracks	NRES - AU	G + 01
12.	Total Water Requirement	360 KLD			
13.	Waste Water Generated	230 KLD			
14.	Solid Waste Generated	912 Kg/day			
15.	Biodegradable Waste	547 Kg/day			
16.	Non-Biodegradable Waste	365 Kg/day			
17.	Bio- Medical waste	20 Kg/day			
18.	STP Capacity	270 KLD			
19.	Source of Water	Groundwater through own Borewells			
20.	Power Requirement	1,872 KVA			
21.	Source of Power	Bihar Electricity Board.			
22.	Power Backup	2 DG set of 500 KVA of DG set will be installed.			
23.	Total Cost of Expansion Project site	Total Project Cost - **₹ 1,65,93,00,000/-** Environment Management Plan Cost **During Construction Phase** Capital Cost - - **₹ 40,00,000/-**			

		Recurring Cost - ₹ **15,00,000/-** **During Operation Phase** Capital Cost - ₹ **1,44,00,000/-** Recurring Cost - ₹ **26,00,000/-**

PREMISES OF THE ENVIRONMENTAL CLEARANCE

This Environmental Clearance is being issued on the premises which have been substantiated / described in detail in the format of application along with enclosed affidavits / certificates / undertakings etc. furnished therewith by the project proponent:-

(i) Information provided, descriptions mentioned are complete, true and actual and no relevant fact has been concealed to obtain Environmental Clearance deceitfully by the project proponent.

(ii) Environmental Clearance shall be liable to be revoked if furnished information, provided description / Certificates / Affidavits / Undertaking etc. are found false/ concocted at any stage of its validity.

(iii) Project Proponent shall intimate SEIAA immediately if there is any change in their official address / E-mail / Ph. No / Cell. no etc failing which communication sent to them on old address shall be considered as delivered.

(iv) This Environmental Clearance is issued without affecting any court order / statutory other institutions as well as relevant other laws enactment by Ministry of Environment, Forest & Climate Change, Government of India, New Delhi.

I. Statutory compliance:

1. The Project Proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.

2. The Project Proponent will obtain CTE from the BSPCB before preparing site for construction; if applicable and CTO before giving occupancy.

3. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment, etc. as per National Building Code including protection measures from lightening, etc.

4. All directions of the Airport Authority, Director of Explosives and Fire Department, etc. shall be complied with.

5. The Project Proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the Bihar State Pollution Control Board.

6. The Project Proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.

7. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.

8. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by Project Proponents from the respective competent authorities.

9. The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.

10. The Project Proponent shall follow the ECBC / ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power, GoI. strictly.

11. The facilities provided for collection, segregation, handling, on site storage &processing of solid waste such as chute system for multi-storey buildings, wet & dry bins, collection centre & mechanical composter, etc. shall be properly maintained. The collected solid waste shall be segregated at site. The recyclable solid waste shall be sold out to the authorized vendors / recyclers for which a written tie-up must be done with the authorized vendors / recyclers.

12. Hazardous waste / E-waste should be disposed off as per Rules applicable and with the necessary approval of the Bihar State Pollution Control Board.

13. Solar power plant or other solar energy related equipment's shall be operated and maintained properly.

14. Provisions shall be made for the integration of solar water heating system.

15. Environmental Clearance conditions applicable for construction and operation phase which are in the interest of public at large must be displayed at prominent place which can be easily accessible to public along with address and contact number of authorities to whom violation of EC conditions can be reported.

16. Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto. 1/3rd of the building height or 10 meters height whichever is more to prevent dispersion of dust particulate (fugitive emission) matter from the construction site.

17. Construction of appropriate civil structure and creation of other facilities shall be undertaken to provide benefit of the person suffering from disability in accordance with Hon'ble Supreme Court of India order dated 15th December 2017 in Writ Petition (Civil) 292 of 2006 with WP (Civil) 997 of 2013 (Disabled Rights Grout &Anr. Vs Union of India &Ors).

II. Air quality monitoring and preservation

1. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.

2. Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto 1/3rd of the building height or upto 10 meters height whichever is more to prevent dispersion of particulate matter (fugitive emission) from the construction site. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. Plastic / tarpaulin sheet covers shall be provided for vehicles bringing all loose construction material e.g sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

3. A Management Plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.

4. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height

of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets.

5. Dust, smoke& other air pollution prevention measures shall be provided for the building as well as the site.

6. All loose construction material e.g sand, soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.

7. Wet jet shall be provided for grinding and stone cutting.

8. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

9. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016.

10. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection), Act 1986 prescribed for air and noise emission standards.

11. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

12. For indoor air quality the ventilation provisions as per National Building Code of India shall be implemented.

III. Water quality monitoring and preservation:

1. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wet land and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.

2. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

3. Total fresh water use shall not exceed the proposed requirement as provided in the project details.

4. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the Project Proponent. The record shall be submitted to the, SEIAA/ Regional Office, MoEF&CC along with six monthly Monitoring reports.

5. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

6. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape, etc. would be considered as pervious surface.

7. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing, etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning, etc. shall be done.

8. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators, etc.) for water conservation shall be incorporated in the building plan.

9. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.

10. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

11. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rainwater

harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.

12. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built-up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.

13. All recharge should be limited to shallow aquifer.

14. No ground water shall be used during construction phase of the project.

15. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.

16. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed into municipal drain.

17. No sewage or untreated effluent water would be discharged through storm water drains.

18. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged asper statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.

19. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

20. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health

and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

21. Separate drainage system shall be developed for storm water so that end point discharge to nearest nallah / river is ensured to avoid water logging without any increase in the pollution load in receiving system.

22. Possibilities need to be explored to use STP waste water during construction phase. Fresh water shall be used only after exhausting the possibility of obtaining STP waste water located in municipal jurisdiction.

IV. Noise monitoring and prevention:

1. Ambient noise levels shall conform to residential area silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

2. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures:

1. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.

2. Outdoor and common area lighting shall be LED.

3. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per Energy Conservation Building Code (ECBC) specifications.

4. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.

5. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-law's requirement, whichever is higher.

6. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VI. Waste Management:

1. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste (M.S.W.) generated from project shall be obtained.

2. Proper composting / vermi-composting of municipal and biodegradable solid wastes shall be carried out. All municipal solid wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Solid Wastes Management, 2016 (As amended).

3. All the top soil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site.

4. Disposal of muck during construction phase shall not create any adverse effect on the neighbouring communities and be disposed taking necessary precautions for generalsafety and health aspects of people, only in approved sites with the approval of competent authority.

5. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.

6. Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.

7. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.

8. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the Bihar State Pollution Control Board.

9. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks, and other environment friendly materials.

10. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016, Ready mixed concrete must be used in building construction.

11. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.

12. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover:

1. No tree should be felled unless exigencies demand. Wherever absolutely necessary, tree translocation shall be done with prior permission from the concerned regulatory authority. Old trees should be retained/translocated based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured in the ratio of species cut to species planted.

2. 4,7618.48 sqm. (24%) of the total plot area shall be kept under green belt cover within the project site.

3. All the efforts shall be made not to fell any tree however if any tree need to be removed necessarily, it may be translocated with prior permission from concerned local Authority. In case of felling, plantations to be ensured in the ratio of species cut / removed to species planted. Area for green belt development shall be provided as per the details provided in the Project document.

4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and re-applied during plantation of the proposed vegetation on site.

VIII. Transport:

1. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.

a) Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
b) Traffic calming measures.
c) Proper design of entry and exit points.
d) Parking norms as per local regulation.
e) Proper signages.

2. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

3. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./competent authority for road augmentation and shall also have their consent to the

implementation of components of the plan which involve the participation of these departments.

IX. Human health issues:

1. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.

2. For indoor air quality the ventilation provisions as per National Building Code of India.

3. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

5. Occupational health surveillance of the workers shall be done on a regular basis.

6. A First Aid Room shall be provided in the project both during construction and operations of the project.

X. Corporate Environment Responsibility:

1. The Project Proponent shall comply with the provisions contained in this Ministry's OM vide F. No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.

2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements/deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

3. A separate Environmental cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly the head of the organization.

4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the SEIAA/ Ministry, Regional Office along with the Six-Monthly Compliance Report.

XI. Additional Conditions:-

1. Provide Waste water drain, rainwater drain and water supply pipe separately. Nothing should be drained outside the campus through underground pipes and nothing should be pumped to groundwater. All the sewage drains shall be covered.

2. Provide Safety measures (Fire, disaster, flood, etc.), /medical facilities and arrangement for physically challenged persons.

3. All the building apartment block, green area and green building of the Campus must be as per RERA and Govt. of Indian Guidelines for residential apartments having high population load (more than 2000 people).

XII. Special Conditions:-

1. Provide solar panels in 30% of total rooftop area (open terrace).

2. Plantation along the road as suggested in the meeting by increasing green belt and foot path.

3. Corporate Environmental responsibility (CER) proposal, in consultation with the concerned authority of the Local Body (Municipal Corporation/Municipality/Nagar Panchayat/Gram Panchayat) by clearly outlining the type of activities, which shall predominantly include Municipal Solid Waste Management activities like-

   a) Material Recovery Facilities.
   b) Waste processing Facilities.

c) Waste collection vehicles, etc.

4. Make provisions for electric vehicle charging point at each parking area, for both four wheelers and two wheelers.

XIII. Miscellaneous:

1. The Project Proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded Environmental Clearance and the details of MoEF&CC/SEIAA, Bihar website where it is displayed.

2. The copies of the Environmental Clearance shall be submitted by the Project Proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

3. All utility lines (electricity, telephone, cable, water supply, sewage, drainage, etc. shall be laid below ground level. Ducts shall be provided along and across the roads to lay the utility lines. Major trunk (water/sewerage) lines are to be laid along the utility corridor.

4. Rest room facilities shall be provided for service population.

5. The Project Proponent shall upload the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

6. The Project Proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during their presentation to the State Expert Appraisal Committee.

7. The Project Proponent shall submit six-monthly reports on the status of the compliance of the stipulated Environmental Conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

8. The Project Proponent shall submit the environmental statement for each financial year in Form-V to the Bihar State Pollution Control Board as prescribed under the Environment

(Protection) Rules, 1986, as amended subsequently and put on the website of the company.

9. The Project Proponent shall inform the SEIAA, Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

10. The project authorities must strictly adhere to the stipulations made by the Bihar State Pollution Control Board and the State Government.

11. No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Bihar.

12. Concealing factual data or submission of false/fabricated data may result in revocation of this Environmental Clearance and attract action under the provisions of Environment (Protection) Act, 1986.

13. The Environmental Clearance granted on the basis of submitted layout plan of the proposed construction of buildings/establishments of industries shall be provisional for a period of one year or till its approved by the competent authority whichever is earlier. Should there be any deviation / change in the layout plan (as contained in the project proposal on which Environmental Clearance is granted), the Project Proponent shall furnish a copy along with a request to SEIAA, Bihar to make necessary correction/revision in the Environmental Clearance accordingly. Any failure on part of the Project Proponent in doing so will be treated as a violation of Environmental Clearance condition.

14. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

15. The SEIAA reserves the right to stipulate additional conditions if found necessary which shall be implemented in a time bound manner.

16. The Regional Office of the MoEF&CC, GoI / SEIAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

17. Project Proponent shall erect a signboard on his project site and display information regarding name of the project, Environmental Clearance letter No., date and validity period of Environmental Clearance, and Environmental Clearance conditions which affect general public at large along with name of authority to which violation of Environmental Clearance conditions can be reported.

18. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

19. Environmental Clearance shall remain valid for a maximum period of 7 years or completion of project whichever is earlier.

20. Any appeal against this Environmental Clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Sd/-

(Sudhir Kumar)
Member-Secretary
SEIAA, Bihar

Copy, through email, for information and necessary action to :–

1. Hon'ble Minister, Environment, Forest and Climate Change Deptt., Govt. of Bihar, Patna.
2. The Additional Chief Secretary, Environment, Forest and Climate Change Deptt., Govt. of Bihar, Sinchai Bhawan, Patna - 15.
3. The Chairman, RERA, Patna.
4. The Chairman, SEAC, Bihar.
5. The Member Secretary, B.S.P.C.B.-cum- Member Secretary SEAC, Bihar.
6. RO, Regional office, MoEF&CC, Bungalow No. A - 2, Shyamali Colony, Doranda, Ranchi - 834002.
7. Guard file.

6.5.2022

(Sudhir Kumar)
Member Secretary,
SEIAA, Bihar

Signature Not Verified
Digitally signed by Mr. Sudhir Kumar
Member Secretary
Date: 5/6/2022 6:08:44 PM

जिला खनन कार्यालय, बक्सर

पत्रांक...../एम0 दिनांक.....।

सेवा में,

मेसर्स बालाजी इंजीनिरिया प्र० लि०
प्रो0– ऋषी केश सिंह
पता– हाउस न०–8, रोड़ न०–9A,
इन्द्रपुरी, पाटलीपुत्रा, पटना (बिहार)।

विषयः– **खनन योजना (Mining Plan) अनुमोदन के संबंध में।**

महाषय,

उपर्युक्त विषय के संबंध में कहना है कि बक्सर जिलान्तर्गत, चौसा थानान्तर्गत मौजा/ग्राम– रोहनीभान & हिगंही, खाता नं0– 20, 35, 73, 618. खेसरा नं0– 518, 619, 575, 578. रकवा 02.53 हेक्टेयर में लघु खनिज साधरण मिट्टी के खनन हेतु प्रस्तुत खनन योजना का अनुमोदन संयुक्त बिहार पटना के पत्रांक–4156/एम0 पटना दिनांक–27.12.16 के आलोक में निम्न शर्तो के साथ अनुमोदन किया जा रहा है।

40,986.00 m^3.

1. खनन योजना का अनुमोदन 40,986 घन मी0 वर्ष 2022–23 के लिए ही साधारण मिट्टी के उत्पादन हेतु अनुमान्य किया गया है।
2. साधारण मिट्टी खनन की गहराई सतह से 1.5 मी0 से अधिक नहीं होगा।
3. खनन कार्य ग्राउन्ड वाटर लेबल से कम से कम 02 मी0 उपर तक ही सीमित रखा जाऐगा।
4. प्रस्तावित उत्खनन् की गहराई के कम से कम आधे के बराबर चौड़ाई रखने वाले सटे मैदानों की सीमा से पटरी छोड़ दी जाएगी।
5. पथ निर्माण, तटबंध निर्माण आदि के प्रयोजनार्थ साधरण मिट्टी के खनन/उत्खनन् से संबंधित क्रियाकलाप में विस्फोटक का प्रयोग नहीं होगा।
6. खनन/उत्खनन् संबंधी क्रिया–कलाप कार्य क्षेत्र के सामान्य जल निकासी के प्रतिरूप (पैटर्न) को परिवर्तित नहीं करेगा।
7. खोदे गए/उत्खनित गड्ढा (पिट) को परियोजना प्रस्तावक द्वारा उपयोगी प्रयोजन (प्रयोजनों) के लिए पुनः स्थापित किया जाएगा।
8. खोदे गए/उत्खनित गड्ढा के चारों ओर समुचित घेराबंदी कर दी जाएगी, ताकि किसी दुर्घटना से बचा जा सके।
9. ढुलाई के दौरान खोदी गई/उत्खनित मिट्टी के फैलने से धूल उत्सर्जन को रोकने के लिए उपाय किए जाएगें।
10. मिट्टी के खनन/उत्खनन के कारण सृजित जल निकायों में रोगवाहकों (वेक्टर) के प्रजनन के कारण स्वास्थ्य खतरों के विरूद्ध सुरक्षा मानक अपनाये जाएँगे।

11. कामगारों/मजदूरों को पेयजल और सफाई संबंधी सुविधाएँ प्रदान की जाएँगी।
12. किसी उत्खनन क्षेत्र की परिधि से किसी असैनिक संरचना की दूरी कम से कम 15 मीटर रखी जाएगी।
13. राष्ट्रीय पार्को और वन्य प्राणी अभ्यारण्य की सीमा के 1 किलो मीटर के अन्दर उत्खनन के क्षेत्र के मामले में साधारण मिट्टी के खनन/उत्खनन् की अनुमति नहीं दी जाएगी।
14. खनन योजना में खनन कार्य बेंच बनाकर किया जाऐगा जिसकी अधिकतम उँचाई 1.5 मी0 एवं चौड़ाई कम से कम 3.0 मी0 होनी चाहिए।
15. खनन कार्य के दौरान निकाले गये टॉप स्वायल को व्यस्थित रूप से एकत्रित कर रखा जाऐगा, जिसे खनन कार्य समाप्त होने के उपरान्त उसी क्षेत्र में फैला दिया जाऐगा।।
16. खनन योजना में वार्णित भूमि के स्वामिस्व तथा भूस्वामियों की सहमती से संबंधित अभिलेखों की पुष्टि करा लिया जाना उपेक्षि होगा।
17. भविष्य में किसी प्रकार की कोई भी गलती खनन योजना अथवा कार्य में पाई जाएगी तो खनन योजना स्वतः निरस्त माना जाएगा।

05/12/22.
खनिज विकास पदाधिकारी
जिला खनन कार्यालय
बक्सर।

ज्ञापांक 628 /एम0 दिनांक 05/12/22
प्रतिलिपिः— R.Q.P. प्रवीण कुमार सिन्हा मंगल मार्केट राजा बाजार को सूचनार्थ प्रेषित।

05/12/22
खनिज विकास पदाधिकारी
जिला खनन कार्यालय
बक्सर।

Annexure-1.

जिला खनन कार्यालय, बक्सर

पत्रांक 221 /एम0 दिनांक 02/02/2023

सेवा में,

मेसर्स बालाजी इंजीनिरिया प्र० लि०
प्रो0– ऋषी केश कुमार
पता– हाउस न०–8, रोड़ न०–9A,
इन्द्रपुरी, पाटलीपुत्रा, पटना (बिहार)।

विषयः– **खनन योजना (Mining Plan) अनुमोदन के संबंध में।**

महाषय,

उपर्युक्त विषय के संबंध में कहना है कि बक्सर जिलान्तर्गत, राजपुर थानान्तर्गत मौजा/ग्राम–नावर & भीलमपुर, खाता नं0–21, 22, 26. खेसरा नं0–60, 358, 230, 233, 235. रकवा 4.85 हेक्टेयर में लघु खनिज साधरण मिट्टी के खनन हेतु प्रस्तुत खनन योजना का अनुमोदन सयुक्त बिहार पटना के पत्रांक–4156/एम0 पटना दिनांक–27.12.16 के आलोक में निम्न शर्त्तो के साथ अनुमोदन किया जा रहा है।

1. खनन योजना का अनुमोदन 78,570 घन मी0 वर्ष 2023–24 के लिए ही साधारण मिट्टी के उत्पादन हेतु अनुमान्य किया गया है।
2. साधारण मिट्टी खनन की गहराई सतह से 1.5 मी0 से अधिक नहीं होगा।
3. खनन कार्य ग्राउन्ड वाटर लेबल से कम से कम 02 मी0 उपर तक ही सीमित रखा जाऐगा।
4. प्रस्तावित उत्खनन् की गहराई के कम से कम आधे के बराबर चौडाई रखने वाले सटे मैदानों की सीमा से पटरी छोड़ दी जाएगी।
5. पथ निर्माण, तटबंध निर्माण आदि के प्रयोजनार्थ साधरण मिट्टी के खनन/उत्खनन् से संबंधित क्रियाकलाप में विस्फोटक का प्रयोग नहीं होगा।
6. खनन/उत्खनन् संबंधी क्रिया–कलाप कार्य क्षेत्र के सामान्य जल निकासी के प्रतिरूप (पैटर्न) को परिवर्तित नहीं करेगा।
7. खोदे गए/उत्खनित गड्ढा (पिट) को परियोजना प्रस्तावक द्वारा उपयोगी प्रयोजन (प्रयोजनों) के लिए पुनः स्थापित किया जाएगा।
8. खोदे गए/उत्खनित गड्ढा के चारों ओर समुचित घेराबंदी कर दी जाएगी, ताकि किसी दुर्घटना से बचा जा सके।
9. ढुलाई के दौरान खोदी गई/उत्खनित मिट्टी के फैलने से धूल उत्सर्जन को रोकने के लिए उपाय किए जाएगें।
10. मिट्टी के खनन/उत्खनन के कारण सृजित जल निकायों में रोगवाहकों (वेक्टर) के प्रजनन के कारण स्वास्थ्य खतरों के विरूद्ध सुरक्षा मानक अपनाये जाएँगे।

CP-98

11. कामगारों/मजदूरों को पेयजल और सफाई संबंधी सुविधाएँ प्रदान की जाएँगी।
12. किसी उत्खनन क्षेत्र की परिधि से किसी असैनिक संरचना की दूरी कम से कम 15 मीटर रखी जाएगी।
13. राष्ट्रीय पार्को और वन्य प्राणी अभ्यारण्य की सीमा के 1 किलो मीटर के अन्दर उत्खनन के क्षेत्र के मामले में साधारण मिट्टी के खनन/उत्खनन् की अनुमति नहीं दी जाएगी।
14. खनन योजना में खनन कार्य बेंच बनाकर किया जाऐगा जिसकी अधिकतम उँचाई 1.5 मी0 एवं चौड़ाई कम से कम 3.0 मी0 होनी चाहिए।
15. खनन कार्य के दौरान निकाले गये टॉप स्वायल को व्यस्थित रूप से एकत्रित कर रखा जाऐगा, जिसे खनन कार्य समाप्त होने के उपरान्त उसी क्षेत्र में फैला दिया जाऐगा।
16. खनन योजना में वार्णित भूमि के स्वामिस्व तथा भूस्वामियों की सहमती से संबंधित अभिलेखों की पुष्टि करा लिया जाना उपेक्षि होगा।
17. भविष्य में किसी प्रकार की कोई भी गलती खनन योजना अथवा कार्य में पाई जाएगी तो खनन योजना स्वतः निरस्त माना जाएगा।

खनिज विकास पदाधिकारी
जिला खनन कार्यालय
बक्सर।

ज्ञापांक 221 /एम0 दिनांक 03/03/23
प्रतिलिपिः— R.Q.P. प्रवीण कुमार सिन्हा मंगल मार्केट राजा बाजार को सूचनार्थ प्रेषित।

Ambik Kumar
03/03/23
खनिज विकास पदाधिकारी
Fo- जिला खनन कार्यालय
बक्सर।

फार्म III {स्कीम–III के पैरा 3 के उप–पैरा (5) को देखें}
Form III {Refer Sub-Para (5) of Para 3 of Scheme III}

Appendix-8

भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
पर्यावरण प्रबंध पद्धति प्रमाणन लाइसेंस
LICENCE FOR THE ENVIRONMENTAL MANAGEMENT SYSTEMS CERTIFICATION

लाइसेंस सं.- ईएम/एल-**5000639**

Licence NO. EM/L-5000639

भारतीय मानक ब्यूरो अधिनियम, 2016(2016 का 11) द्वारा प्रदत्त शक्तियों के नाते, बक्सर थर्मल पॉवर प्रोजेक्ट, (एसजेवीएन थर्मल पीवीटी लिमिटेड का यूनिट), मोहनपूर्वा, अखाऊरीपुर गोला, चौसा, जिला – बक्सर, बिहार - 802114 को मंजूरी देता हैं (जिसे इसमें इसके पश्चात इसे अनुज्ञप्तिधारी कहा गया है) इस अनुसूची में वर्णित विशेष तौर पर उत्पाद एवं/या सेवाओं या प्रक्रियाओं के संबंध में पर्यावरण प्रबंध पद्धति प्रमाणन के अनुज्ञप्तिधारकों की ब्यूरो की सूची में अनुज्ञप्ति के अनुसार इसी संख्या धारक को अधिकार एवं अनुज्ञप्ति सूचीबद्ध किया जाए। IS/ISO 14001:2015 के अनुसार पर्यावरण प्रबंध पद्धति के अधीन उक्त किए गये पते पर केवल अनुज्ञप्तिधारक धारक द्वारा ऐसे उत्पाद एवं /या सेवाओं या प्रक्रियाओं को निर्मित किया/उपलब्ध कराया/चलाया जायेगा |

By virtue of the power conferred on it by, the Bureau of Indian Standards Act, 2016 (11 of 2016), the Bureau hereby grants to **Buxar Thermal Power Project, (Unit of SJVN Thermal Pvt. Limited), Mohanpurwa, Akhaouripur Gola, Chausa, Dist - Buxar, Bihar - 802114** (hereinafter called the Licensee) the right and licence to be listed in the Bureau's list(s) of Licensee of Environmental Management Systems Certification in respect of the products and/or services or processes particularly described in the schedule hereto, bearing the same number as this licence. Such products and/or services or processes shall be manufactured/provided/carried out by the Licensee at only the address(es) given above, and under the Environmental Management Systems in accordance with **IS/ISO 14001:2015**

अनुज्ञप्ति उक्त अधिनियम और उनके अधीन नियमों तथा विनियमों के संबंधित उपबंधों की शर्त पर मंजूर किया गया है तथा उक्त संदर्भित अनुज्ञप्तियों को इसके तहत शासित किया जाता है, तथा अनुज्ञप्तिधारक उक्त नियमों एवं विनियमों का पालन किए जाने के लिए प्रतिज्ञाबद्ध है |

The licence is granted subject to the relevant provisions of the above Act and the rules and regulations made thereunder governing the licences referred to above, and the Licensee hereby covenants with the Bureau duly to observe with the said Rules and Regulations

यह अनुज्ञप्ति तारीख **31 जनवरी 2023** से **30 जनवरी 2026** तक विधिमान्य रहेगा और विनियमों में यथाविहित पुनः प्रमाणन किया जा सकेगा |

This licence shall be valid from **31 January 2023 to 30 January 2026** and may be recertified as prescribed in the Regulations.

2023 के माह के दिन हस्ताक्षरित एवं मुहराकिंत

Signed, Sealed and Dated this 28th February Two Thousand and Twenty Three.

डी.चक्रबर्ती
D.Chakrabarti
उप महानिदेशक
Deputy Director General
भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

भारतीय मानक ब्यूरो / BUREAU OF INDIAN STANDARDS
एन एस आई सी भवन (आठवी मंजिल), प्लॉट नंबर 7/7, 7/8,
ब्लॉक - सीपी, सेक्टर - V, सॉल्ट लेक, कोलकाता - 700091
NSIC Building (8th Floor) at Plot No. 7/7, 7/8,
Block - CP, Sector - V, Salt Lake, Kolkata - 700091

भारतीय मानक ब्यूरो IS/ ISO 14001
BUREAU OF INDIAN STANDARDS EMS

BUREAU OF INDIAN STANDARDS

लाइसेंस सं. ईएम/एल –5000639 की अनुसूची
Schedule to licence No. EM/L-5000639

जारी : बक्सर थर्मल पॉवर प्रोजेक्ट, (एसजेवीएन थर्मल पीवीटी लिमिटेड का यूनिट),
मोहनपूर्वा, अखाऊरीपुर गोला, चौसा, जिला – बक्सर, बिहार – 802114
Issued to: Buxar Thermal Power Project, (Unit of SJVN Thermal Pvt. Limited),
Mohanpurwa, Akhaouripur Gola, Chausa,
Dist - Buxar, Bihar – 802114

अनुसूची
SCHEDULE

उत्पाद/सेवा/प्रक्रिया हेतु फ़र्म को अनुज्ञप्ति मंजूर की गई है:
पर्यावरण प्रबंध पद्धति प्रमाणन
Products/services/processes with respect to which the firm has been granted the licence for
Environmental Management Systems Certification:

"All activities in respect of Construction, Erection and Commissioning of 1320 MW Buxar Thermal Power Project".
At: Buxar Thermal Power Project, (Unit of SJVN Thermal Pvt. Limited), Mohanpurwa, Akhaouripur Gola, Chausa, Distt. - Buxar, Bihar - 802114

डी.चक्रबर्ती
D.Chakrabarti
उप महानिदेशक
Deputy Director General
भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

भारतीय मानक ब्यूरो / BUREAU OF INDIAN STANDARDS
एन एस आई सी भवन (आठवी मंजिल), प्लॉट नंबर 7/7, 7/8,
ब्लॉक - सीपी, सेक्टर - V, सॉल्ट लेक, कोलकाता - 700091
NSIC Building (8th Floor) at Plot No. 7/7, 7/8,
Block - CP, Sector - V, Salt Lake, Kolkata - 700091

भारतीय मानक ब्यूरो IS/ ISO 14001
BUREAU OF INDIAN STANDARDS EMS

Appendix-9

VISION DOCUMENT OF 1320 MW, BUXAR THERMAL POWER PROJECT (BTPP)

1.0 Introduction:-

The installed power generation capacity of India as on is 4,16,591.38 MW and out of this the installed generation capacity in Bihar is 7,323 MW including the allocated shares from central generating stations. As per the 18th EPS published by Central Electricity Authority (CEA), the estimated peak load demand in Bihar at the end of 13th 5-year plan (FY 2021-22) is 9,306 MW. The actual peak demand for the financial year 2018-19 in Bihar was 5115 MW and the peak demand met was 5084MW leaving a peak deficit of 0.6%. It may be noted that the actual power scenarios is less than the projections as per the 18th EPS and also the per capita power consumption in Bihar is lowest at 265 units per annum, against the national average of 1,060 units per annum. The Bihar state government is taking steps to provide access to electricity all households and also agriculture needs in rural areas. To meet up with overall national objective and to enable Bihar access to additional power required to sustain the high growth rate being witnessed, Govt. of Bihar had taken the initiative for developing Thermal Power Projects in the state through Bihar Power Infrastructure Company (BPIC), a joint venture between Bihar State Power Holding Company Limited (BSPHCL) with IL&FS Energy Development Company Limited (IEDCL). BPIC and BSEB had identified a site near village Chausa in District Buxar for the development of 2x660 MW Coal based Thermal Power Project. SJVN, a schedule 'A'PSU and a joint venture of the Govt. of India and the State Govt. of HP, acquired the project through its subsidiary SJVN Thermal Pvt. Ltd. in 2013.

The proposed 1320 Buxar Thermal Power Project (2x660MW) power project was conceived to meet the energy deficit of Bihar state. As per the power purchase agreement 85% of the power generated at the proposed project will be made available to Bihar state for various uses. Due to the location advantage of the Project in terms of availability of water, power evacuation facilities and coal, the cost of power is expected to be competitive.

The proposed project would cater to the ever-increasing demand of electricity in the state of Bihar. It will also increase the availability of electricity in rural areas for agricultural purposes, small scale industries and subsequently helps in improving overall development in agricultural, industrial and infrastructural facilities.

2.0 Long Term Vision for the Project:-

The long-term vision of the proposed power project is sustainable power generation maintaining high standards of efficiency and financial strength, over the design life (25

years) and extended life of the project through suitable Renovation and Modernization Programmes from Time to Time and stated hereunder;

2.1 Vision for Project Site:-

- To provide uninterrupted and quality power to the Bihar state grid to bridge the demand and supply gap
- Optimal utilization of land by maximizing electrical generation per unit area of the plant. Optimizing specific water consumption requirement for the plant processes to meet the norms for the thermal power projects prescribed by Ministry of Environment Forest and Climate Change (MoEF&CC). Continual improvement in efficiency and PLF through efficient operation and maintenance and Renovation and Modernization Programmes from Time to Time gaining extended life of the project
- Certification of Project with ISO: 9001, ISO 14001, OSHAS-18001, SA-8000to implement best practices in operation of the plant.

2.2.1 Vision towards Technology Selection:-

The proposed 1320 MW Buxar Thermal Power Project (2x660 MW) power plant based on super critical technology which is the best available technology for the operation of the proposed project. The main advantages of the technology are:

- High Thermal Efficiency, PLF;
- Lower fuel consumption;
- Reduced ash generation;
- Faster load-changes;
- Faster start up time;
- High part load efficiency and higher adaptability for sliding pressure operation

2.2.2 Vision Towards the Environmental Protection & Pollution Control:-

To achieve better performance of the-1320 MW BTPP, the following pollution control and abatement measures are envisaged, in line with the environment clearance granted to the project by MoEF&CC:

- Recycle and Reuse of wastewater
- Adopting the good environmental management practices as per the applicable guidelines and achieving 100% compliance with regulations,

- 275 m multi-flue stack with ESP of more than 99.99 % efficiency which will be provided to control suspended particulate matter to less than 30 mg/Nm3, Providing quality fly ash (low carbon content and desired grain size). To enhance the fly ash utilization opportunities in the region, 20% of the fly ash will be provided to local brick manufacturers with no cost to encourage alternative brick manufacturing practices to conserve the natural clay soil that is being widely used by the local brick manufacturers.
- Utilization of technologies such as Flue Gas Desulphurization (FGD) and SCR to minimize ambient air pollution owing to the operation of the plant.
- Dry fly ash handling system and achieving 100% fly ash utilization as per the MOEF&CC fly ash utilization notification.
- Greenbelt will be developed in and around the plant site. Plantation of trees will also be encouraged in the nearby villages. Greenbelt will be developed with locally available plant species.
- Surveillance of all-important environmental parameters on a continuous basis and application of corrective measures Monitoring of all-important environmental parameters on a continuous basis and application of corrective measures in consultation with central and state government authorities.
- Implementation of rooftop solar power plant and rain water harvesting system at site to optimize the judicious use of resources.

2.3 Vision towards CSR:-

- To become an integral part of the local communities and encouraging social, economic and cultural aspects in the region through a sustained and need based Corporate Social Responsibility programs
- CSR activities will be taken up to fulfill the basic requirements of the people in the area. The basic requirements of the community needs will be strengthened by extending health care; educational facilities will be improved.
- To participate in various CSR activities like infrastructure development, education, medical facilities, self-employment, community development and awareness programmes, vocational training in and around the project site.
- The proposed power plant will provide direct and indirect employment to many people based on their qualification, skill sets and experience

Appendix-10

बिहार राज्य प्रदूषण नियंत्रण पर्षद्

परिवेश भवन, प्लांट न0–एन.एस–वी/2, औद्योगिक क्षेत्र,
पाटलीपुत्रा, पटना–800010

पत्रांक: 1380 पटना, दिनांक: 22.9.2021

प्रेषक

एस0 चन्द्रशेखर, भा0व0से0
सदस्य सचिव

सेवा में,

श्री संजीव शूद,
चीफ एक्जीक्यूटिव ऑफिसर,
एसजेभीएन थर्मल (प्रा0) लि0,
बक्सर ताप विद्युत परियोजना,
परियोजना कार्यालय: दूसरी मंजिल, नव दुर्गा परिसर,
कलेक्ट्रेट रोड, अम्बेदकर चौक, बक्सर-802103.

विषय: पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार के प्राधिकार के पत्र दिनांक 28.02.2017 द्वारा निर्गत पर्यावरणीय स्वीकृति के शर्त्त (सामान्य vii) के अनुपालन हेतु पर्यावरणीय वायु गुणवत्ता जाँच बिन्दू/स्थल (Location) निर्धारण के संबंध में।

प्रसंग: आपका पत्रांक STPL/08/01/15/2021-155 दिनांक 13.08.2021

महाशय,

उपर्युक्त विषय एवं प्रसंग के संबंध में सूचित करना है कि प्रस्तावित निम्नलिखित चार लोकेशन पर्यावरणीय वायु जाँच हेतु स्वीकृत किया जाता है:-

1. North of colony & Towards West of Chimney;
2. North West of Rail Bulb and North West of Chimney;
3. East of Chimney and near Main Entry; and
4. North East of Chimney and East of Ash Dyke.

उपरोक्त चार लोकेशन पर पर्यावरणीय वायु जाँच हेतु अगले एक वर्ष का एक्शन प्लान यथाशीघ्र भेजी जाय।

विश्वासिभाजन

22/9/21

(एस0 चन्द्रशेखर)
सदस्य सचिव

FPABX-0612-2261250/2262265 Fax-612-2261050

Appendix-11

SIMA LABS

Sophisticated Industrial Materials Analytic Labs Pvt. Ltd.

(GOVT. APPROVED TESTING LABORATORIES)

Address : A-3/7, Mayapuri Industrial Area, Ph-II, New Delhi - 110064
Phone : +(91)-(011) 43854300
Email : reports@simalab.com
CIN No : U74899DL1988PTC031785
Website : www.simalab.net | www.simalab.com

TC-11220

TEST REPORT

ULR : TC1122025200003779F

Party Code	: S/BHR/18922	REPORT NO.	: SE0308021525/N
*Issued to	SJVN Thermal Pvt. Ltd.	*Customer Ref.No.	: NS
	Buxar Thermal Power Project, Main Office Building, Mohanpurwa, Akhouripur Gola, Chausa, Buxar-802114, Bihar .	*Reference Date	: NS
		Date of Sampling	: 07/03/2025
		Date of Received	: 08/03/2025
		Date of Issue	: 19/03/2025
		Start Date of Analysis	: 08/03/2025
		Date of Completion	: 18/03/2025
*Sample Name	: Ground Water	Environmental Condition	: 25±2°C,RH50±15%
		Sample Condition	: OK
*Sampling Location	: STPL Office Complex	*Sample Qty.	: 6 Ltr.
		SOP/Sampling Plan	: SIMA/ENV/SOP/024
		Test Method Deviation	: NA
		Sample Collection	: Sample Collected By Us

RESULTS OF ANALYSIS

Reference : IS 10500 -2012, (Reaff. 2023) Amendment No. 1,2 & 3

Sample Description : Clear colourless liquid

S.No.	Parameter	Units	Results	Acceptable Limits (as per IS:10500-2012)	Permissible Limits (as per IS:10500-2012)	Protocols	Detection Limit
Organoleptic & Physical Parameters							
1.	Colour	Hazen	<2.0	Max. 5	Max. 15	IS:3025 (P-4)	NA
2.	Odour	NA	Agreeable	Agreeable	Agreeable	IS:3025 (P-5)	NA
3.	pH Value	NA	7.16	6.5 to 8.5	No Relaxation	IS:3025 (P-11)	NA
4.	Taste	NA	Agreeable	Agreeable	Agreeable	IS:3025 (P-7)	NA
5.	Total Dissolved Solids	mg/L	340	Max. 500	Max. 2000	IS:3025 (P-16)	NA
6.	Turbidity	NTU	<1.0	Max. 1	Max. 5	IS:3025 (P-10)	NA
General Parameter							
7.	Aluminium (as Al)	mg/L	BLQ	Max. 0.03	Max. 0.2	IS:3025 (P-2)	LOQ (0.01)
8.	Ammonia (as Total Ammonia-N)	mg/L	BDL	Max. 0.5	No Relaxation	IS:3025 (P-34)	0.1
9.	Anionic Detergents (as MBAS)	mg/L	BDL	Max. 0.2	Max. 1.0	IS:3025 (P-68)	0.1
10.	Barium (as Ba)	mg/L	BLQ	Max. 0.7	No Relaxation	IS:3025 (P-2)	LOQ (0.01)
11.	Boron (as B)	mg/L	BLQ	Max. 0.5	Max. 2.4	IS:3025 (P-2)	LOQ (0.05)
12.	Calcium (as Ca)	mg/L	45.4	Max. 75	Max. 200	IS:3025 (P-40)	NA

Authorized Signatory

Anshul Gupta	Raman Dwivedi	Pratibha Rawat	Diwakar Jha
Reviewed By	Technical Manager	Tech. Manager Micro	D.G.M Technical Environment

Remarks:
1. This Test Report is not valid without a hologram.
2. The Results listed refer only to the above tested sample & applicable parameters. Endorsement of products is neither inferred nor implied.
3. Liability of laboratory is limited to the invoiced amount only. Any dispute arising out of this report shall be subject to Delhi jurisdiction only.
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11. SIMA Stands for : Sophisticated Industrial Materials Analytic

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* Indicates details provided by the customer

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Website : www.simalab.net | www.simalab.com

TC-11220

TEST REPORT

ULR : TC1122025200003779F

Party Code : S/BHR/18922 REPORT NO. : SE0308021525/N

S.No.	Parameter	Units	Results	Acceptable Limits (as per IS:10500-2012)	Permissible Limits (as per IS:10500-2012)	Protocols	Detection Limit
13.	Chloramines (as Cl2)	mg/L	BDL	Max. 4.0	No Relaxation	IS:3025 (P-26)	0.1
14.	Chloride (as Cl)	mg/L	44.0	Max. 250	Max. 1000	IS:3025 (P-32)	NA
15.	Copper (as Cu)	mg/L	BLQ	Max. 0.05	Max. 1.5	IS:3025 (P-2)	LOQ (0.005)
16.	Fluoride (as F)	mg/L	BDL	Max. 1.0	Max. 1.5	APHA - 4500 F-D	0.05
17.	Free residual chlorine (as Cl2)	mg/L	BDL	Min. 0.2	Min. 1.0	IS:3025 (P-26)	0.1
18.	Iron (as Fe)	mg/L	BLQ	Max. 1.0	No Relaxation	IS:3025 (P-2)	LOQ (0.01)
19.	Magnesium (as Mg)	mg/L	16.2	Max. 30	Max. 100	IS:3025 (P-46)	NA
20.	Manganese (as Mn)	mg/L	BLQ	Max. 0.1	Max. 0.3	IS:3025 (P-2)	LOQ (0.01)
21.	Mineral Oil	mg/L	BDL	Max. 1.0	No Relaxation	Cl-6 of IS:3025 (P-39)	0.1
22.	Nitrate (as NO3)	mg/L	BDL	Max. 45	No Relaxation	IS:3025 (P-34)	0.05
23.	Phenolic Compound (as C6H5OH)	mg/L	BDL	Max. 0.001	Max. 0.002	IS:3025 (P-43)	0.001
24.	Selenium (as Se)	mg/L	BLQ	Max. 0.01	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
25.	Silver (as Ag)	mg/L	BLQ	Max. 0.1	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
26.	Sulphate (as SO4)	mg/L	9.3	Max. 200	Max. 400	IS:3025 (P-24)	NA
27.	Sulphide (as H2S)	mg/L	BDL	Max. 0.05	No Relaxation	IS:3025 (P-29)	0.02
28.	Total Alkalinity (as CaCO3)	mg/L	230.0	Max. 200	Max. 600	IS:3025 (P-23)	NA
29.	Total Hardness (as CaCO3)	mg/L	180.0	Max. 200	Max. 600	IS:3025 (P-21)	NA
30.	Zinc (as Zn)	mg/L	BLQ	Max. 5.0	Max. 15	IS:3025 (P-2)	LOQ (0.05)
Toxic Substance							
31.	Cadmium (as Cd)	mg/L	BLQ	Max. 0.003	No Relaxation	IS:3025 (P-2)	LOQ (0.001)
32.	Cyanide (as CN)	mg/L	BDL	Max. 0.05	No Relaxation	IS:3025 (P-27)	0.05
33.	Lead (as Pb)	mg/L	BLQ	Max. 0.01	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
34.	Mercury (as Hg)	mg/L	BLQ	Max. 0.001	No Relaxation	IS:3025 (P-65)	LOQ (0.005)
35.	Molybdenum (as MO)	mg/L	BLQ	Max. 0.07	No Relaxation	IS:3025 (P-2)	LOQ (0.01)
36.	Nickel (as Ni)	mg/L	BLQ	Max. 0.02	No Relaxation	IS:3025 (P-2)	LOQ (0.01)
37.	Total Arsenic (as As)	mg/L	BLQ	Max. 0.01	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
38.	Total Chromium (as Cr)	mg/L	BLQ	Max. 0.05	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
39.	Polychlorinated Biphenyls	mg/L	BLQ	Max. 0.0005	No Relaxation	SIMA/INS/STP/001	LOQ (0.000025)

Authorized Signatory

Anshul Gupta	Raman Dwivedi	Pratibha Rawat	Diwakar Jha
Reviewed By	Technical Manager	Tech. Manager Micro	D.G.M Technical Environment

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Website : www.simalab.net | www.simalab.com

TC-11220

TEST REPORT

ULR : TC112202520000 3779F

Party Code : S/BHR/18922 REPORT NO. : SE0308021525/N

S.No.	Parameter	Units	Results	Acceptable Limits (as per IS:10500-2012)	Permissible Limits (as per IS:10500-2012)	Protocols	Detection Limit
40.	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/L	BLQ	Max. 0.0001	No Relaxation	SIMA/INS/STP/001	LOQ (0.000025)
Pesticides Residue							
41.	2,4' DDD	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
42.	2,4' DDE	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
43.	2,4' DDT	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
44.	2,4-Dichlorophenoxy Acetic Acid	µg/L	BLQ	Max. 30	NA	SIMA/INS/STP/001	LOQ (0.01)
45.	4,4' DDD	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
46.	4,4' DDE	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
47.	4,4' DDT	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
48.	Alachlor	µg/L	BLQ	Max. 20	NA	SIMA/INS/STP/001	LOQ (0.01)
49.	Aldrin	µg/L	BLQ	Max. 0.03	NA	SIMA/INS/STP/001	LOQ (0.01)
50.	Alpha endosulfan	µg/L	BLQ	Max. 0.4	NA	SIMA/INS/STP/001	LOQ (0.01)
51.	Alpha HCH	µg/L	BLQ	Max. 0.01	NA	SIMA/INS/STP/001	LOQ (0.005)
52.	Atrazine	µg/L	BLQ	Max. 2.0	NA	SIMA/INS/STP/001	LOQ (0.01)
53.	Beta endosulfan	µg/L	BLQ	Max. 0.4	NA	SIMA/INS/STP/001	LOQ (0.01)
54.	Beta HCH	µg/L	BLQ	Max. 0.04	NA	SIMA/INS/STP/001	LOQ (0.01)
55.	Butachlor	µg/L	BLQ	Max. 125	NA	SIMA/INS/STP/001	LOQ (0.01)
56.	Chlorpyrifos	µg/L	BLQ	Max. 30	NA	SIMA/INS/STP/001	LOQ (0.01)
57.	Delta HCH	µg/L	BLQ	Max. 0.04	NA	SIMA/INS/STP/001	LOQ (0.01)
58.	Dieldrin	µg/L	BLQ	Max. 0.03	NA	SIMA/INS/STP/001	LOQ (0.01)
59.	Endosulfan sulphate	µg/L	BLQ	Max. 0.4	NA	SIMA/INS/STP/001	LOQ (0.01)
60.	Ethion	µg/L	BLQ	Max. 3.0	NA	SIMA/INS/STP/001	LOQ (0.01)
61.	Gamma-HCH (Lindane)	µg/L	BLQ	Max. 2.0	NA	SIMA/INS/STP/001	LOQ (0.01)
62.	Isoproturon	µg/L	BLQ	Max. 9.0	NA	SIMA/INS/STP/001	LOQ (0.01)
63.	Malathion	µg/L	BLQ	Max. 190	NA	SIMA/INS/STP/001	LOQ (0.01)
64.	Methyl Parathion	µg/L	BLQ	Max. 0.3	NA	SIMA/INS/STP/001	LOQ (0.01)
65.	Monocrotophos	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
66.	Phorate	µg/L	BLQ	Max. 2.0	NA	SIMA/INS/STP/001	LOQ (0.01)

Authorized Signatory

Anshul Gupta
Reviewed By

Raman Dwivedi
Technical Manager

Pratibha Rawat
Tech. Manager Micro

Diwakar Jha
D.G.M Technical Environment

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Email : reports@simalab.com
CIN No : U74899DL1988PTC031785
Website : www.simalab.net | www.simalab.com

TC-11220

TEST REPORT

ULR : TC1122025200003779F

Party Code : S/BHR/18922 REPORT NO. : SE0308021525/N

S.No.	Parameter	Units	Results	Acceptable Limits (as per IS:10500-2012)	Permissible Limits (as per IS:10500-2012)	Protocols	Detection Limit
Trihalomethanes							
67.	Bromodichloromethane	mg/L	BLQ	Max. 0.06	NA	SIMA/INS/STP/002	LOQ (0.02)
68.	Bromoform	mg/L	BLQ	Max. 0.1	NA	SIMA/INS/STP/002	LOQ (0.02)
69.	Chloroform	mg/L	BLQ	Max. 0.2	NA	SIMA/INS/STP/002	LOQ (0.02)
70.	Dibromochloromethane	mg/L	BLQ	Max. 0.1	NA	SIMA/INS/STP/002	LOQ (0.02)
Microbiological quality of water							
71.	E.Coli	per 100 ml	Absent	Shall not be detectable in any 100 ml sample	NA	IS15185: 2016	NA
72.	Total Coliform	per 100 ml	Absent	Shall not be detectable in any 100 ml sample	NA	IS15185: 2016	NA

The above tested parameters meets the requirement of IS:10500-2012
Specification (Acceptable Limit) Except Sr.No-28

NA- Not Applicable, BDL- Below Detection Limit, BLQ- Below Limit of Quantification, LOQ- Limit of Quantification

--- End of Test Report ---

Authorized Signatory

Anshul Gupta
Reviewed By

Raman Dwivedi
Technical Manager

Pratibha Rawat
Tech. Manager Micro

Diwakar Jha
D.G.M Technical Environment

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Website : www.simalab.net | www.simalab.com

TC-11220

TEST REPORT

ULR : TC1122025200003772F

Party Code : S/BHR/18922
*Issued to : SJVN Thermal Pvt. Ltd.

Buxar Thermal Power Project, Main Office Building, Mohanpurwa, Akhouripur Gola, Chausa, Buxar-802114, Bihar .

*Sample Name : Ground Water

*Sampling Location : STPL Under Construction Township

REPORT NO. : SE0308021625/N
*Customer Ref.No. : NS

*Reference Date : NS
Date of Sampling : 07/03/2025
Date of Received : 08/03/2025
Date of Issue : 19/03/2025
Start Date of Analysis : 08/03/2025
Date of Completion : 18/03/2025
Environmental Condition : 25±2°C,RH50±15%
Sample Condition : OK
*Sample Qty. : 6 Ltr.
SOP/Sampling Plan : SIMA/ENV/SOP/024
Test Method Deviation : NA
Sample Collection : Sample Collected By Us

RESULTS OF ANALYSIS

Reference : IS 10500 -2012, (Reaff. 2023) Amendment No. 1,2 & 3

Sample Description : Clear colourless liquid

S.No.	Parameter	Units	Results	Acceptable Limits (as per IS:10500-2012)	Permissible Limits (as per IS:10500-2012)	Protocols	Detection Limit
Organoleptic & Physical Parameters							
1.	Colour	Hazen	<2.0	Max. 5	Max. 15	IS:3025 (P-4)	NA
2.	Odour	NA	Agreeable	Agreeable	Agreeable	IS:3025 (P-5)	NA
3.	pH Value	NA	7.32	6.5 to 8.5	No Relaxation	IS:3025 (P-11)	NA
4.	Taste	NA	Agreeable	Agreeable	Agreeable	IS:3025 (P-7)	NA
5.	Total Dissolved Solids	mg/L	420	Max. 500	Max. 2000	IS:3025 (P-16)	NA
6.	Turbidity	NTU	<1.0	Max. 1	Max. 5	IS:3025 (P-10)	NA
General Parameter							
7.	Aluminium (as Al)	mg/L	BLQ	Max. 0.03	Max. 0.2	IS:3025 (P-2)	LOQ (0.01)
8.	Ammonia (as Total Ammonia-N)	mg/L	BDL	Max. 0.5	No Relaxation	IS:3025 (P-34)	0.1
9.	Anionic Detergents (as MBAS)	mg/L	BDL	Max. 0.2	Max. 1.0	IS:3025 (P-68)	0.1
10.	Barium (as Ba)	mg/L	BLQ	Max. 0.7	No Relaxation	IS:3025 (P-2)	LOQ (0.01)
11.	Boron (as B)	mg/L	BLQ	Max. 0.5	Max. 2.4	IS:3025 (P-2)	LOQ (0.05)
12.	Calcium (as Ca)	mg/L	51.6	Max. 75	Max. 200	IS:3025 (P-40)	NA

Authorized Signatory

Anshul Gupta
Reviewed By

Raman Dwivedi
Technical Manager

Pratibha Rawat
Tech. Manager Micro

Diwakar Jha
D.G.M Technical Environment

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TC-11220

TEST REPORT

ULR : TC1122025200003772F

Party Code : S/BHR/18922 REPORT NO. : SE0308021625/N

S.No.	Parameter	Units	Results	Acceptable Limits (as per IS:10500-2012)	Permissible Limits (as per IS:10500-2012)	Protocols	Detection Limit
13.	Chloramines (as Cl2)	mg/L	BDL	Max. 4.0	No Relaxation	IS:3025 (P-26)	0.1
14.	Chloride (as Cl)	mg/L	56.9	Max. 250	Max. 1000	IS:3025 (P-32)	NA
15.	Copper (as Cu)	mg/L	BLQ	Max. 0.05	Max. 1.5	IS:3025 (P-2)	LOQ (0.005)
16.	Fluoride (as F)	mg/L	BDL	Max. 1.0	Max. 1.5	APHA - 4500 F-D	0.05
17.	Free residual chlorine (as Cl2)	mg/L	BDL	Min. 0.2	Min. 1.0	IS:3025 (P-26)	0.1
18.	Iron (as Fe)	mg/L	BLQ	Max. 1.0	No Relaxation	IS:3025 (P-2)	LOQ (0.01)
19.	Magnesium (as Mg)	mg/L	17.5	Max. 30	Max. 100	IS:3025 (P-46)	NA
20.	Manganese (as Mn)	mg/L	BLQ	Max. 0.1	Max. 0.3	IS:3025 (P-2)	LOQ (0.01)
21.	Mineral Oil	mg/L	BDL	Max. 1.0	No Relaxation	CI-6 of IS:3025 (P-39)	0.1
22.	Nitrate (as NO3)	mg/L	BDL	Max. 45	No Relaxation	IS:3025 (P-34)	0.05
23.	Phenolic Compound (as C6H5OH)	mg/L	BDL	Max. 0.001	Max. 0.002	IS:3025 (P-43)	0.001
24.	Selenium (as Se)	mg/L	BLQ	Max. 0.01	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
25.	Silver (as Ag)	mg/L	BLQ	Max. 0.1	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
26.	Sulphate (as SO4)	mg/L	6.9	Max. 200	Max. 400	IS:3025 (P-24)	NA
27.	Sulphide (as H2S)	mg/L	BDL	Max. 0.05	No Relaxation	IS:3025 (P-29)	0.02
28.	Total Alkalinity (as CaCO3)	mg/L	312.6	Max. 200	Max. 600	IS:3025 (P-23)	NA
29.	Total Hardness (as CaCO3)	mg/L	200	Max. 200	Max. 600	IS:3025 (P-21)	NA
30.	Zinc (as Zn)	mg/L	BLQ	Max. 5.0	Max. 15	IS:3025 (P-2)	LOQ (0.05)
Toxic Substance							
31.	Cadmium (as Cd)	mg/L	BLQ	Max. 0.003	No Relaxation	IS:3025 (P-2)	LOQ (0.001)
32.	Cyanide (as CN)	mg/L	BDL	Max. 0.05	No Relaxation	IS:3025 (P-27)	0.05
33.	Lead (as Pb)	mg/L	BLQ	Max. 0.01	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
34.	Mercury (as Hg)	mg/L	BLQ	Max. 0.001	No Relaxation	IS:3025 (P-65)	LOQ (0.005)
35.	Molybdenum (as MO)	mg/L	BLQ	Max. 0.07	No Relaxation	IS:3025 (P-2)	LOQ (0.01)
36.	Nickel (as Ni)	mg/L	BLQ	Max. 0.02	No Relaxation	IS:3025 (P-2)	LOQ (0.01)
37.	Total Arsenic (as As)	mg/L	BLQ	Max. 0.01	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
38.	Total Chromium (as Cr)	mg/L	BLQ	Max. 0.05	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
39.	Polychlorinated Biphenyls	mg/L	BLQ	Max. 0.0005	No Relaxation	SIMA/INS/STP/001	LOQ (0.000025)

Authorized Signatory

Anshul Gupta
Reviewed By

Raman Dwivedi
Technical Manager

Pratibha Rawat
Tech. Manager Micro

Diwakar Jha
D.G.M Technical Environment

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TC-11220

TEST REPORT

ULR : TC1122025200003772F

Party Code : S/BHR/1892

REPORT NO. : SE0308021625/N

S.No.	Parameter	Units	Results	Acceptable Limits (as per IS:10500-2012)	Permissible Limits (as per IS:10500-2012)	Protocols	Detection Limit
40.	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/L	BLQ	Max. 0.0001	No Relaxation	SIMA/INS/STP/001	LOQ (0.000025)
Pesticides Residue							
41.	2,4' DDD	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
42.	2,4' DDE	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
43.	2,4' DDT	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
44.	2,4-Dichlorophenoxy Acetic Acid	µg/L	BLQ	Max. 30	NA	SIMA/INS/STP/001	LOQ (0.01)
45.	4,4' DDD	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
46.	4,4' DDE	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
47.	4,4' DDT	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
48.	Alachlor	µg/L	BLQ	Max. 20	NA	SIMA/INS/STP/001	LOQ (0.01)
49.	Aldrin	µg/L	BLQ	Max. 0.03	NA	SIMA/INS/STP/001	LOQ (0.01)
50.	Alpha endosulfan	µg/L	BLQ	Max. 0.4	NA	SIMA/INS/STP/001	LOQ (0.01)
51.	Alpha HCH	µg/L	BLQ	Max. 0.01	NA	SIMA/INS/STP/001	LOQ (0.005)
52.	Atrazine	µg/L	BLQ	Max. 2.0	NA	SIMA/INS/STP/001	LOQ (0.01)
53.	Beta endosulfan	µg/L	BLQ	Max. 0.4	NA	SIMA/INS/STP/001	LOQ (0.01)
54.	Beta HCH	µg/L	BLQ	Max. 0.04	NA	SIMA/INS/STP/001	LOQ (0.01)
55.	Butachlor	µg/L	BLQ	Max. 125	NA	SIMA/INS/STP/001	LOQ (0.01)
56.	Chlorpyrifos	µg/L	BLQ	Max. 30	NA	SIMA/INS/STP/001	LOQ (0.01)
57.	Delta HCH	µg/L	BLQ	Max. 0.04	NA	SIMA/INS/STP/001	LOQ (0.01)
58.	Dieldrin	µg/L	BLQ	Max. 0.03	NA	SIMA/INS/STP/001	LOQ (0.01)
59.	Endosulfan sulphate	µg/L	BLQ	Max. 0.4	NA	SIMA/INS/STP/001	LOQ (0.01)
60.	Ethion	µg/L	BLQ	Max. 3.0	NA	SIMA/INS/STP/001	LOQ (0.01)
61.	Gamma-HCH (Lindane)	µg/L	BLQ	Max. 2.0	NA	SIMA/INS/STP/001	LOQ (0.01)
62.	Isoproturon	µg/L	BLQ	Max. 9.0	NA	SIMA/INS/STP/001	LOQ (0.01)
63.	Malathion	µg/L	BLQ	Max. 190	NA	SIMA/INS/STP/001	LOQ (0.01)
64.	Methyl Parathion	µg/L	BLQ	Max. 0.3	NA	SIMA/INS/STP/001	LOQ (0.01)
65.	Monocrotophos	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
66.	Phorate	µg/L	BLQ	Max. 2.0	NA	SIMA/INS/STP/001	LOQ (0.01)

Authorized Signatory

Anshul Gupta	Raman Dwivedi	Pratibha Rawat	Diwakar Jha
Reviewed By	Technical Manager	Tech. Manager Micro	D.G.M Technical Environment

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TC-11220

TEST REPORT

ULR : TC1122025200003772F

Party Code : S/BHR/18922 REPORT NO. : SE0308021625/N

S.No.	Parameter	Units	Results	Acceptable Limits (as per IS:10500-2012)	Permissible Limits (as per IS:10500-2012)	Protocols	Detection Limit
Trihalomethanes							
67.	Bromodichloromethane	mg/L	BLQ	Max. 0.06	NA	SIMA/INS/STP/002	LOQ (0.02)
68.	Bromoform	mg/L	BLQ	Max. 0.1	NA	SIMA/INS/STP/002	LOQ (0.02)
69.	Chloroform	mg/L	BLQ	Max. 0.2	NA	SIMA/INS/STP/002	LOQ (0.02)
70.	Dibromochloromethane	mg/L	BLQ	Max. 0.1	NA	SIMA/INS/STP/002	LOQ (0.02)
Microbiological quality of water							
71.	E.Coli	per 100 ml	Absent	Shall not be detectable in any 100 ml sample	NA	IS15185: 2016	NA
72.	Total Coliform	per 100 ml	Absent	Shall not be detectable in any 100 ml sample	NA	IS15185: 2016	NA

The above tested parameters meets the requirement of IS:10500-2012

Specification (Acceptable Limit) Exp Sr.No-28

NA- Not Applicable, BDL- Below Detection Limit, BLQ- Below Limit of Quantification, LOQ- Limit of Quantification

--- End of Test Report ---

Authorized Signatory

Anshul Gupta
Reviewed By

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Technical Manager

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Tech. Manager Micro

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TC-11220

TEST REPORT

ULR : TC1122025200003773F

Party Code : S/BHR/18922
*Issued to : SJVN Thermal Pvt. Ltd.

Buxar Thermal Power Project, Main Office Building,
Mohanpurwa, Akhouripur Gola, Chausa,
Buxar-802114, Bihar .

*Sample Name : Ground Water

*Sampling Location : Labour Colony-1

REPORT NO. : SE0308021725/N
*Customer Ref.No. : NS

*Reference Date : NS
Date of Sampling : 07/03/2025
Date of Received : 08/03/2025
Date of Issue : 19/03/2025
Start Date of Analysis : 08/03/2025
Date of Completion : 18/03/2025
Environmental Condition : 25±2°C,RH50±15%
Sample Condition : OK
*Sample Qty. : 6 Ltr.
SOP/Sampling Plan : SIMA/ENV/SOP/024
Test Method Deviation : NA
Sample Collection : Sample Collected By Us

RESULTS OF ANALYSIS

Reference : IS 10500 -2012, (Reaff. 2023) Amendment No. 1,2 & 3

Sample Description : Clear colourless liquid

S.No.	Parameter	Units	Results	Acceptable Limits (as per IS:10500-2012)	Permissible Limits (as per IS:10500-2012)	Protocols	Detection Limit
Organoleptic & Physical Parameters							
1.	Colour	Hazen	<2.0	Max. 5	Max. 15	IS:3025 (P-4)	NA
2.	Odour	NA	Agreeable	Agreeable	Agreeable	IS:3025 (P-5)	NA
3.	pH Value	NA	7.31	6.5 to 8.5	No Relaxation	IS:3025 (P-11)	NA
4.	Taste	NA	Agreeable	Agreeable	Agreeable	IS:3025 (P-7)	NA
5.	Total Dissolved Solids	mg/L	360	Max. 500	Max. 2000	IS:3025 (P-16)	NA
6.	Turbidity	NTU	<1.0	Max. 1	Max. 5	IS:3025 (P-10)	NA
General Parameter							
7.	Aluminium (as Al)	mg/L	BLQ	Max. 0.03	Max. 0.2	IS:3025 (P-2)	LOQ (0.01)
8.	Ammonia (as Total Ammonia-N)	mg/L	BDL	Max. 0.5	No Relaxation	IS:3025 (P-34)	0.1
9.	Anionic Detergents (as MBAS)	mg/L	BDL	Max. 0.2	Max. 1.0	IS:3025 (P-68)	0.1
10.	Barium (as Ba)	mg/L	BLQ	Max. 0.7	No Relaxation	IS:3025 (P-2)	LOQ (0.01)
11.	Boron (as B)	mg/L	BLQ	Max. 0.5	Max. 2.4	IS:3025 (P-2)	LOQ (0.05)
12.	Calcium (as Ca)	mg/L	47.4	Max. 75	Max. 200	IS:3025 (P-40)	NA

Authorized Signatory

Anshul Gupta
Reviewed By

Raman Dwivedi
Technical Manager

Pratibha Rawat
Tech. Manager Micro

Diwakar Jha
D.G.M Technical Environment

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TC-11220

TEST REPORT

ULR : TC1122025200003773F

Party Code : S/BHR/18922 REPORT NO. : SE0308021725/N

S.No.	Parameter	Units	Results	Acceptable Limits (as per IS:10500-2012)	Permissible Limits (as per IS:10500-2012)	Protocols	Detection Limit
13.	Chloramines (as Cl2)	mg/L	BDL	Max. 4.0	No Relaxation	IS:3025 (P-26)	0.1
14.	Chloride (as Cl)	mg/L	46.5	Max. 250	Max. 1000	IS:3025 (P-32)	NA
15.	Copper (as Cu)	mg/L	BLQ	Max. 0.05	Max. 1.5	IS:3025 (P-2)	LOQ (0.005)
16.	Fluoride (as F)	mg/L	BDL	Max. 1.0	Max. 1.5	APHA - 4500 F-D	0.05
17.	Free residual chlorine (as Cl2)	mg/L	BDL	Min. 0.2	Min. 1.0	IS:3025 (P-26)	0.1
18.	Iron (as Fe)	mg/L	BLQ	Max. 1.0	No Relaxation	IS:3025 (P-2)	LOQ (0.01)
19.	Magnesium (as Mg)	mg/L	18.7	Max. 30	Max. 100	IS:3025 (P-46)	NA
20.	Manganese (as Mn)	mg/L	BLQ	Max. 0.1	Max. 0.3	IS:3025 (P-2)	LOQ (0.01)
21.	Mineral Oil	mg/L	BDL	Max. 1.0	No Relaxation	Cl-6 of IS:3025 (P-39)	0.1
22.	Nitrate (as NO3)	mg/L	BDL	Max. 45	No Relaxation	IS:3025 (P-34)	0.05
23.	Phenolic Compound (as C6H5OH)	mg/L	BDL	Max. 0.001	Max. 0.002	IS:3025 (P-43)	0.001
24.	Selenium (as Se)	mg/L	BLQ	Max. 0.01	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
25.	Silver (as Ag)	mg/L	BLQ	Max. 0.1	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
26.	Sulphate (as SO4)	mg/L	8.6	Max. 200	Max. 400	IS:3025 (P-24)	NA
27.	Sulphide (as H2S)	mg/L	BDL	Max. 0.05	No Relaxation	IS:3025 (P-29)	0.02
28.	Total Alkalinity (as CaCO3)	mg/L	256.2	Max. 200	Max. 600	IS:3025 (P-23)	NA
29.	Total Hardness (as CaCO3)	mg/L	195.7	Max. 200	Max. 600	IS:3025 (P-21)	NA
30.	Zinc (as Zn)	mg/L	BLQ	Max. 5.0	Max. 15	IS:3025 (P-2)	LOQ (0.05)
Toxic Substance							
31.	Cadmium (as Cd)	mg/L	BLQ	Max. 0.003	No Relaxation	IS:3025 (P-2)	LOQ (0.001)
32.	Cyanide (as CN)	mg/L	BDL	Max. 0.05	No Relaxation	IS:3025 (P-27)	0.05
33.	Lead (as Pb)	mg/L	BLQ	Max. 0.01	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
34.	Mercury (as Hg)	mg/L	BLQ	Max. 0.001	No Relaxation	IS:3025 (P-65)	LOQ (0.005)
35.	Molybdenum (as MO)	mg/L	BLQ	Max. 0.07	No Relaxation	IS:3025 (P-2)	LOQ (0.01)
36.	Nickel (as Ni)	mg/L	BLQ	Max. 0.02	No Relaxation	IS:3025 (P-2)	LOQ (0.01)
37.	Total Arsenic (as As)	mg/L	BLQ	Max. 0.01	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
38.	Total Chromium (as Cr)	mg/L	BLQ	Max. 0.05	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
39.	Polychlorinated Biphenyls	mg/L	BLQ	Max. 0.0005	No Relaxation	SIMA/INS/STP/001	LOQ (0.000025)

Authorized Signatory

Anshul Gupta
Reviewed By

Raman Dwivedi
Technical Manager

Pratibha Rawat
Tech. Manager Micro

Diwakar Jha
D.G.M Technical Environment

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TC-11220

TEST REPORT

ULR : TC1122025200003773F

Party Code : S/BHR/18922 REPORT NO. : SE0308021725/N

S.No.	Parameter	Units	Results	Acceptable Limits (as per IS:10500-2012)	Permissible Limits (as per IS:10500-2012)	Protocols	Detection Limit
40.	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/L	BLQ	Max. 0.0001	No Relaxation	SIMA/INS/STP/001	LOQ (0.000025)
Pesticides Residue							
41.	2,4' DDD	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
42.	2,4' DDE	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
43.	2,4' DDT	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
44.	2,4-Dichlorophenoxy Acetic Acid	µg/L	BLQ	Max. 30	NA	SIMA/INS/STP/001	LOQ (0.01)
45.	4,4' DDD	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
46.	4,4' DDE	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
47.	4,4' DDT	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
48.	Alachlor	µg/L	BLQ	Max. 20	NA	SIMA/INS/STP/001	LOQ (0.01)
49.	Aldrin	µg/L	BLQ	Max. 0.03	NA	SIMA/INS/STP/001	LOQ (0.01)
50.	Alpha endosulfan	µg/L	BLQ	Max. 0.4	NA	SIMA/INS/STP/001	LOQ (0.01)
51.	Alpha HCH	µg/L	BLQ	Max. 0.01	NA	SIMA/INS/STP/001	LOQ (0.005)
52.	Atrazine	µg/L	BLQ	Max. 2.0	NA	SIMA/INS/STP/001	LOQ (0.01)
53.	Beta endosulfan	µg/L	BLQ	Max. 0.4	NA	SIMA/INS/STP/001	LOQ (0.01)
54.	Beta HCH	µg/L	BLQ	Max. 0.04	NA	SIMA/INS/STP/001	LOQ (0.01)
55.	Butachlor	µg/L	BLQ	Max. 125	NA	SIMA/INS/STP/001	LOQ (0.01)
56.	Chlorpyrifos	µg/L	BLQ	Max. 30	NA	SIMA/INS/STP/001	LOQ (0.01)
57.	Delta HCH	µg/L	BLQ	Max. 0.04	NA	SIMA/INS/STP/001	LOQ (0.01)
58.	Dieldrin	µg/L	BLQ	Max. 0.03	NA	SIMA/INS/STP/001	LOQ (0.01)
59.	Endosulfan sulphate	µg/L	BLQ	Max. 0.4	NA	SIMA/INS/STP/001	LOQ (0.01)
60.	Ethion	µg/L	BLQ	Max. 3.0	NA	SIMA/INS/STP/001	LOQ (0.01)
61.	Gamma-HCH (Lindane)	µg/L	BLQ	Max. 2.0	NA	SIMA/INS/STP/001	LOQ (0.01)
62.	Isoproturon	µg/L	BLQ	Max. 9.0	NA	SIMA/INS/STP/001	LOQ (0.01)
63.	Malathion	µg/L	BLQ	Max. 190	NA	SIMA/INS/STP/001	LOQ (0.01)
64.	Methyl Parathion	µg/L	BLQ	Max. 0.3	NA	SIMA/INS/STP/001	LOQ (0.01)
65.	Monocrotophos	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
66.	Phorate	µg/L	BLQ	Max. 2.0	NA	SIMA/INS/STP/001	LOQ (0.01)

Authorized Signatory

Anshul Gupta
Reviewed By

Raman Dwivedi
Technical Manager

Pratibha Rawat
Tech. Manager Micro

Diwakar Jha
D.G.M Technical Environment

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TC-11220

TEST REPORT

ULR : TC1122025200003773F

Party Code : S/BHR/18922 REPORT NO. : SE0308021725/N

S.No.	Parameter	Units	Results	Acceptable Limits (as per IS:10500-2012)	Permissible Limits (as per IS:10500-2012)	Protocols	Detection Limit
Trihalomethanes							
67.	Bromodichloromethane	mg/L	BLQ	Max. 0.06	NA	SIMA/INS/STP/002	LOQ (0.02)
68.	Bromoform	mg/L	BLQ	Max. 0.1	NA	SIMA/INS/STP/002	LOQ (0.02)
69.	Chloroform	mg/L	BLQ	Max. 0.2	NA	SIMA/INS/STP/002	LOQ (0.02)
70.	Dibromochloromethane	mg/L	BLQ	Max. 0.1	NA	SIMA/INS/STP/002	LOQ (0.02)
Microbiological quality of water							
71.	E.Coli	per 100 ml	Absent	Shall not be detectable in any 100 ml sample	NA	IS15185: 2016	NA
72.	Total Coliform	per 100 ml	Absent	Shall not be detectable in any 100 ml sample	NA	IS15185: 2016	NA

The above tested parameters meets the requirement of IS:10500-2012

Specification (Acceptable Limit) Exp Sr.No-28

NA- Not Applicable, BDL- Below Detection Limit, BLQ- Below Limit of Quantification, LOQ- Limit of Quantification

--- End of Test Report ---

Authorized Signatory

Anshul Gupta
Reviewed By

Raman Dwivedi
Technical Manager

Pratibha Rawat
Tech. Manager Micro

Diwakar Jha
D.G.M Technical Environment

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TC-11220

TEST REPORT

ULR : TC1122025200003774F

Party Code : S/BHR/18922
*Issued to : SJVN Thermal Pvt. Ltd.

Buxar Thermal Power Project, Main Office Building, Mohanpurwa, Akhouripur Gola, Chausa, Buxar-802114, Bihar .

*Sample Name : Ground Water

*Sampling Location : Labour Colony-2

REPORT NO. : SE0308021825/N
*Customer Ref.No. : NS
*Reference Date : NS
Date of Sampling : 07/03/2025
Date of Received : 08/03/2025
Date of Issue : 19/03/2025
Start Date of Analysis : 08/03/2025
Date of Completion : 18/03/2025
Environmental Condition : 25±2°C,RH50±15%
Sample Condition : OK
*Sample Qty. : 6 Ltr.
SOP/Sampling Plan : SIMA/ENV/SOP/024
Test Method Deviation : NA
Sample Collection : Sample Collected By Us

RESULTS OF ANALYSIS

Reference : IS 10500 -2012, (Reaff. 2023) Amendment No. 1,2 & 3

Sample Description : Clear colourless liquid

S.No.	Parameter	Units	Results	Acceptable Limits (as per IS:10500-2012)	Permissible Limits (as per IS:10500-2012)	Protocols	Detection Limit
Organoleptic & Physical Parameters							
1.	Colour	Hazen	<2.0	Max. 5	Max. 15	IS:3025 (P-4)	NA
2.	Odour	NA	Agreeable	Agreeable	Agreeable	IS:3025 (P-5)	NA
3.	pH Value	NA	7.21	6.5 to 8.5	No Relaxation	IS:3025 (P-11)	NA
4.	Taste	NA	Agreeable	Agreeable	Agreeable	IS:3025 (P-7)	NA
5.	Total Dissolved Solids	mg/L	350	Max. 500	Max. 2000	IS:3025 (P-16)	NA
6.	Turbidity	NTU	<1.0	Max. 1	Max. 5	IS:3025 (P-10)	NA
General Parameter							
7.	Aluminium (as Al)	mg/L	BLQ	Max. 0.03	Max. 0.2	IS:3025 (P-2)	LOQ (0.01)
8.	Ammonia (as Total Ammonia-N)	mg/L	BDL	Max. 0.5	No Relaxation	IS:3025 (P-34)	0.1
9.	Anionic Detergents (as MBAS)	mg/L	BDL	Max. 0.2	Max. 1.0	IS:3025 (P-68)	0.1
10.	Barium (as Ba)	mg/L	BLQ	Max. 0.7	No Relaxation	IS:3025 (P-2)	LOQ (0.01)
11.	Boron (as B)	mg/L	BLQ	Max. 0.5	Max. 2.4	IS:3025 (P-2)	LOQ (0.05)
12.	Calcium (as Ca)	mg/L	49.5	Max. 75	Max. 200	IS:3025 (P-40)	NA

Authorized Signatory

Anshul Gupta
Reviewed By

Raman Dwivedi
Technical Manager

Pratibha Rawat
Tech. Manager Micro

Diwakar Jha
D.G.M Technical Environment

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TC-11220

TEST REPORT

ULR : TC1122025200003774F

Party Code : S/BHR/18922 REPORT NO. : SE0308021825/N

S.No.	Parameter	Units	Results	Acceptable Limits (as per IS:10500-2012)	Permissible Limits (as per IS:10500-2012)	Protocols	Detection Limit
13.	Chloramines (as Cl2)	mg/L	BDL	Max. 4.0	No Relaxation	IS:3025 (P-26)	0.1
14.	Chloride (as Cl)	mg/L	25.8	Max. 250	Max. 1000	IS:3025 (P-32)	NA
15.	Copper (as Cu)	mg/L	BLQ	Max. 0.05	Max. 1.5	IS:3025 (P-2)	LOQ (0.005)
16.	Fluoride (as F)	mg/L	BDL	Max. 1.0	Max. 1.5	APHA - 4500 F-D	0.05
17.	Free residual chlorine (as Cl2)	mg/L	BDL	Min. 0.2	Min. 1.0	IS:3025 (P-26)	0.1
18.	Iron (as Fe)	mg/L	BLQ	Max. 1.0	No Relaxation	IS:3025 (P-2)	LOQ (0.01)
19.	Magnesium (as Mg)	mg/L	16.2	Max. 30	Max. 100	IS:3025 (P-46)	NA
20.	Manganese (as Mn)	mg/L	BLQ	Max. 0.1	Max. 0.3	IS:3025 (P-2)	LOQ (0.01)
21.	Mineral Oil	mg/L	BDL	Max. 1.0	No Relaxation	Cl-6 of IS:3025 (P-39)	0.1
22.	Nitrate (as NO3)	mg/L	BDL	Max. 45	No Relaxation	IS:3025 (P-34)	0.05
23.	Phenolic Compound (as C6H5OH)	mg/L	BDL	Max. 0.001	Max. 0.002	IS:3025 (P-43)	0.001
24.	Selenium (as Se)	mg/L	BLQ	Max. 0.01	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
25.	Silver (as Ag)	mg/L	BLQ	Max. 0.1	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
26.	Sulphate (as SO4)	mg/L	4.4	Max. 200	Max. 400	IS:3025 (P-24)	NA
27.	Sulphide (as H2S)	mg/L	BDL	Max. 0.05	No Relaxation	IS:3025 (P-29)	0.02
28.	Total Alkalinity (as CaCO3)	mg/L	251.1	Max. 200	Max. 600	IS:3025 (P-23)	NA
29.	Total Hardness (as CaCO3)	mg/L	190.5	Max. 200	Max. 600	IS:3025 (P-21)	NA
30.	Zinc (as Zn)	mg/L	BLQ	Max. 5.0	Max. 15	IS:3025 (P-2)	LOQ (0.05)
Toxic Substance							
31.	Cadmium (as Cd)	mg/L	BLQ	Max. 0.003	No Relaxation	IS:3025 (P-2)	LOQ (0.001)
32.	Cyanide (as CN)	mg/L	BDL	Max. 0.05	No Relaxation	IS:3025 (P-27)	0.05
33.	Lead (as Pb)	mg/L	BLQ	Max. 0.01	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
34.	Mercury (as Hg)	mg/L	BLQ	Max. 0.001	No Relaxation	IS:3025 (P-65)	LOQ (0.005)
35.	Molybdenum (as MO)	mg/L	BLQ	Max. 0.07	No Relaxation	IS:3025 (P-2)	LOQ (0.01)
36.	Nickel (as Ni)	mg/L	BLQ	Max. 0.02	No Relaxation	IS:3025 (P-2)	LOQ (0.01)
37.	Total Arsenic (as As)	mg/L	BLQ	Max. 0.01	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
38.	Total Chromium (as Cr)	mg/L	BLQ	Max. 0.05	No Relaxation	IS:3025 (P-2)	LOQ (0.005)
39.	Polychlorinated Biphenyls	mg/L	BLQ	Max. 0.0005	No Relaxation	SIMA/INS/STP/001	LOQ (0.000025)

Authorized Signatory

Anshul Gupta
Reviewed By

Raman Dwivedi
Technical Manager

Pratibha Rawat
Tech. Manager Micro

Diwakar Jha
D.G.M Technical Environment

Remarks:
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10. Duplicable copy will be issued on chargeable basis.
11. SIMA Stands for : Sophisticated Industrial Materials Analytic

Scan for Accreditation & Scope

* Indicates details provided by the customer

SIMA LABS
Sophisticated Industrial Materials Analytic Labs Pvt. Ltd.
(GOVT. APPROVED TESTING LABORATORIES)

Address : A-3/7, Mayapuri Industrial Area, Ph-II, New Delhi - 110064
Phone : +(91)-(011) 43854300
Email : reports@simalab.com
CIN No : U74899DL1988PTC031785
Website : www.simalab.net | www.simalab.com

TC-11220

TEST REPORT

ULR : TC1122025200003774F

Party Code : S/BHR/18922 REPORT NO. : SE0308021825/N

S.No.	Parameter	Units	Results	Acceptable Limits (as per IS:10500-2012)	Permissible Limits (as per IS:10500-2012)	Protocols	Detection Limit
40.	Polynuclear Aromatic Hydrocarbons (as PAH)	mg/L	BLQ	Max. 0.0001	No Relaxation	SIMA/INS/STP/001	LOQ (0.000025)
Pesticides Residue							
41.	2,4' DDD	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
42.	2,4' DDE	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
43.	2,4' DDT	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
44.	2,4-Dichlorophenoxy Acetic Acid	µg/L	BLQ	Max. 30	NA	SIMA/INS/STP/001	LOQ (0.01)
45.	4,4' DDD	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
46.	4,4' DDE	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
47.	4,4' DDT	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
48.	Alachlor	µg/L	BLQ	Max. 20	NA	SIMA/INS/STP/001	LOQ (0.01)
49.	Aldrin	µg/L	BLQ	Max. 0.03	NA	SIMA/INS/STP/001	LOQ (0.01)
50.	Alpha endosulfan	µg/L	BLQ	Max. 0.4	NA	SIMA/INS/STP/001	LOQ (0.01)
51.	Alpha HCH	µg/L	BLQ	Max. 0.01	NA	SIMA/INS/STP/001	LOQ (0.005)
52.	Atrazine	µg/L	BLQ	Max. 2.0	NA	SIMA/INS/STP/001	LOQ (0.01)
53.	Beta endosulfan	µg/L	BLQ	Max. 0.4	NA	SIMA/INS/STP/001	LOQ (0.01)
54.	Beta HCH	µg/L	BLQ	Max. 0.04	NA	SIMA/INS/STP/001	LOQ (0.01)
55.	Butachlor	µg/L	BLQ	Max. 125	NA	SIMA/INS/STP/001	LOQ (0.01)
56.	Chlorpyrifos	µg/L	BLQ	Max. 30	NA	SIMA/INS/STP/001	LOQ (0.01)
57.	Delta HCH	µg/L	BLQ	Max. 0.04	NA	SIMA/INS/STP/001	LOQ (0.01)
58.	Dieldrin	µg/L	BLQ	Max. 0.03	NA	SIMA/INS/STP/001	LOQ (0.01)
59.	Endosulfan sulphate	µg/L	BLQ	Max. 0.4	NA	SIMA/INS/STP/001	LOQ (0.01)
60.	Ethion	µg/L	BLQ	Max. 3.0	NA	SIMA/INS/STP/001	LOQ (0.01)
61.	Gamma-HCH (Lindane)	µg/L	BLQ	Max. 2.0	NA	SIMA/INS/STP/001	LOQ (0.01)
62.	Isoproturon	µg/L	BLQ	Max. 9.0	NA	SIMA/INS/STP/001	LOQ (0.01)
63.	Malathion	µg/L	BLQ	Max. 190	NA	SIMA/INS/STP/001	LOQ (0.01)
64.	Methyl Parathion	µg/L	BLQ	Max. 0.3	NA	SIMA/INS/STP/001	LOQ (0.01)
65.	Monocrotophos	µg/L	BLQ	Max. 1.0	NA	SIMA/INS/STP/001	LOQ (0.01)
66.	Phorate	µg/L	BLQ	Max. 2.0	NA	SIMA/INS/STP/001	LOQ (0.01)

Authorized Signatory

Anshul Gupta
Reviewed By

Raman Dwivedi
Technical Manager

Pratibha Rawat
Tech. Manager Micro

Diwakar Jha
D.G.M Technical Environment

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Phone : +(91)-(011) 43854300
Email : reports@simalab.com
CIN No : U74899DL1988PTC031785
Website : www.simalab.net | www.simalab.com

TC-11220

TEST REPORT

ULR : TC1122025200003774F

Party Code : S/BHR/18922 REPORT NO. : SE0308021825/N

S.No.	Parameter	Units	Results	Acceptable Limits (as per IS:10500-2012)	Permissible Limits (as per IS:10500-2012)	Protocols	Detection Limit
Trihalomethanes							
67.	Bromodichloromethane	mg/L	BLQ	Max. 0.06	NA	SIMA/INS/STP/002	LOQ (0.02)
68.	Bromoform	mg/L	BLQ	Max. 0.1	NA	SIMA/INS/STP/002	LOQ (0.02)
69.	Chloroform	mg/L	BLQ	Max. 0.2	NA	SIMA/INS/STP/002	LOQ (0.02)
70.	Dibromochloromethane	mg/L	BLQ	Max. 0.1	NA	SIMA/INS/STP/002	LOQ (0.02)
Microbiological quality of water							
71.	E.Coli	per 100 ml	Absent	Shall not be detectable in any 100 ml sample	NA	IS15185: 2016	NA
72.	Total Coliform	per 100 ml	Absent	Shall not be detectable in any 100 ml sample	NA	IS15185: 2016	NA

The above tested parameters meets the requirement of IS:10500-2012

Specification (Acceptable Limit) Exp Sr.No-28

NA- Not Applicable, BDL- Below Detection Limit, BLQ- Below Limit of Quantification, LOQ- Limit of Quantification

--- End of Test Report ---

Authorized Signatory

Anshul Gupta
Reviewed By

Raman Dwivedi
Technical Manager

Pratibha Rawat
Tech. Manager Micro

Diwakar Jha
D.G.M Technical Environment

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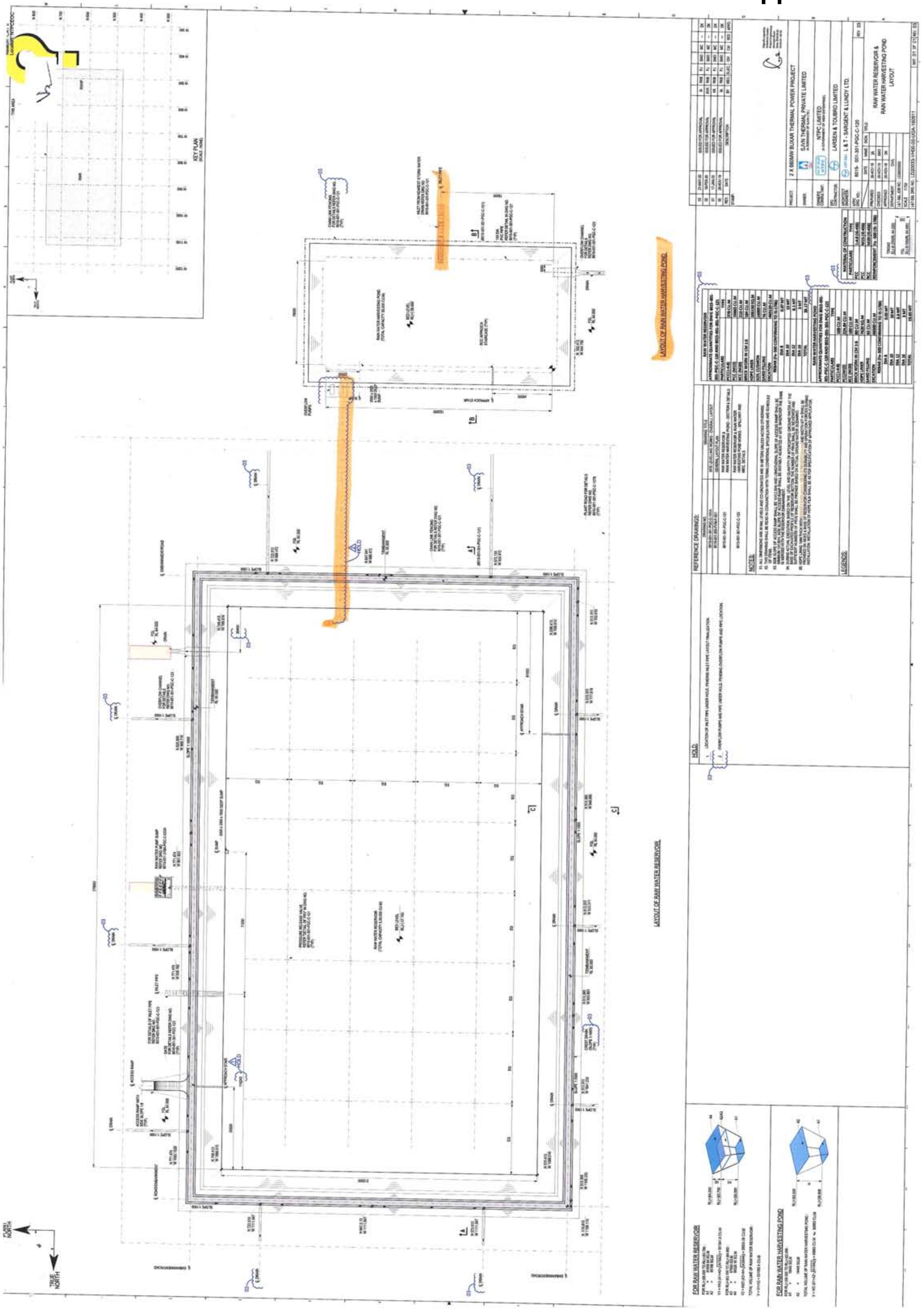
Appendix-12



LAYOUT OF RAW WATER RESERVOIR
LAYOUT OF RAIN WATER HARVESTING POND
KEY PLAN
REFERENCE DRAWINGS
NOTES:
HOLD:
LEGENDS:
FOR RAW WATER RESERVOIR
FOR RAIN WATER HARVESTING POND
2 X 660MW BUXAR THERMAL POWER PROJECT
SJVN THERMAL PRIVATE LIMITED
NTPC LIMITED
LARSEN & TOUBRO LIMITED
L&T - SARGENT & LUNDY LTD.
RAW WATER RESERVOIR & RAIN WATER HARVESTING POND LAYOUT

Appendix-13

मुख्य अभियन्ता का कार्यालय,
बाढ़ नियंत्रण एवं जल निस्तारण
जल संसाधन विभाग,पटना।

पत्रांक– 171 दिनांक– 21.1.17

सेवा में

अधीक्षण अभियन्ता
बाढ़ नियंत्रण योजना एवं मोनिटरिंग अंचल,
जल संसाधन विभाग, पटना।

विषय :– प्रस्तावित चौसा ताप विद्युत परियोजना स्थल के मध्य से प्रस्तावित बुद्धा नाला के डायवर्सन
संबंधी अनापत्ति प्रमाण पत्र निर्गत करने के संबंध में।

महाशय,

उपरोक्त विषय के सन्दर्भ में सूचित करना है कि बक्सर थर्मल पावर प्रोजेक्ट (1320 मेगावाट) चौसा का निर्माण कार्य लगभग 1064 एकड़ भू–भाग में स्टेट उच्च पथ 14 एवं स्टेट उच्च पथ 17 के पास प्रस्तावित है। प्लान्ट एरीया के मध्य से बुद्धा नाला दक्षिण से उत्तर पूर्व की दिशा में बहते हुए प्लान्ट क्षेत्र के बाहर होकर कर्मनाशा नदी में मिल जाती है। मुख्य कार्यपालक पदाधिकारी, बक्सर थर्मल पावर प्रोजेक्ट चौसा, बक्सर के पत्रांक 2329 दिनांक 27.9.2016 द्वारा बुद्धा नाला को प्लान्ट क्षेत्र से बाहर ही बैकल्पिक नालाओं द्वारा डायभर्ट करने हेतु विभागीय अनापत्ति प्रमाण पत्र. की मॉग की गई है।

प्राधिकार द्वारा प्लान्ट क्षेत्र के बाहरी वाउन्ड्री के पास से बैकल्पिक नालाओं द्वारा अंतिम बिन्दु को मिलाने का प्रस्ताव है। प्राधिकार द्वारा प्लान्ट क्षेत्र के बाहरी भाग में पश्चिम में 5122.88 मीटर लंबी नाला एवं पूरब में 4178.87 मीटर लंबी नाला निर्माण करने का प्रस्ताव है।

प्लान्ट क्षेत्र में बुद्धा नाला की कुल लम्बाई 5719.66 मीटर, इसकी औसत गहराई 2.00 मीटर से 2.25 मीटर एवं बेड की चौड़ाई 1.50 मीटर से 2.00 मीटर है।

इस नाले को 5122.80 मीटर लम्बाई 2.50 मीटर गहराई एवं 2.00 बेड वीथ वाले वैकल्पिक नाले से प्रतिस्थापित करने का प्रस्ताव है। इस वैकल्पिक नाले की जल प्रवाह क्षमता बुद्धा नाले की क्षमता से ज्यादा ही है।

द्वितीयतः परियोजना क्षेत्र के पूरव भाग में 4178.87 मीटर लम्बे नाले के निर्माण का भी प्रस्ताव है जिससे परियोजना क्षेत्र के पूर्वी क्षेत्र का जल निकासी हो सकेगा।

परियोजना क्षेत्र के दक्षिण भाग का स्लोप पूरव से पश्चिम की ओर होने के कारण इस भाग में बाहरी क्षेत्र का ड्रेन पश्चिम से पूरब की ओर हो जायेगा।

अतएव दक्षिणी भाग में बैकल्पिक ड्रेन के निर्माण की आवश्यकता नहीं है। उक्त आलोक में प्राप्त प्रस्ताव आवश्यक ड्रेन व्यवस्था के लिए पर्याप्त है अतएव निम्न बिन्दुओं पर विभागीय अनापत्ति संसूचित की जा सकती है :–

1) परियोजना क्षेत्र के पश्चिमी बाहरी भाग में बैकल्पिक नाला–1 का निर्माण :–

लम्बाई –	5122.88 मीटर
बेड बीथ –	2.00 मीटर
औसत गहराई–	2.50 मीटर
साईड स्लोप–	1.5:1 (H:V)

2) परियोजना क्षेत्र के पूर्वी बाहरी भाग में बैकल्पिक नाला–2 का निर्माण :–

लम्बाई –	4778.87 मीटर
बेड बीथ –	2.00 मीटर
औसत गहराई–	2.50 मीटर
साईड स्लोप–	1.5:1 (H:V)

<u>शर्त्ते :–</u>

1) नाला के बाहरी किनारे में बॉध का निर्माण नहीं किया जाय ताकि ड्रेन वाटर को नालें में आने अवरोध न हो।

2) यथा संभव नाले को सीधी रूप में निर्माण की जाय।

3) विभागीय अभियन्ता की देखरेख एवं उनके निर्देशों का अनुपालन अनिवार्य होगा।

अनु0 :–यथोक्त।

विश्वासभाजन,

21.1.17

मुख्य अभियन्ता
बाढ़ नियंत्रण एवं जल निस्सरण
जल संसाधन विभाग,पटना।

SJVN LIMITED
(A Joint Venture of Govt.of India & Govt. of Himachal Pradesh
A 'Mini Ratna' & Schedule 'A' PSU | ISO 9001:2015 Certified Company
CIN: L40101HP1988GOI008409

ENVIRONMENT POLICY

ENVIRONMENT POLICY STATEMENT

SJVN reaffirms its commitment towards sustainable power generation and transmission with utmost care for environment.

TOWARDS THIS COMMITMENT, SJVN WILL ENDEAVOUR TO:

- Conduct all its activities in an environmentally responsible manner and comply with applicable legal requirements, guidelines, directives and other commitments.
- Continually improve its management systems to prevent pollution and seek new and innovative ways to mitigate environmental impacts of its past, present and future activities.
- Develop and maintain efficient two-way communication with the stakeholders and collaborate with them in resolving environmental concerns.
- Minimize waste generation, promote efficient use of resources and contribute towards reduction of Green House Gas (GHG) emissions.
- Promote environmental awareness among its employees, contractors and suppliers and ensure that they have the training, knowledge, skills, resources, and equipment to meet the environmental commitments.

Appendix-15

भारत सरकार
Government of India
वाणिज्य और उद्योग मंत्रालय
Ministry of Commerce & Industry
पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पैसो)
Petroleum & Explosives Safety Organisation (PESO)
8-एस्प्लेनेड पूर्व, पहली मंजिल
कोलकाता (प.बं.)- 700069
8, Esplanade East, 1st floor,
Kolkata - 700069

E-mail : **jtccekolkata@explosives.gov.in**
Phone/Fax No : **033 - 22486600,22480427**

संख्या /No : **A/P/EC/BI/15/1988 (P522050)**

दिनांक /Dated : **27/04/2022**

सेवा में /To,

M/s. SJVN Thermal (P) Ltd.,
Buxar Thermal power project (2x660)MW, Chausa, Bux,
Chausa,
District: BUXAR
State: Bihar
PIN: 802114

विषय /Sub : **Khasra No, 433-434, Khorampur, Thana No. 42, Sikraul, Chausa, Taluka: Buxar, District: BUXAR, State: Bihar, PIN: 802114** में प्रस्तावित पेट्रोलियम वर्ग **C** अधिष्ठापन के अनुमोदन के सम्बन्ध में ।
Proposed Petroleum Storage Class C Installation at Khasra No, 433-434, Khorampur, Thana No. 42, Sikraul, Chausa, Taluka: Buxar, District: BUXAR, State: Bihar, PIN: 802114 Approval Regarding.

महोदय
/Sir(s),

कृपया आपके पत्र क्रमांक **OIN1061032** दिनांक **26/04/2022** का अवलोकन करें ।
Please refer to your letter No. **OIN1061032** dated **26/04/2022**

Drawing(s) nos. **SMPL-P-383-M-100** dated **23/07/2020**, **SMPL-P-383-M-102** dated **22/03/2022**, **111-29-0200** dated **28/05/2018**, अनुमोदित किया जाता है तथा प्रत्येक आरेखण की एक प्रति विधिवत पृष्ठांकित कर लौटाई जा रही है ।
The Drawing(s) nos. **SMPL-P-383-M-100** dated **23/07/2020**, **SMPL-P-383-M-102** dated **22/03/2022**, **111-29-0200** dated **28/05/2018**,showing the site and layout etc. of the specified installation is/are approved and one copy of the same is returned herewith in token of approval.

Conditions of the Approval:-
The storage area should be fence and separated from other facilities. minimum safety distance from A/G tanks to fensing ,Unloading/loading platform,pump house must be as per PR2002

अग्रिम कार्रवाई हेतु इस कार्यालय को प्रेषित करें ।
The following documents which are necessary in connection with the grant of a licence in Form XV of the Petroleum Rules, 2002 for the above installation may please be submitted to this office for further action in the matter.

1. प्ररूप IX(संलग्न) में विधिवत भरा हुआ एवं हस्ताक्षरित आवेदन।
   An Applicatioin in Form IX (enclosed) duly filled in and signed.
2. पेट्रोलियम नियम 2002 के तहत ऑनलाइन आवेदन पोर्टल पर उपलब्ध ई-भुगतान सुविधा के माध्यम से अनुज्ञप्ति शुल्क रू **50000**/- (प्रति वर्ष – अधिकतम 10 वर्ष तक) ऑनलाइन जमा किया जाना है।
   A license fee of Rs. **50000/-** (per year - maximum upto 10 years)to be submitted online through e-payment facility available on online application portal under petroleum Rules, 2002.
3. अनुमोदन की शर्तों को (यदि कोई हो) शामिल करते हुए तथा किसी भी इंक करेक्शएन के बिना, अधिकृत हस्ताक्षरकर्ता द्वारा विधिवत हस्ताक्षरित, अनुमोदित प्लान की ब्लू प्रिंट या सीएडी (CAD) प्रिंट में चार प्रतियाँ।
   Four copies of the approved plans.
4. इस संगठन द्वारा मान्यता प्राप्त सक्षम व्यक्ति व्दारा उनके हस्ताक्षर के स्टेंप सहित जारी पेट्रोलियम नियम 2002 के अंतर्गत नियम 130 और 126 में आवश्यक निर्धारित प्ररूप (संलग्न) में सेफ्टी और टेस्ट प्रमाण-पत्र।
   Safety and Test Certificate required under rule 130 and 126 of the Petroleum Rules, 2002 (enclosed) issued by Competent person.
5. पेट्रोलियम नियम के नियम 144 के अंतर्गत जिला प्राधिकारी व्दारा जारी 'अनापत्ति प्रमाण-पत्र' की मूल प्रति तथा उनके व्दारा विधिवत हस्ताक्षरित एवं कार्यालय की मोहर लगा हुआ साईट प्लान।
   Original copy of ' No Objection Certificate' from the District Authority together with site plan duly endorsed by him with his office seal thereon.
6. इस कार्यालय से होनेवाले पत्राचार पर हस्ताक्षर करने के लिए अधिकृत व्यक्ति(यों)के नमूना हस्ताक्षर।
   Specimen signature(s) of the person(s) authorised to sign the correspondence intended for this organisation with a copy to Controller of Explosives, Patna.
7. Copy of Hazop Study & Risk Analysis Report.
8. Copy of On-Site Emergency Plan.
9. Copy of Safety Report under Rule 10 of MSIHC Rule, 1989.

जी.एस.आर. 519(ई) दिनांक 05/06/2000 द्वारा भारत सरकार, पेट्रोलियम तथा प्राकृतिक गैस मंत्रालय द्वारा अधिसूचित आदेश 2000 के 'सॉलवेन्ट, रैफिनेट तथा स्लॉप (अधिग्रहण, बिक्री, भंडारण और ऑटोमोबाइल में उपयोग की रोकथाम) आवश्यकता/प्रावधान का कृपया पालन करें।
Please follow the requirement/provision of " Solvent, Raffinate and Slop (Acquisition, Sale, Storage & Prevention of use in Automobiles)" Order 2000 notified by Government of India, Ministry of Petroleum and Natural Gas vide G.S.R. 519 (E) dated 05/06/2000.

यह अनुमोदन/अनुमति अन्य प्राधिकारियों से आवश्यक अनुमति/क्लीयरन्स प्राप्त करने से या यथा लागू अन्य विधियों से छूट नही देती है।
This approval/permission, however, does not absolve from obtaining necessary permission/clearance from other authorities or under other statutes as applicable.

भवदीय /Yours faithfully,

((अब्दुल मुत्तालिब)
(Abdul Muttalib))
विस्फोटक नियंत्रक
Controller of Explosives
कृते संयुक्त मुख्य विस्फोटक नियंत्रक
For Jt. Chief Controller of Explosives
कोलकाता (प.बं.)/Kolkata

Note:-This is system generated document does not require signature.
(अधिक जानकारी जैसे आवेदन की स्थिति, शुल्क तथा अन्य विवरण के लिए हमारी वेबसाइट : http://peso.gov.in देखें)
(For more information regarding status,fees and other details please visit our website: http://peso.gov.in)

भारत सरकार
Government of India
वाणिज्य और उद्योग मंत्रालय
Ministry of Commerce & Industry
पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पैसो)
Petroleum & Explosives Safety Organisation (PESO)
8-एस्प्लेनेड पूर्व, पहली मंजिल
कोलकाता (प.बं.)- 700069
8, Esplanade East,
1st floor,
Kolkata - 700069

E-mail : jtccekolkata@explosives.gov.in
Phone/Fax No : 033 - 22486600,22480427

दिनांक /Dated : 24/12/2024

संख्या /No. : P/EC/BI/15/1910 (P522050)

सेवा में /To,

M/s. SJVN Thermal (P) Ltd.,
Buxar Thermal power project (2x660)MW, Chausa, Buxar,
Chausa,
District: BUXAR,
State: Bihar
PIN: 802114

विषय /Sub : Khasra No, 433-434,, Village-Sikraul, , Khorampur Thana No.- 42,, (WITHIN FACTORY PREMISES), Sikraul, Chausa, Taluka: Buxar, District: BUXAR, State: Bihar, PIN: 802114 में पेट्रोलियम वर्ग C का अधिष्ठापन -अनुज्ञप्ति जारी करने के बारे में ।

Petroleum Class C installation at Khasra No, 433-434,, Village-Sikraul, , Khorampur Thana No.- 42,, (WITHIN FACTORY PREMISES), Sikraul, Chausa, Taluka: Buxar, District: BUXAR, State: Bihar, PIN: 802114 **Grant of License** regarding.

महोदय /Sir(s),

कृपया आपके पत्र क्रमांक **OIN1846262** दिनांक **20/12/2024** का अवलोकन करें ।

Please refer to your letter No. **OIN1846262** dated **20/12/2024**

विषयान्तर्गत अधिष्ठापन में निम्नलिखित पेट्रोलियम पदार्थों के वर्ग तथा मात्रा के भंडारण के लिए पेट्रोलियम नियम, 2002 के अधीन प्ररूप - XV में स्वीकृत, दिनांक **31/12/2028** तक वैध अनुज्ञप्ति संख्या **P/EC/BI/15/1910 (P522050)** दिनांक **24/12/2024** भेजी जा रही है ।

Licence No. **P/EC/BI/15/1910 (P522050)** dated **24/12/2024** granted in Form XV under the Petroleum Rules, 2002 and valid till **31/12/2028** for the storage of the following kinds and quantities of Petroleum at the subject installation is forwarded herewith.

पेट्रोलियम का विवरण /Description of Petroleum	किलोलीटरों में अनुज्ञप्त क्षमता /Quantity licenced in KL
वर्ग क प्रपुंज पेट्रोलियम /Petroleum Class A in bulk	NIL
वर्ग क प्रपुंज पेट्रोलियम से भिन्न /Petroleum Class A, otherwise than in bulk	NIL
वर्ग ख प्रपुंज पेट्रोलियम /Petroleum Class B in bulk	NIL
वर्ग ख प्रपुंज पेट्रोलियम से भिन्न /Petroleum Class B, otherwise than in bulk	NIL
वर्ग ग प्रपुज पेट्रोलियम /Petroleum Class C in bulk	6000.00 KL
वर्ग ग प्रपुज पेट्रोलियम से भिन्ना /Petroleum Class C,otherwise than in bulk	NIL
कुल क्षमता /Total Capacity	6000.00 KL

कृपया पेट्रोलियम नियम 2002 के अधीन बनाए गए नियम 148 में दी गई प्रक्रिया का कडाई से पालन करें और अनुज्ञप्ति के नवीकरण हेतु समस्त दस्तावेजों को अनुज्ञप्ति की वैधता समाप्ती की तारीख या उससे पूर्व **Controller of Explosives, Patna** को प्रेषित करें ।

Please follow the procedure strictly as laid down in rule 148 of the Petroleum Rules, 2002 and submit complete documents for the Renewal of the licence to **Controller of Explosives, Patna**, so as to reach his office on or before the date on which Licence expires.

यह अनुमोदन/ अनुमति अन्य प्राधिकारियों से आवश्यक अनुमति/क्लीयरन्स प्राप्त करने से या यथा लागू अन्य विधियों से छूट नही देती है ।

This approval/permission, however, does not absolve from obtaining necessary permission/clearance from other authorities or under other statutes as applicable.

Condition of approval : PLEASE PROVIDE ENSURE OVERHEAT PROTECTION AND LOW LEVEL PROTECTION IN BOTH TANKS (WITH AUDIO AND VISUAL ALARMS) . (THE TEMPERATURE SHOULD REDUCE/HEATING DISCONTINUED , WHEN TANK LEVEL OF THE REDUCES TO DATUM LEVEL)
PLEASE MAINTAIN THE PREMISES EXACTLY AS PER APPROVED DRAWING. AND FOLLOW THE SOPs OF COMMISSIONING AND OPERATIONS.
PLEASE MAINTAIN ALL NECESSARY ONLINE/OFFLINE RECORDS.
PLEASE DEPUTE ONLY EXPERIENCED AND TECHNICAL MANPOWER.
PLEASE STRICTLY FOLLOW THE CONDITIONS OF THE LICENSE AND RELEVENT PROVISIONS OF THE SAID RULES.
PLEASE FOLLOW THE CONDITIONS /GUIDELINES OF DISTRICT AUTHORITY/NGT GUIDELINES/OTHER STATUTES.
PLEASE KEEP THE PREMISES AND SURROUNDINGS ABSOLUTELY NEAT AND CLEAN.
PLEASE DISPLAY SAFETY INSTRUCTIONS AT SUITABLE PLACES IN SUITABLE LANGUAGES.

भवदीय /Yours faithfully,

((अजय सिंह)
(Ajai Singh))
संयुक्त मुख्य विस्फोटक नियंत्रक
Jt. Chief Controller of Explosives
कोलकाता (प.बं.)/Kolkata

Copy forwarded to :-
1. The District Magistrate, BUXAR(Bihar) with reference to his NOC No XV-01-2024// P/BI/BUX/P522050/4(N6707) Dated 18/12/2024
2. The Controller of Explosives, Patna. A Copy of the licence along with approved plan is enclosed.

Jt. Chief Controller of Explosives
Kolkata

(अधिक जानकारी जैसे आवेदन की स्थिति, शुल्क तथा अन्य विवरण के लिए हमारी वेबसाइट http://peso.gov.in देखें)
(For more information regarding status,fees and other details please visit our website http://peso.gov.in)

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Reason: Licence No. : P/EC/BI/15/1910
Location: East Circle office [P522050]
Date: 24-12-2024 16:36:34 PM

प्ररूप XV
(प्रथम अनुसूची का अनुच्छेद 6 देखिए)
FORM XV
(see Article 6 of the First Schedule)

अधिष्ठापनों में पेट्रोलियम के आयात और भंडारकरण के लिए अनुज्ञप्ति
LICENCE TO IMPORT AND STORE PETROLEUM IN AN INSTALLATION

अनुज्ञप्ति सं. (Licence No.) : **P/EC/BI/15/1910(P522050)**

फीस रूपए (Fee Rs.) **50000/-** per year

M/s. SJVN Thermal (P) Ltd., Buxar Thermal power project (2x660)MW, Chausa, Buxar, Chausa, District: BUXAR, State: Bihar, PIN: 802114 को केवल इसमें यथा विनिर्दिष्टु वर्ग और मात्राओं में पेट्रोलियम **6000.00 KL** आयात करने के लिए और उसका, नीचे वर्णित और अनुमोदित नक्शा संख्या **P/EC/BI/15/1910(P522050)** तारीख **24/12/2024** जो कि इससे उपाबद्ध हैं, में दिखाए गए स्थान पर भण्डारकरण के लिए पेट्रोलियम अधिनियम, 1934 के उपबंधों या उसके अधीन बनाए गए नियमों तथा इस अनुज्ञप्ति की अतिरिक्त शर्तों के अधीन रहते हुए, यह अनुज्ञप्ति अनुदत्त की जाती हैं ।

Licence is hereby granted to **M/s. SJVN Thermal (P) Ltd., Buxar Thermal power project (2x660)MW, Chausa, Buxar, Chausa, District: BUXAR, State: Bihar, PIN: 802114** valid only for the importation and storage of **6000.00 KL** Petroleum of the class and quantities as herein specified and storage thereof in the place described below and shown on the approved plan No **P/EC/BI/15/1910(P522050)** dated **24/12/2024** attached hereto subject to the provisions of the Petroleum Act, 1934 and the rule made thereunder and to the further conditions of this Licence.

यह अनुज्ञप्ति 31st day of December **2028** तक प्रवृत रहेगी ।
The Licence shall remain in force till the 31st day of December **2028**

पेट्रोलियम का विवरण /Description of Petroleum	अनुज्ञप्त मात्रा (किलोलीटरों में) /Quantity licenced in KL
वर्ग क प्रपुंज पेट्रोलियम /Petroleum Class A in bulk	**NIL**
वर्ग क प्रपुंज पेट्रोलियम से भिन्न /Petroleum Class A, otherwise than in bulk	**NIL**
वर्ग ख प्रपुंज पेट्रोलियम /Petroleum Class B in bulk	**NIL**
वर्ग ख प्रपुंज पेट्रोलियम से भिन्न /Petroleum Class B, otherwise than in bulk	**NIL**
वर्ग ग प्रपुंज पेट्रोलियम /Petroleum Class C in bulk	**6000.00 KL**
वर्ग ग प्रपुंज पेट्रोलियम से भिन्न /Petroleum Class C,otherwise than in bulk	**NIL**
कुल क्षमता /Total Capacity	**6000.00 KL**

December 24, 2024

Jt. Chief Controller of Explosives
EC, Kolkata

अनुज्ञप्त परिसरों का विवरण और अवस्थान
DESCRIPTION AND LOCATION OF THE LICENSED PREMISES

अनुज्ञप्त परिसर जिसकी विन्यास सीमाएं अन्य विशिष्टयां संलग्न अनुमोदित नक्शों में दिखाई गई हैं **Khasra No: 433-434, , Village-Sikraul, , Khorampur Thana No.- 42,, (WITHIN FACTORY PREMISES), Sikraul, Chausa, Taluka: Buxar, District: BUXAR, State: Bihar, PIN: 802114** स्थान पर अवस्थित है तथा उसमें निम्नलिखित **2 Above Ground tank(s) for CLASS C (LDO) WITH CONNECTED FACILITIES FOR OWN USE. IN BOILER, FIRE FIGHTING FACILITIES AS PER RULE-117 OF PR-2002(AS AMENDED) , LEL, AND OVERHEAT PROTECTION TO TANK MUST BE PROVIDED. ONLY TRAINED AND EXPERIENCED MANPOWER WILL BE USED. ALL OTHER TANK (DRAIN WATER TANK , SUMP etc BELOW 5KL).** सम्मिलित हैं ।

The licensed premises, the layout , boundaries and other particulars of which are shown in the attached approved plan are situated at **Khasra No: 433-434, , Village-Sikraul, , Khorampur Thana No.- 42,, (WITHIN FACTORY PREMISES), Sikraul, Chausa, Taluka: Buxar, District: BUXAR, State: Bihar, PIN: 802114** and consists of **2 Above Ground tank(s) for CLASS C (LDO) WITH CONNECTED FACILITIES FOR OWN USE. IN BOILER, FIRE FIGHTING FACILITIES AS PER RULE-117 OF PR-2002(AS AMENDED) , LEL, AND OVERHEAT PROTECTION TO TANK MUST BE PROVIDED. ONLY TRAINED AND EXPERIENCED MANPOWER WILL BE USED. ALL OTHER TANK (DRAIN WATER TANK , SUMP etc BELOW 5KL).** together with connected facilities.

Note:-This is system generated document does not require signature.

Digitally signed by AJAI SINGH
Reason: Licence No. P/EC/BI/15/1910
Location: East Circle office [P522050]
Date: 24-12-2024 18:37:00 PM

अनुज्ञप्ति संख्या-(Licence No.) P/EC/BI/15/1910 (P522050)

नवीनीकरण के पृष्ठांकन के लिए स्थान
SPACE FOR ENDORSEMENT OF RENEWALS

	नवीकरण की तारीख Date of Renewal	समाप्ति की तारीख Date of Expiry of license	अनुज्ञापन प्राधिकारी के हस्ताक्षर और स्टाम्प Signature and office stamp of the licencing authority.
पेट्रोलियम अधिनियम, १९३४ के उपबन्धों या उनके अधीन बनाए गए नियमों या इस अनुज्ञप्ति की शर्तों का उल्लंघन न होने की दशा में यह अनुज्ञप्ति फ़िस में बिना किसी छूट के दस वर्ष तक नवीकृत की जा सकेगी। This licence shall be renewable without any concession in fee for ten years in the absence of contravention of any provisions of the Petroleum Act, 1934 or of the rules framed thereunder or of any of the conditions of this licence.			

यदि अनुज्ञप्ति परिसर इसमें उपाबद्ध विवरण और शर्तों के अनुरुप नहीं पाए जाते है और जिन नियमों और शर्तों के अधीन यह अनुज्ञप्ति मंजूर की गई है उनमे से किसी का उल्लंघन होने की दशा में यह अनुज्ञप्ति रद्द की जा सकती है और अनुज्ञप्तिधारी प्रथम अपराध के लिए साधारण कारावास से, जो एक मास तक हो सकता है, या जुर्माने से, जो एक हजार रुपये तक हो सकता है, या दोनों से, और प्रत्येक पश्चातवर्ती अपराध के लिए साधारण कारावास से जो तीन मास तक हो सकता है, या जुर्माने से, जो पांच हजार रुपये तक हो सकता है, या दोनों से, दण्डनीय होगा।

This licence is liable to be cancelled if the licensed premises are not found conforming to the description given on the approved plan attached hereto and contravention of any of the rules and conditions under which this licence is granted and the holder of this licence is also punishable for the first offence with simple imprisonment which may be extend to one month, or with fine which may extend to one thousand rupees, or with both and for every subsequent offence with simple imprisonment which may extend to three months, or with fine which may extend to five thousand rupees or with both.

Note:-This is system generated document does not require signature.

Digitally signed by AJAI SINGH
Reason: Licence No. : P/EC/BI/15/1910
Location: East Circle office [P522050]
Date: 24-12-2024 16:37:48 PM

Appendix-16

EMERGENCY PREPAREDNESS PLAN

OF

SJVN Thermal (P) Ltd., BUXAR

Prepared

By

NATIONAL SAFETY COUNCIL

98-A, Sector 15, Institutional Area,
CBD Belapur, Navi Mumbai-400 614
Tel. 022-27579924/5/6/7, Fax: 022-27577351,
Email: safetyaudit@nsc.org.in, Website: www.nsc.org.in

Approval and Implementation
of
EMERGENCY PREPAREDNESS PLAN
For

SJVN Thermal (P) Ltd., BUXAR

Prepared

By

NATIONAL SAFETY COUNCIL

This emergency preparedness plan is here by approved. The plan is effective immediately after approval.

Signature with date 01/10/21
Sh. Sanjeev Sood **Chief Executive Officer (CEO)** **SJVN Thermal (P) Ltd., BUXAR**

CONTENTS

1.0 GENERAL

1.1 Introduction

On request from the management of SJVN THERMAL (P). LTD. Buxar, Bihar; the National Safety Council of India (NSCI), Mumbai organized site visit by their experts for planning and preparation of the 'Emergency Preparedness Plan' (EPP).

Power generating Industries are Listed as 'Hazardous Industry' under the first schedule (Section 2cb) of the Factories Act 1948, listing the 29 industries involved in hazardous processes and that safe planning and operation of facilities is highly important in order to prevent accidents involving hazardous substances and hazardous installations. And as the Plant is under construction phase the BOCW Act and Rules is applicable to this site and as per Rule 36 of the BOCW Central Rules, 1998 the emergency action plan is to be made.

The Emergency Preparedness Plan (EPP) prepared in compliance with the statutes will help management to start disseminating information to every person at site about the relevant provisions, conduct mock drills and continue this exercise routinely thereafter at least twice a year. The whole purpose of plant management is to put emergency planning activities/programs into place as to localize any accident that may occur and, if possible, contain them and thereby minimize their harmful effects on health of persons, environment and property.

1.2 Legal Obligation

The preparation of Emergency Preparedness Plan with detailed Emergency Control Measures and the revision of the same whenever any change in process/management, is the legal responsibility of the occupier of the factory as per section 41-B (4) of the Factories Act 1948, rule 36 of The BOCW central Rules, 1998 and Central Electricity Authority safety regulation 2010/11 regulation 9 and Disaster Management Act 2005.

As the plant is under construction stage and as required under BOCW Act, 1996 and BOCW central Rules, 1998; the emergency action plan is to be prepared by the occupier of the factory for managing and mitigation of emergencies.

Definition & Scope

An emergency has been defined by the Ministry of Labor, Government of India as an unplanned event relating, in particular from fire, explosion or toxic releases. This occurrence may be termed a major incidence if it leads to serious dangers to life, property or environment. It may result from uncontrolled development like plant failure or human error in course of an industrial activity and involve release of hazardous substances in quantities above permitted threshold under the legislations.

According to OECD (Organization for Economic Cooperation & Development) guiding principles addressing the range of issues relating to:

i. Preventing the occurrence of incidents;
ii. preparing for accident mitigation;
iii. responding to minimize adverse effects and
iv. follow up for initial clean up, reporting and investigation, the prerequisite for effective emergency planning is the identification of hazardous installations located on site i.e., fixed installations where hazardous substances are produced, processed, handled, stored or disposed of.

A formal written Emergency Preparedness Plan is prepared on the basis of step-by-step identification of principal accident potentials at the installation together with their risk potential, describing how such accidents and their consequences should be handled either on-site or off-site. Emergency Preparedness Plan should include details of appropriate technical and organizational procedures that are appropriate to minimize incidents that could lead to losses. It is regarded as an essential element of any major hazard control.

The structure of the Emergency Preparedness Plan is based on the BOCW Act and Central rules.

The Plan has been prepared in accordance with the existing activities and facilities available at the site required for handling emergencies. The risks envisaged are considered on the basis of the past experiences.

1.3 Objective of the Emergency Preparedness Plan

The objective of preparation of plan is to develop a state of readiness for prompt and orderly response to an emergency and if possible, eliminate them or minimize the harmful effects of an emergency on people, property and the environment. The Emergency Preparedness Plan is prepared to:

a. Assess the size & nature of emergency and the relative likelihood of their occurrence.
b. Have readily available a high order of preparedness (equipment /personnel /Outside help) according to the level of risk to prevent the emergency turning into a disaster
c. Ensure orderly and timely decision making for emergency response, effective rescue operation and treatment of casualties
d. Provide emergency management organization with clear guidelines of authority to act with confidence
e. Bring back the normal situation in the least possible time.
f. Ensure that no panic is created among general public and no exploitation or exaggeration of the situation is done by any agency.

This Emergency Preparedness Plan is for quick relief and rescue operations without delay so as to minimize casualties, prevent injuries and minimize property damage and losses.

1.4 Scope of the Plan

The SJVN THERMAL (P). LTD., of SJVN Limited, Buxar, Bihar management takes the required care for preventing accidents through good design, latest equipment, modern project management techniques, safe operation & maintenance and safety practices etc. This reduces the risks of an accident, but cannot eliminate it all together. An essential part of hazard control by plant management is therefore concerned with mitigating the effects of a major accident, assessing the consequence of such accidents and deciding on the emergency procedures that would be implemented in the event of an emergency inside the plant and in the vicinity of the plant or area affected by the emergency of the plant. This emergency preparedness plan can provide a pathway to handle such situation and can save precious lives and properties which are associated to and owned by STPL.

This Emergency Preparedness Plan covers the following type of emergencies –

a. Fire, explosion, structure failure, or any other type of emergency due to plant construction activities and other associated works.
b. Natural calamities such as flood, earthquake, storm etc.
c. Man-made emergencies: such as bomb threat, food/water poisoning, air raid etc.
d. Pandemic/Epidemic like COVID-19

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2.0 ABOUT THE FACTORY

❖ Brief about SJVN Limited and Buxar Thermal Power Project, Buxar, Bihar

Introduction about SJVN Limited:

SJVN Limited, a Mini-Ratna: Category-I and Schedule –'A' CPSE under administrative control of Ministry of Power, Government of India, was incorporated on May 24, 1988 as a joint venture of Government of India (GOI) and the Government of Himachal Pradesh (GOHP). SJVN is now a listed Company having stakeholders pattern of 59.92% with Government of India, 26.85 % with Government of Himachal Pradesh (GOHP) and rest 13.23% with Public. The present paid up capital and authorized capital of SJVN is Rs. 7000 crores. The present Net worth is Rs. 11,759.31 crore (31.03.2020)

Business:

After its incorporation, SJVN commenced its journey by constructing and operating, India's largest Hydro Power Station i.e. 1500 MW Nathpa Jhakri Hydro Power Station. This power station in Himachal Pradesh was Commissioned in the financial year 2003-04, since then SJVN has successfully commissioned four more projects in different states, which include 412 MW Rampur Hydro Power Station in Himachal Pradesh, 47.6 MW Khirvire Wind Power Project in Maharashtra, 5.6 MW Charanka Solar Power Plant in Gujarat, 50 MW Sadia Wind Power project, one solar in Gujarat and 1.31 MW Grid Connected Solar Power station (NJHPS). The current installed capacity of SJVN is 2016.51 MW (comprising of 1912 MW Hydro + 97.6 MW wind power + 6.91 MW Solar Power) besides one transmission line of 86 KM length.

Buxar Thermal Power Project 1320 MW brief:

Government of Bihar has allotted 1320 MW (660 X 2) Buxar Thermal Power Project to SJVN which is being executed through its wholly owned subsidiary company namely SJVN Thermal (P). Limited. The project is located in Chausa Block of Buxar district. Foundation stone of the project was laid down by Sh. Narendra Modi, Honorable Prime Minister of India on 9th March, 2019. The project cost at January 2018 price level is Rs. 10,439 corers. EPC contract for the project was awarded to L&T Power limited in June 2019. As per the power purchase agreement with Government of Bihar, 85 % of the total power generated will be provided to the state of Bihar and the balance 15 % will be sold to the other power purchases at the Bus Bar rate, as per allocation of Govt. of India. The first unit of the project is scheduled to be commissioned in June 2023 and the second unit in October 2023.

Salient Features of the project: -

Capacity	1320 MW
Technology	Super Critical
Annual Power Generation	9828.72 MU
Plant Load Factor	85%
Auxiliary power Reg.	5.75%
Seismic Zone	IV

Coal Requirement	4.91 MMT Per Annum
Coal grade	G-9 to G-14
Plant Heat Rate	2248 Kcal/Kwh
Water Requirement	32.5 Cusec
Chimney	One number of 275 m Height (with FGD)
Cooling Tower	Two numbers 82600 Cubic meter/hr. Capacity (induced draft cooling tower)
Turbines	Single reheat condensing type
Generator Voltage	20 kV
Transformers	6 numbers single phase plus one number standby
Voltage Step Up	20 kV to 400 kV

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3. EMERGENCY ORGANISATION (MANAGEMENT AND RESPONSIBILITIES)

The Emergency Preparedness Plan takes into account the transition from normal operations to emergency operations and the delegation of authority from operation personnel to emergency response personnel. For this purpose, it identifies an emergency response organisation with appropriate lines of authority and the way response management would come effectively into action. It also identifies the position, responsibilities and reporting relationships of each responder.

3.1 Concept of Emergency Response Operation

- In an emergency the guidelines and information must be communicated quickly and accurately throughout the factory. The purpose is to establish an effective emergency communication network and a procedure for prompt notification to individuals and agencies involved in an emergency response.

- It must identify means for round the clock notification of first responders and officials who can provide direction and control to the response efforts and who can authorize evacuation. To prevent the system breakdown, an "alternate" person should be designated for each key position of designated responsibility.

- The notification procedure may include flow-charts and checklists indicating who should be involved, who has the responsibility to notify these individuals, how the notification is accomplished and the use of "fan out" (a call to one person/agency who in turn calls one or more key individuals during an emergency). These telephone numbers and checklists may be posted in critical areas.

- The Emergency Response Organisation is deployed for ready use during the construction activities being carried out. Therefore, the responsibility of coordinating the emergency response action lies with the main contractor RCM (Resident Construction Manager) and respective key personnel of SJVN THERMAL (P). LTD.

3.2 Key functions of Emergency Organisation

Command and control of an emergency condition encompasses the key management functions necessary to ensure the health and safety of employees, as well as of the public living in the vicinity. In addition, the implementation of an Emergency Response Plan relies on a number of response functions, which deal with different aspects of emergency, the most important ones being:

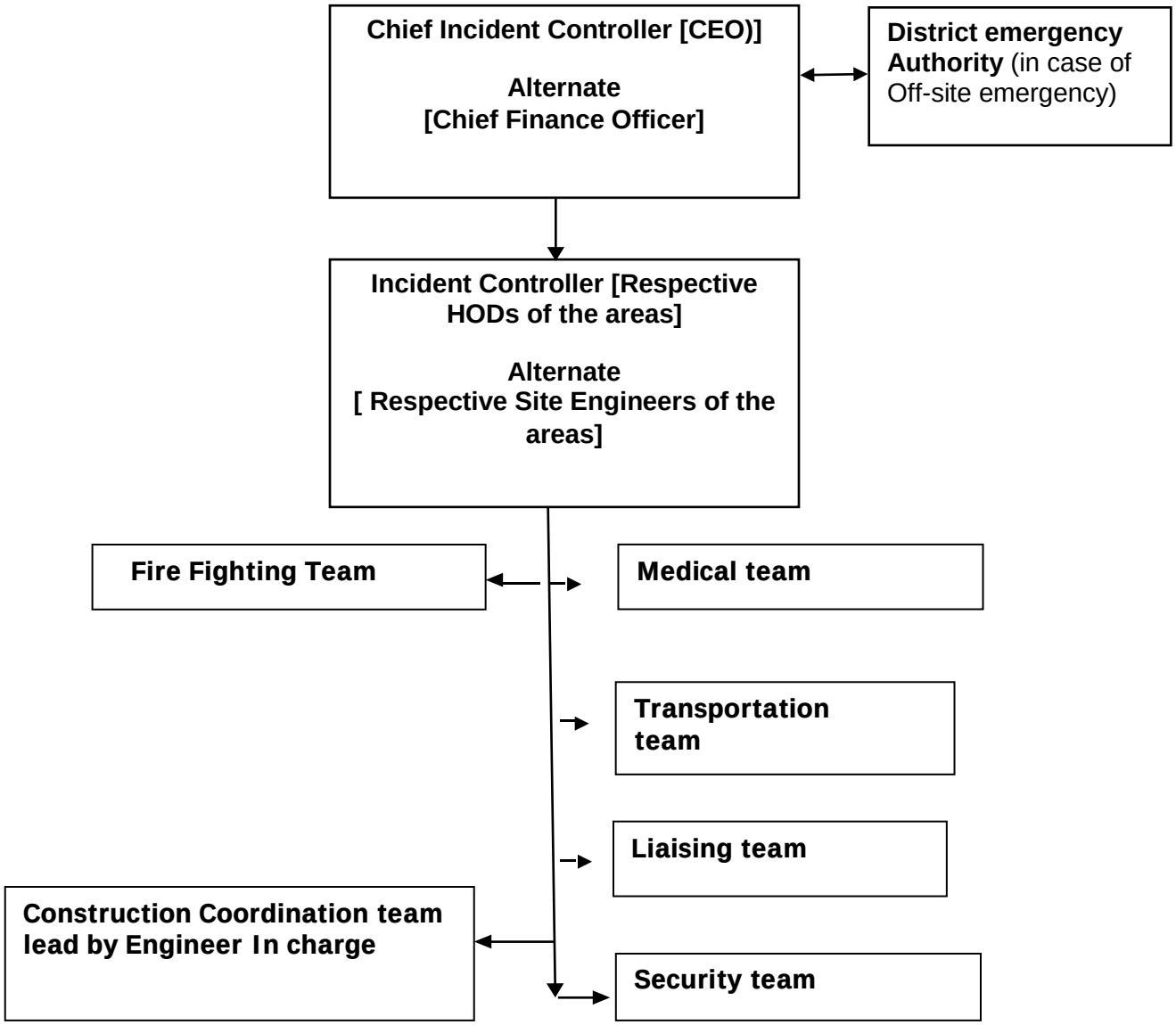
- Communication and Co-ordination
- Fire and Rescue (Emergency Mitigation)
- Main Contractor Team at Incident Site for control and mitigation
- Medical Services
- Security services
- Liaison with external agencies

The SJVN THERMAL (P). LIMITED, Buxar is headed by CEO (Chief Executive Officer), who has been empowered with overall responsibility, and is identified as Chief Incident Controller (CIC) in case of onsite emergency. All technical areas like construction activities and maintenance are looked after by HoDs.

For smooth functioning of emergency organisation Chief Finance Officer (CFO) is assigned as alternate Chief Incident Controller and would always be in Emergency Control Centre (ECC) during emergency. Other HoDs would help him in mitigating the emergency.

EMERGENCY MANAGEMENT ORGANISATION

EMERGENCY ORGANIZATION CHART

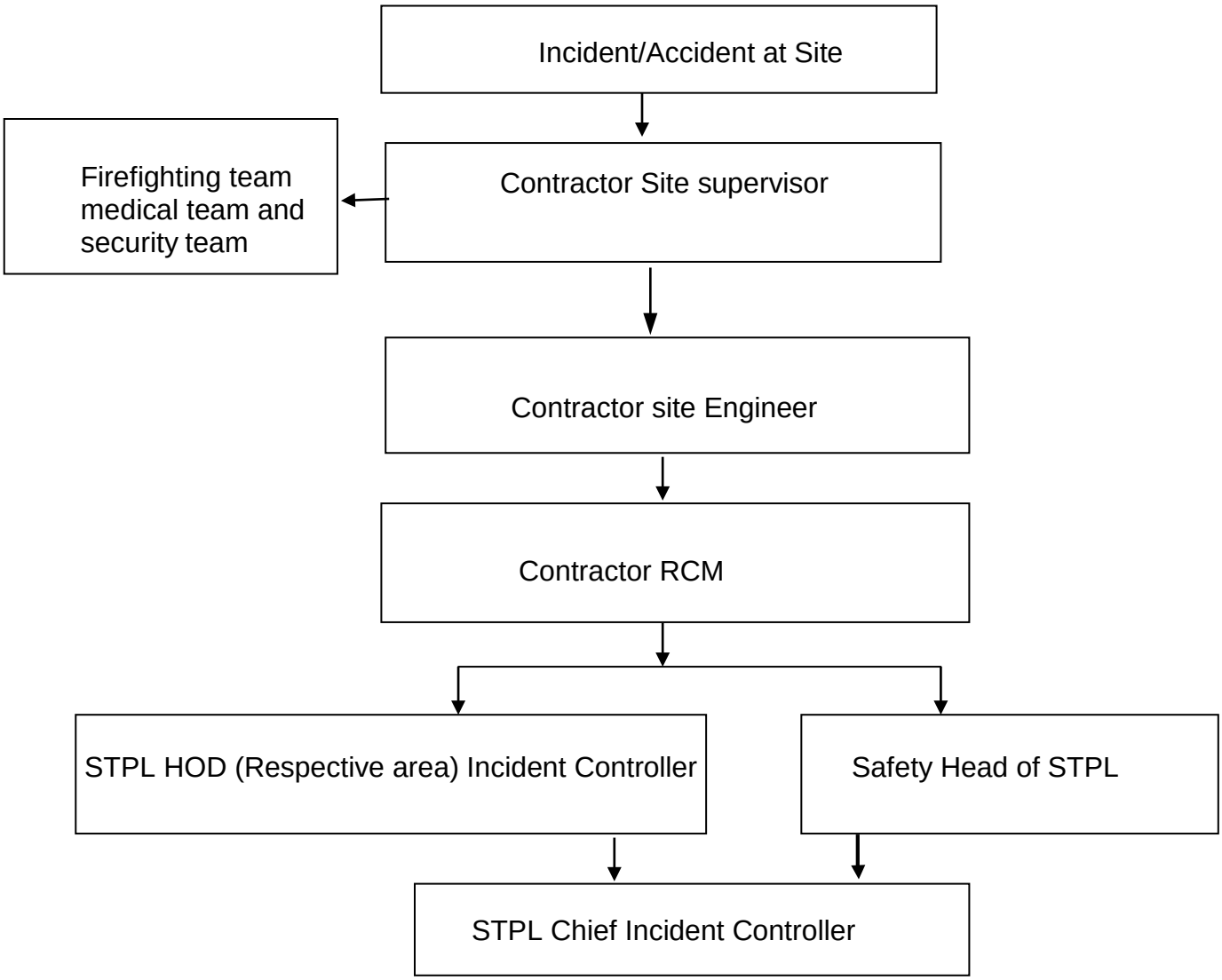


3.3 Response Level Matrix during Emergency

Following persons will act as per their responsibility to combat and control the emergency. Their position during normal operation of the construction site and emergency are summarised below:

In accordance with the organisation structure, the personnel in-charge of each of the above functions responds to the Chief Incident Controller (CIC), who is the overall in- charge of each function is staffed with a team, the size and composition of the team depends on the task required to be carried out during the emergency and the size of facility. These teams then operate according to the instructions provided by the CIC and within the purview of pre-written guidelines to accomplish their task. Some of these teams mainly operate from the Emergency Control Centre (ECC) and others would operate in the field or in other part of the SJVN THERMAL (P). LTD., Buxar.

Emergency Communication flow chart:



3.4 Functions of Designated Persons during Emergency

a) Chief Incident Controller (CIC)

The CEO, SJVN THERMAL (P). LIMITED, Buxar; assumes the role of CIC. He has an overall responsibility for directing emergency control operations and calling outside help. The alternate would be as per the response level matrix indicated above. He will then proceed to the Emergency Control Centre and take overall control of the emergency and provide guidance in critical decision making. Specific responsibilities/duties of the CIC are as under:

i. Continually review and assess existing and possible developments to determine the most probable course of events and effective methods to deal with them.
ii. Direct a safe evacuation from incident site, if required, in consultation with the respective HoDs.
iii. Ensure that casualties are receiving adequate attention.
iv. Decide in consultation with Incident Controller and key persons whether an off-site emergency is likely to take place. If an off-site emergency is imminent then arrange to or instruct the concern, under guidance of District Emergency Authority, as to–

- Alert, evacuate the public living in the vicinity of the Plant and, if necessary, advise their evacuation.
- Call the outside emergency services
- Inform district emergency authorities
- Coordinate with district emergency authorities to mitigate the consequences outside the factory
- Coordinate with district emergency authorities for evacuation, shelter, rescue and rehabilitation of general public in the vicinity of affected area.

v. Inform company senior officials
vi. Declare cessation/termination of emergency after having full control on emergency event
vii. Rehabilitate the affected area after the emergency is over.
viii. In case of Strike by the Plant Personnel, identify critical areas of the Plant in advance. If emergency occurs during the strike, following arrangements are required to be made in advance to meet the crisis:
   a. Keep the list of Technical and Administrative Records needed to continue the construction and other activities in an emergency.
   b. Keep the record of Personnel (Non-executive) likely to be available during the strike and keep the same in safe custody.
   c. Identify alternate arrangements for meeting any emergency in the factory i.e. by mutual aid with other factories, etc.

b) Incident Controller

The respective HoDs will be Incident Controller (IC) and would handle the emergency from the site.

Alternate IC will be respective site engineers.

For handling emergencies after office working hours, during weekends and holidays, the respective site engineers will be the ICs until the arrival of the HoDs.

The responsibilities of the IC are enumerated below:

After getting the emergency call from site, rush to the emergency site to assess the situation and look into the following:

i. Check whether other responders have arrived at site
ii. Set up communication network with the Emergency Control Centre, using mobile and other means of communication like walkie talkie sets.
iii. Take stock of the situation at site and if found uncontrollable inform CIC. After taking the stock of the situation, decide in consultation with CIC for declaring the emergency as an on-site emergency and inform to the Fire/security Control Room for sounding the emergency siren.
iv. Review if construction activities are required to continue for control of emergency and inform CIC and if required stops the construction activities in consultation with CIC.
v. If required evacuate the persons from affected areas by sending them to the assembly points.
vi. Guide response teams i.e., fire & rescue, first aid/medical and other personnel to take necessary actions.
vii. Interact with CIC and brief him on possible effects on areas inside and outside the premises to initiate Off- Site Emergency Response Plan, if any.
viii. Remain in touch with CIC and inform him about the situation & actions being taken and seek his advice for the critical decisions.
ix. Ensure that the essential personnel have been called in at site
x. Direct all operations within the affected area with following priorities –

- Secure safety of personnel, giving priority to saving life and preventing further injury
- Minimise damage to property and the environment
- Minimise loss of material
- Advice and inform as required by the emergency responders i.e., Fire and Security personnel or emergency services.
- Preserve evidences, which would be necessary for subsequent investigation to find out the immediate and underlying causes of the emergency and for concluding preventive measures.

c) Liaison Officer

HoD HR would be the liaison officer at SJVN THERMAL (P). LTD., Buxar. On hearing the emergency siren or getting the information about emergency, he shall immediately come to ECC and provide necessary instructions to his team members. His Duties are:

a. To arrange to send one security person to the assembly points for counting the persons assembled at the assembly points through time office for SJVN employees

however, contractor designated person will count the contract manpower assembled at assembly point.

b. ensure that casualties receive adequate attention for immediate medical treatment and arrange additional medical help if so required
c. Arrange to inform the relatives of the injured persons after taking permission from CIC.
d. Arrange to keep ready alternative arrangements for transport to carry out the necessary work related to emergency.
e. In case emergency prolongs, arrange relief for the personnel who are engaged in controlling emergency and organize refreshment or other canteen facilities.

d) Materials Coordinator

HoD MMG (Material Management Group) would be the Materials Coordinator for SJVN THERMAL (P). LTD., Buxar. On hearing the emergency siren or getting the information about emergency, he shall immediately rush to ECC and provide necessary instructions to his team members. His Duties are:

i. Get the stores opened for requirement of the Firefighting/safety and other materials, which may be required during emergency.
ii. Assess the situation in consultation with CIC and IC for any material requirement help at the affected site.
iii. Ensure free movement of trucks of bulk materials, if required.

e) Medical Coordinator

Chief Medical Officer (CMO) would be the medical coordinator of SJVN THERMAL (P). LTD., Buxar however the medical facilities of Contractor will be used in case of emergency at construction site. On hearing the emergency siren or getting the information about emergency, he shall immediately perform following duties:

i. Rush to the CIC on getting information about emergency by siren or telephone.
ii. Depute First aiders for spot first aid.
iii. Remain in touch with CIC for any help required.
iv. if required, he shall send the seriously injured persons to the pre-identified hospitals

f) Fire & Rescue Coordinator

HoD Safety/CISF would be the Fire & Rescue Coordinator for SJVN THERMAL (P). LTD., Buxar. On getting message on telephone or by other means about emergency, he shall immediately rush to the affected site with his team and work under the command of Incident Controller.

i. The Fire Team members shall immediately start fire-fighting operations.
ii. The Rescue Team members shall search for any missing person/casualty and carry out rescue operation and brought to the Assembly point/ first aid center, where ambulance is to be available.
iii. Ask additional help for cordoning off the area and advise fire personnel for rescue/firefighting, if required
iv. Organize and supervise fire-fighting operations if called for.

v. Provide necessary respiratory equipment for emergency use.
vi. Advise IC to arrange additional help from nearby, if required, and
vii. Give safety precautions to the personnel at rescue work.

g) Security Coordinator

HoD HR/ CISF would be the Security Coordinator for SJVN THERMAL (P). LTD., Buxar. On getting message on telephone or by other means about emergency, he shall immediately rush to the main security gate and arrange as follows:

i. To call additional security personnel if required
ii. Arrange to close all the Security gates except Main Gate for any kind of unauthorized entry in the plant.
iii. Guide the Outside helping agencies such as Fire Brigade, ambulances to the emergency site
iv. Arrange for traffic and mob control.
v. Arrange to take the transporter trucks/vehicles outside the main gate.

h) Engineering Coordinator

Respective HoD would be Engineering Coordinator for SJVN THERMAL (P). LTD., Buxar. On getting message on telephone or by other means about emergency, he shall immediately rush to the incident site and arrange as follows:

i. Arrange to send the personnel to the incident site to ensure the required equipments are in place and working.
ii. To arrange electrical shut down of the affected area after getting information Incident Controller.
iii. Make arrangements for necessary tools, forklift and any other machineries etc. for carrying out salvage operation to save the unaffected material from the affected site.
iv. Make arrangements for emergency illumination/ lighting in case of power failure during nighttime.
v. Arrange all available resources for efficient housekeeping and cleanliness after the emergency is over.

i) Transport In-Charge

HoD (Workshop & Transport) will be transport in-charge.

On hearing the emergency siren or getting the information about emergency he shall immediately rush to the ECC for providing vehicles for emergency duties and shifting casualties to nearby hospital.

3.5 OTHER FUNCTIONS

a) ECC Communicator

On getting the information about the Emergency from incident controller, he shall inform immediately all the key personnel about the Incident individually on telephones and establish communication between ECC and emergency site.

b) Person Who First Notices Emergency

The initial response by individual to an emergency situation will make the difference, as every second counts. If anybody notices the fire or any other emergency they should act as follows:

i. Inform immediately about the fire to the concerned site supervisor. Also make the announcement about the fire on Megaphone / PA system, if available.
ii. Try to extinguish the fire with the help of fire extinguisher/ fire hydrant system. Take the help from others if required.
iii. If the fire is extinguished at its initial stage inform site supervisor.

c) Other Persons in case of emergency at the site premises

All other persons in vicinity will:

a. Rush to the emergency assembly point and wait for further instructions from their superior if they belong to the affected section/area.
b. Continue their normal/routine work if they belong to the non-affected areas.

d) Visitors

All visitors inside the plant will return back immediately to the main gate in case of emergency situation and treat their gate pass as cancelled. They will wait at the main gate till the emergency situation is cleared off.

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4.0 EMERGENCY RESPONSE ARRANGEMENTS & FACILITIES

4.1 Emergency Control Centre

The Emergency Control Centre (ECC) is a place from where the Chief Incident Controller (CIC) would provide direction/guidance and coordinate various agencies/activities to effectively handle the emergency situation.

CEO office will be the ECC and alternate ECC will be Site Office conference room. CIC will proceed to that ECC and take overall control of the emergency. All the key personnel (except IC and the persons he would need) would assemble at ECC.

IC will conduct all operations to combat & control the emergency. He will guide fire & rescue, medical & other teams.

Equipment and Facilities Available In ECC

- Internal and external telephone lines separately
- A plot plan showing the location of
    - Areas where there is large inventory of combustible and toxic material
    - Fire hydrant system
    - Location of assembly points
    - Location of nearest hospitals/health Centre
    - Sources of Safety Equipment
    - Stock of firefighting equipment
    - Habitation within 2-kilometer distance
- Nominal roll call of employees (to be provided by the Liaison Officer during emergency.
- List of key personnel with their addresses, telephone / mobile numbers.
- List of outside emergency control agencies with their contact numbers.
- Stationary items
- First aid box

Manning of ECC during Emergency

- Chief Incident Controller and his alternate
- Assistant to CIC
- Telephone Attendant
- Key Personnel as per the Emergency Organogram.

4.2 Assembly Points

All the persons of the emergency area, those are not part of immediate response teams, would evacuate their work area, if directed by respective IC, after declaration of emergency and report at the designated Assembly Point (AP). The decision to evacuate the work area will be taken by CIC after getting feedback from the Incident Controller. Evacuating visitors and handicapped persons would be the responsibility of the respective IC. The routes to be followed to reach the "Assembly Point" shall be known

as “Escape Routes” and are predetermined, kept free from obstructions and prominently marked on the plant layout drawing.

4.3 Assembly point Locations

There are Assembly Points in the plant as given below.

Assembly Point	Location	Who should assemble
1.	L&T Power Main Office	Workers of L & T, canteen staff, and other contract workers working in office
2.	Boiler area	Assigned Contract workers working plus supervisors of contractor, visitors of boiler area if any and company supervisors
3.	Chimney area	Assigned Contract workers working plus supervisors of contractor, visitors of Chimney area if any and company supervisors
4.	CW Fabrication yard	Assigned Contract workers working plus supervisors of contractor, visitors of CW fabrication yard if any and company Supervisors
5.	CHP & Wagon Tippler area	Assigned Contract workers working plus supervisors of contractor, visitors of CHP & Wagon Trippler area if any and company supervisors
6.	IDCT office area.	Assigned Contract workers, visitors in that area etc.
7.	Batching Plant area.	Assigned Contract workers working plus supervisors of contractor, visitors at batching plant, vehicle and heavy machine operators if any and company Supervisors

The above Assembly Point in-charges will be decided by the company management (Security Supervisor of that area) and they will act as Emergency Wardens. In case of emergency, they should take the roll call and ensure safety of personnel. If the wind direction for a particular assembly point is not favorable, the concerned assembly point in-charge would have to take on the spot decision for shifting the personnel under their control, to a safer location. In case someone is suspected to have been entrapped in the emergency, they should immediately inform to CIC and IC through personal mobile or use nearest contact point. After “All Clear” siren, all assembly point in-charge will report to ECC with list of roll call.

4.4 Escape Routes

At the outbreak emergency it becomes essential to evacuate the affected personnel from the locations and assist them to assemble in the identified assembly points (AP). In order to carry out the evacuation, escape routes have been identified and designated. These routes have been marked in the SJVN THERMAL (P). LTD., layout drawing.

The following precautions have been ensured:

- Putting up identification boards with glow sign on the entry, exit and turnings of escape routes.
- Keeping routes free from obstructions
- Providing adequate Illumination on roads for movement of emergency services
- Maintaining roads in good order
- Keeping all doors for entry and exit unlocked and un-obstructed in all the departments

4.5 Emergency Siren

- The emergency sirens will be installed at following locations. Depending on the nature of emergency; siren will be sounded for warning people in entire plant. If required more sirens can be installed in selected locations in future. Currently public address megaphone is used at site to warn about emergency.
- Proposed Location of the sirens are below:

Sr.no	Siren	Location	For the area
1.	1)	Batching Plant	Batching plant, main gate area, Time office area
2.	2)	ESP 2	Boiler, Chimney, ESP, Water reservoir area
3.	3)	Coal Handling Area	CHP and Wagon tippler
4.	4)	IDCT 2	IDCT 1 and 2, Fabrication yard office area.

- Sirens will be sounded from respective areas for alerting the workers and general people about the emergency.
- The emergency siren should be operated in the following modes:

a. Declaration Of Emergency: The siren will be operated with a wailing Sound of blowing siren for two minutes for 30 sec on and 15 sec off for three times.

b. All Clear: The siren will be operated with a continuous sound for two minutes. It would be activated only after the clearance from CIC in consultation with the IC.

c. Testing: All the emergency sirens will be tested during mock drill for two minutes.

4.6 Wind Socks

Wind sock will be installed in the site and visible from all sides so as the site people can see the direction of the wind and escape safely in a direction perpendicular to the wind flow.

4.7 Fire Fighting Facilities

First Aid firefighting equipment suitable for emergency is provided and will be maintained. The details are as given below:

Current Fire Fighting arrangement at construction site:

1. CO_2 extinguisher -62 numbers
2. DCP Extinguisher -62 numbers
3. Foam Extinguisher -10 numbers
4. Fire Bucket – 110 numbers

It is available at every strategic location of site, transformer area, main electrical panel, offices, porta cabin and all buildings.

Regular Firefighting classes and drills will be conducted for training of personnel.

4.8 Medical Facilities

- The first aid with required facilities manned round the clock is available at site.
- Stretchers and general first aid materials for dealing with Chemical burns, fire burns etc. will be maintained in the first aid center.
- Breathing apparatus and other emergency medical equipment will be provided and maintained.
- Numbers of persons are selected and trained in first aid so that in every shift at least one first aid personnel with every contractor will be available at site.
- At least one number of First aid box is available with every contractor or work area for treatment of first aid cases if any.
- In case of emergency ambulance will sent to transport the emergency cases to first aid center and if required to nearby hospitals.
- Government hospital or ESI hospital will be approached for emergency help.

Details of facilities in First Aid center

- 24x7 doctor and paramedical staff (01 Doctor and 03 paramedical staff)
- Emergency medicines
- One bed in first-aid center.
- 03 bed facility made available at another porta cabin for covid’19 isolation and can be used in-case of multiple injuries
- Fully equipped Ambulance (02 at site & 01 is at labour camp).

4.9 Communication Facilities

- Employees would be warned by blowing emergency siren / Megaphone.
- Employees will be trained on escaping through specific routes, taking shelter, protecting from fire and other hazards.
- Workers would be provided with information related to fire hazards and first aid measures
- Those who are designated as key personnel and essential employees will be given training on emergency response methodology.

Co-ordination with Local Authorities

- Keeping in view of the nature of emergency as decided and directed by CIC, two levels of coordination are proposed. In the case of an On-Site Emergency, resources within the organization would be mobilized and in the event of extreme emergency help from local authorities would be sought.
- In the event of an emergency developing into an off-site emergency, local authority and District emergency Authority (normally the District Magistrate/Collector) would be informed and Chief Incident Controller will function under the guidance of District Emergency Authority.
- For this purpose, the facilities that are available locally, i.e., medical, transport, personnel, rescue accommodation, voluntary organizations etc. would be mustered.
- Mutual aid in the form of technical personnel, runners, helpers, special protective equipment, transport vehicles, communication facility etc. will be sought, if situation so warrants.

4.10 Mock Drills & Surprise Drills

Emergency preparedness is an important aspect to prepare all employees mentally and physically in planning of an Emergency Management. Mock drills will be initially conducted after informing all to familiarize with the plan and thereafter followed by surprise drills to check the effectiveness. Mock drills will be practiced at frequent intervals, at least once in 6 months:

- To make everyone understand his functions during an emergency and act accordingly;
- To create an awareness among people about their conduct during the emergency as to ensure that emergency is tackled effectively & efficiently;
- To inculcate upon certain moral discipline among employees so that, they
  - Do not get panic during the emergency
  - Do not spread unauthenticated information
  - Do not approach the scene as a spectator and get affected by the situation in the process
  - Do not engage in the communication channels unnecessarily
  - Understand and be attentive to instructions
- All managers and supervisors get to know that their workers are properly directed through carefully planned simulation procedures to take safe position (assembly points) during an emergency situation

4.11 Important Information

Important information such as names and addresses of key personnel, essential employees, outside help, transporters' address, and address of those connected with Site Emergency such as Police, Local Authorities, Fire & Emergency Services, District Emergency Authority will be maintained.

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5.0 SITE RISK EVALUATION

5.1 Hazardous Chemicals / Materials, Inventory and Locations

SN	Hazardous Chemicals / Materials	Locations
1	NIL	NIL

Note- Any Hazardous material is not being used at site at currently. This list will be updated in future.

5.2 Preliminary Hazard Analysis

Few activities in the plant have been identified as hazardous activities. There are inherent hazards associated with these critical jobs. Preliminary hazard analysis (PHA) will be done in respect of some of these critical jobs and their emergency mitigating procedures are described as given below. In the similarly PHA of all the critical jobs are done.

Job Description: Gas Welding & Cutting Operation

Description	Potential Emergency	Emergency Mitigation	Emergency response Procedure
Handling of gas cylinders (Oxygen, & D.A, LPG)	• Foot injury • Hand injury	• Use of appropriate P.P.E. like safety shoes, hand gloves. • Handling should be done through hand trolley or by forklift truck.	In case of emergency, the following measure should be adopted: Try for giving First Aid to the injured person and send him to Hospital**.**
Fixing of gas hose, regulators, cutting torch etc.	Damage to gas hose, regulators, and cutting torch resulting leakage of gas.	• All (Acetylene, Oxygen, LPG) cylinders must be kept in upright position & be secured. • Inspection of all necessary accessories before they are taken in use.	Immediately inform to the -Office stating the nature of emergency. -Inform Department Head, executive Engineer & Emergency coordinator
Cleaning of surface to be cut or welded.	Hand injury while cleaning	Cleaning of surface to be carried out by using wire brush & use of cotton hand gloves to be	First aid to be provided to the injured and he should be shifted to Hospital

		Ensured	
Open the Knob of the cylinders & regulate the gas flow.	• Back fire • Fire & explosion	• Adjust pressure as per requirement of the job/ thickness. • Torch nozzle holes to be cleaned frequently. • Non return valve must be used in D.A. hose to avoid flash back.	In case of fire try to extinguish fire by adopting fire emergency procedure.
Lighting of gas torch & adjust the flame.	Burn injury	• Always keep a bucket of water in nearby area and cool down the cutting torch as & when required. • Never try to get feel at flow using naked hand immediately after the flame in the torch is extinguished as this may lead to reappearance of fire (Due to residual fire) & cause burn injury.	Give first aid and shift victim to Hospital for further treatment.
Start cutting or gas welding	Occupational hazard.	Use mask to avoid occupational injury/ health hazards.	

Job Description: Working ON DG Set

Description	Potential Emergency	Emergency mitigation	Emergency response procedures
Storing and handling of Diesel.	Fire and explosion	• Storage area are duly approved • Provision of bund wall to contain any emergency leakage	• Immediately communicate to the office stating nature of emergency. • Inform the

Description	Potential Emergency	Emergency mitigation	Emergency response Procedures
		from the tank. • Arrangement for cooling diesel tank by spraying water. • Arrangement for bonding & grounding during transfer of diesel. • Adequate firefighting equipment is provided. • "No Smoking" sign are displayed.	Department Head, executive Engineer, Emergency Coordinator • Try to cordon the whole area and if possible, start first aid to the victim by taking them out of danger zone without affecting your own safety. • In case of Fire try to extinguish fire adopting Fire emergency planning procedure mentioned in emergency plan and you are trained in fire fighting • Provide First Aid and Shift victims to Hospital • Communication with local authorities and public. • Evacuate the complete area. • Training to the nearby villagers with respect to the above.

Job Description: Transportation, Handling and Storage of Gas Cylinders

Description	Potential Emergency	Emergency mitigation	Emergency response procedures
Receiving Oxygen LPG and Dissolved acetylene from vendors.	• Leakage or damage of cylinder valve. • Fire • Explosion • Hand or foot Injury while handling cylinders.	• As per Rule 44 of the Gas Cylinder Rules, 2016 for license required for possession of gas cylinders should be checked. • Check cylinders physically for damage before use • While unloading the cylinder drop it softly on the 15-mm thick rubber belt piece or on tyre. • Keep cylinders under shed in a cool place • Handling is done by hand trolley and manually where movement of trolley is restricted. • Statutory clearance has to be obtained if norm of storing fifty O_2 cylinders or fifteen DA cylinders are exceeded • It is necessary to secure the cylinders when they are kept upright by suitable fixing arrangement. • Cylinders are never stacked more than four high if they are kept horizontally.	• In case of an emergency immediately communicate to the --- office stating the nature of emergency. • Inform the Department Head, Executive Engineer, Emergency Coordinator • Try to cordon the whole area and if possible start first aid to the victim by taking them out of danger zone without affecting your own safety. • In case of Fire try to extinguish fire adopting Fire emergency procedure mentioned in emergency plan • Provide First Aid and Shift the victim to Hospital

Description	Potential Emergency	Emergency mitigation	Emergency response Procedures
		• DA Cylinders should be kept or stored away from source of heat. It should be ensured that it is not kept under direct sun light/heat. • Oxygen regulator & fittings should be kept away from all source of contamination such as oil, grease etc. • The recommended practice of lifting cylinders is to use fiber rope slings in lieu of the metal chains. • DA Cylinders must be color coded with maroon and Oxygen with black. • Keep Cylinders away from live electrical wires or electrical apparatus. • Valve protection cap must be maintained in place • Wear. hand gloves & safety shoes while handling cylinders • Before putting cylinders in use examine for the validity of date of statutory test done & marked on the name plate	

5.3 SIGNIFICANT EMERGENCY SITUATIONS AND EVACUATION PROCEDURES

- **Likely Emergencies in the Site**

A. Construction Hazards

a) Work at height
b) Work at confined space
c) Excavation work
d) Welding and cutting
e) Electricity
f) Fire and explosion
g) Machinery related hazards
h) Fall of material
i) Road accidents

a) Work at Height emergency

The working at height at SJVN THERMAL (P). LTD. Buxar may result in fall from height emergency

- Existing control measures

- Work at height permit system is in place
- JSA study for work at height is conducted before issue of work permit
- Trained manpower is being used for conducting work at height
- Height pass test is compulsory for person working at height, only successful persons are allowed to do the job
- Access and platforms are provided for working at height
- Fall protection system is ensured while working at height

- In case of emergency

- Anyone noticing fall from the height will inform site supervisor
- When a fall happens, another worker as a first responder will assess the situation and make contact with the fallen worker, determining his status.
- In the meantime, site supervisor will contact the emergency services.
- Inform concern HODs/safety officer
- Immediately implement the rescue procedure in accordance with the company policy and safety guidelines.
- The rescuer should not endanger himself when carrying out a rescue procedure.
- The fallen person will be retrieved as soon as possible
- Based on the height at which person fallen, the type of rescue equipment will be decided for rescue
- Call ambulance at spot immediately

b) Work at Confined space

The working at confined space at construction site of SJVN THERMAL (P). LTD.

Buxar may result in fall from height emergency; person may unconscious due to oxygen deficiency, fall of materials or tools etc.

- Existing control measures

- Work at Confined space permit system is in place
- JSA study for working at confined space is conducted before issue of work permit
- Tool box talk is carried out before starting work
- Trained manpower is deployed for same
- Access and platforms are provided
- Fall protection system is ensured
- For rescue one person is kept as stand by
- SOP for confined space working is followed
- Portable oxygen meters are ensured for checking oxygen level at confined space -

- In case of emergency

- In case of emergency in confined space, inform site supervisor
- The emergency services will be contacted and the site alerted about the accident.
- Inform to concerned HODs/safety officer
- Immediately implement the rescue procedure as per SOP.
- The rescuer should not endanger himself when carrying out a rescue procedure.
- Call ambulance at spot immediately

c) Excavation work

The excavation work at SJVN THERMAL (P). LTD. Buxar may result in fall in excavated area; material may fall on working personnel, fall of machine or other equipment's etc.

- Existing control measures

- Excavation Work permit system is in place
- JSA study for same is conducted before issue of work permit
- Trained manpower is being used for conducting excavation work
- Access and platforms are provided
- Excavation work is conducted under supervision

- In case of emergency

- Anyone noticing emergency while performing excavation work will inform site supervisor
- The emergency services will be contacted and the site alerted about the accident.
- Inform concern HODs/safety officer
- Immediately implement the rescue procedure in accordance with the SOP.
- Call ambulance at spot if required

d) WELDING AND CUTTING

The welding and cutting works at SJVN THERMAL (P). LTD. Buxar may result in fire and explosion, gas leakage, fall of cylinder while handling, flash back etc.

- Existing control measures

- Hot Work permit system is in place
- JSA study for same is conducted before issue of work permit
- Trained manpower is being used for conducting Hot work
- Hot work will be conducted under supervision
- Flash back arrestors is provided at both ends of hoses
- First aid firefighting facilities is ensured before work at site
- For transportation of gas cylinders use of trolley is compulsory at site
- One person is kept stand by for stoppage of gas supply in case of emergency

- In case of emergency

- Anyone noticing emergency while performing hot work will inform site supervisor
- The emergency services will be contacted and the site alerted about the accident.
- Inform concern HODs/safety officer
- Immediately implement the fire fighting and rescue procedure in accordance with the SOP.
- Call ambulance at spot immediately

e) ELECTRICAL HAZARDS

The electrical works at SJVN THERMAL (P). LTD. Buxar may result in electrical Fire, FLASHOVER, transformer oil fire, electric short circuit, electrocution etc.

- Existing control measures

- Electrical Work permit system is established and practiced
- Trained manpower with CPR training is deployed for carrying out electrical work at site
- Electrical work is conducted under supervision
- Rubber mats is provided at electrical panels and electrical MCC rooms etc.
- First aid firefighting facilities is ensured like sand buckets, fire extinguishers and other required PPEs.
- ELCB of standard rating is provided at all switch boards and electrical panels etc. at site
- At HT lines arc flash suit, and related PPEs is ensured.

- In case of emergency

- Anyone noticing electrical emergency will inform site supervisor
- The emergency services will be contacted and the site alerted about the accident.
- Inform concern HODs/safety officer

- Immediately implement the fire fighting and rescue procedure in accordance with the SOP.
- Call ambulance at spot immediately

f) FIRE AND EXPLOSION

The Fire and explosion at SJVN THERMAL (P). LTD. Buxar may result in burn injuries, fatality, and property damage at site and nearby area

- Existing control measures

- Work permit system is established and practiced at site
- JSA for each type of work is prepared and complied at site before start of work
- Trained manpower is deployed for carrying out various types of work at site
- All types of construction works are carried out under supervision
- First aid firefighting facilities is ensured.

- Procedure for Extinguishing Fire

The following steps should be taken during a Fire Incident:

- As soon as the message is received about fire, Firefighting team shall be diverted to the place of the fire accident site along with a staff member
- Simultaneously plant Emergency Control Center shall be informed by phone
- Fire stations nearby also be informed by phone to be in readiness;
- In the meanwhile, the fire hydrant system shall be operated to obtain maximum pressure and output
- In case live cables are within the reach of fire, power supply shall be made off and the cables shifted
- After extinguishing the fire, the area shall be prepared for re-use.
- IS:2190-1992 for" selection, installation and maintenance of first-aid fire extinguishers – code of practice" is generally followed

- In case of emergency

- Anyone noticing emergency will inform site supervisor
- The emergency services will be contacted and the site alerted about the accident.
- Inform concern HODs/safety officer
- Immediately implement the fire fighting and rescue procedure in accordance with the SOP.
- Call Fire tender and ambulance at spot immediately

g) MACHINERY RELATED HAZARDS

The material handling machineries like Hydras, different types of cranes and heavy earth moving machineries like Poclain, Dozers, Dumpers, trailers etc. at SJVN THERMAL (P). LTD. Buxar may result in injuries to personnel, damage to machineries and nearby areas.

- Existing control measures

- Work permit system is established and practiced
- Trained Drivers and other manpower are deployed for carrying out machine operations
- TPI and fitness certificate of machineries is ensured before use
- Trained driver with valid driving license is ensured for all such heavy machinery.
- Preventive and breakdown maintenance of machineries is ensured.
- Fencing of machinery is ensured to avoid any unsafe condition at site while working.
- All practical steps are taken to prevent the earth moving, lifting and hoisting machinery etc. being operated in dangerous proximity to live overhead power lines.
- Road safety measures is strictly adhered at site
- First aid firefighting facilities is ensured.

- In case of emergency

- Anyone noticing machineries related emergencies will inform site supervisor
- The emergency services will be contacted and the site alerted about the accident.
- Inform concern HODs/safety officer
- Immediately implement the rescue procedure in accordance with the SOP.
- Call ambulance at spot immediately, if required

h) FALL OF MATERIAL

The construction work poses hazard of fall of material at SJVN THERMAL (P). LTD. Buxar may result in body injuries, fatality, damage to equipment and property etc.

- Existing control measures

- Work permit system is followed
- Trained manpower is deployed for carrying out works at site
- Works is carried out under supervision
- Proper access, platforms with railings, toe boards etc. is ensured at site.
- Safety net of required size will be provided at site and it is regularly cleaned.
- Use of PPEs as per work requirement is ensured

- In case of emergency

- Anyone noticing emergency will inform site supervisor
- The emergency services will be contacted and the site alerted about the accident.
- Inform concern HODs/safety officer
- Immediately implement the emergency actions in accordance with the SOP.
- Call ambulance at spot, if required.

i) ROAD ACCIDENTS

The Road accidents at SJVN THERMAL (P). LTD. Buxar may result in body injuries, fatality, damage to property and vehicle, fire etc.

- Existing control measures

- Trained drivers with valid driving license are ensured for all vehicles including transport vehicles.
- Defensive driving and behavior base safety training is imparted to drivers at site
- "No smoking and No intoxication policy" are strictly followed
- Road safety measures is strictly followed by drivers
- Overtaking is strictly prohibited inside the site premises.
- Speed limit is strictly adhered.
- First aid firefighting facilities is ensured.

- In case of emergency

- Anyone noticing road emergency will inform site supervisor
- The emergency services will be contacted and the site alerted about the accident.
- Inform concern HODs/safety officer
- Arrange to barricade the accident site and avoid crowding at accident site.
- Immediately implement the emergency procedure in accordance with the SOP.
- Call ambulance at spot, if required.

B. Natural Calamities Which Can Lead to Emergency

a) Earthquake

The Buxar District falls under the seismic zone III, which is the high-risk area.

Earthquake cannot usually be forecasted and therefore precautions prior to such events are not usually predictable. Apart from some of the counter-measures to be taken in foreseeable cases, emergency recovery plan has been considered by the emergency management team as per the situation and site conditions as follows:

Step	Activity	Action By
Planning & Preparedness	• Identify and constitute Emergency Response Team • Identify ECC, if the identified ones are damaged • Control centers to be equipped with ➢ Communication facilities ➢ Emergency vehicles/equipments ➢ List of emergency contacts & suppliers ➢ Medical facilities	Plant Key Person
Action during effective period	• Do not panic, Raise alarm • Avoid standing near to windows, external walls • Assemble at Emergency assemble point, if instructions are given • Expect aftershocks of similar or lesser intensity, do not panic	Individual(s)

Action after effective period (Establish Emergency Control Centre, Chief Incident Controller to direct all activities)	• Take head count • Activate emergency plan as situation demands • Assess situation and initiate stoppage of construction activities and associated works (if required) • Initiate search & rescue (if required) • Provide first aid to victims. • Remove casualties • Key persons to report to site • Assess damage • Undertake restorative measures & repairs	Incident Controller, Chief Incident Controller, Coordinators (Fire & Security, Safety, Material, Medical) and Plant Key Person

If you are indoor during earthquake do following things

- Keep Calm, duck under the sturdy object and hold onto it until the shaking stop.
- If you are not near sturdy object, cover your head and neck with your arms
- Stay away from windows, bookcases, Shelves, mirrors and fire places
- Stay under cover until the shaking stops, and then follow the evacuation procedure
- Do not use elevators
- Assemble at designated nearest assembly point, if instructions are given and safe to do so
- Contact emergency organization as per chart

If you are outdoor during earthquake do following things

- Keep Calm, move away from trees, construction works, machineries and electrical pole wires etc.
- If driving, pull over to the side of road, stop, and stay inside the vehicle until the shaking is over
- Avoid overpasses, bridges, and electrical power lines
- Move away from fire and smoke if any
- Follow the evacuation procedure
- Assemble at nearest assembly point, if instructions are given and safe to do so
- Do not use elevators
- Contact emergency organization as per chart

b) Storm

The contingency actions during storm shall be based on the weather forecasts obtained from meteorological stations and the local meteorological department. Some of the important actions to be carried out are as follows:

- Prior to Storm

- Establish regular contact with the local meteorological department.

- Establish distances from storm in order to execute preparatory actions in a shorter time.
- Appraise the RCM and consider the consequences that the emergency might have on operations and personnel.
- Check the availability of tools, batteries, non-perishable foods and other materials that might be required.
- Review all operations carefully to ensure that systems in jeopardy are taken care of or stoppage.
- Ensure the readiness of first aiders, emergency vehicles, medical Centre, medicines etc.
- Metallic sheets, loose materials, empty drums and other light objects shall be properly secured.
- Flush the drainage systems.

- During Storm

- Remain calm
- Do not go outdoors and stand under Over Head power lines
- Do not seal the office completely as the suction created by the difference in atmospheric pressure inside and outside can rip open a window or door by breaking window glass panes

- After the Storm

- Do not touch electric lines.
- Stay away from the affected area.
- Take special precautions in driving vehicles since the under-pavement could cave in due to the weight of automobile.
- Check and ensure all electrical connection before charging the power line

c) Flood

Flooding the facilities in SJVN Thermal (P). Limited, Buxar would occur if early prevention of such events is not undertaken. It is noted that such emergency usually develops gradually and there is usually adequate time to respond in order to prevent the condition from worsening.

- Initial Response

Possible flooding has potential that may adversely affect and damage the Construction site as well as equipment, the following should be followed:

- Assess the condition of the site;
- Raise concerns with the Incident controller
- Await further instructions from the Incident Controller and his team.

- Emergency Action Plan

Emergency Action Team shall inform the Incident Controller on the event.
The Incident controller shall assess the situation and decide if the situation warrants activation of the Emergency Response Plan.
The emergency action team shall perform specific tasks such as constructing a dyke around low areas and keeping ready for operation the high-capacity dewatering pumps etc., depending on instructions given by the Incident Controller.
If assistance from the external emergency services is required, the Incident Controller shall notify the RCM to make the necessary callout.
If the flood is beyond control and NDRF help require call NDRF team for help.

d) Flash Flood: -

Flash flood is the damaging floods that occur with little or no warning causing immense loss to life and property. Flash Floods usually takes place when rapidly rising and flowing surge of water reaching full peak within few minutes is generated as a result of excess rainfall or failure of impoundment.

The major causes those are responsible for floods and flash floods are:

- Cloudburst in upper catchments of the river.
- Excessive rainfall in the catchments.
- Sudden breach or failure of manmade or natural barriers.
- Change of river course.

- Early Warning System for Flash Floods

Forecasting and early warning helps in mitigating the effects of disasters. The loss of life and property can be considerably reduced with accurate and timely warning. Climate- meteorological disaster such as flash floods, avalanches etc. be predicted with certain degree of accuracy.

The Communication system is being utilized to alert the vulnerable groups and all the responders.

The timely flow of early warning system from the source to the targeted stakeholder is felt very important. The early warning system is fast need so that it reaches the stakeholders in minimum possible time by recognized means of communication.

C. Manmade emergencies like

a) Air Raid

Air raid warning would be obtained from the District Emergency Authority or Defense Authorities, during which total blackout of the entire complex should be considered. Some of the contingency actions to be considered during an air raid are as follows:

- The Aviation Lights installed on highest point inside the factory shall be switched off.
- All the lighting on the Streets shall be put off.
- All the plant lighting shall be put off.
- Other emergency actions shall be followed in addition as per the general procedure.

b) Bomb Threat

In view of the probable acts of terrorism, the possibility of receiving bomb threats or the sabotage cannot be ruled out. Therefore, consider all bomb threats as genuine and act accordingly keeping in mind the safety of the people at the construction site. For such situation, the security people will take action under the guidance of the Head (Security). The bomb threats may be received in writing or may be received on phone. The expected actions by telephone receiver are as follows:

- Keep the caller on the line as long as possible. Request him to repeat the message, listen carefully as every word spoken by the person has to be recorded mentally or penned down.
- If the caller does not indicate the location of the bomb or the time of possible detonation, it is advisable to try to ask him for this information.
- Pay particular attention to peculiar background noises such as motors running, background music and any other noise, which may give a clue as to from where the call is being made.
- Listen closely to the voice (male, female), voice quality (calm, excited), accents and speech impediments. Immediately after the caller hangs up, report should be made to the security officer on duty about all the above details.
- In consultation with CIC, it can immediately inform the nearest Police station over phone and also Bomb diffusion squad.
- If the location is identified, cordon-off the area and ask people to leave the area and assemble at designated assembly point.
- During strikes police will be informed by HR/Lacing in advance and take their help to maintain law and order.

c) Food and Water Poisoning

Food and water poisoning to people, due to canteen food or other means, is another scenario which can lead to major emergency. In this case, medical coordinator would be informed immediately by the canteen Supervisor or person available at site and then to IC and CIC. In such situation additional help such as ambulances, doctors and medicine would be arranged from nearby hospitals. For such situations CIC may decide whether siren is required to blow or not and arrange to inform key persons at the construction site would rush to ECC and assist CIC for informing nearby hospitals, doctors and govt. authorities in consultation with the doctor.

Plan to deal with food & water poisoning can be divided in following stages:

Step	Activity	Action By
Planning & Preparedness	• Maintain adequate inventory/ supply of medicines, saline water etc. and identify resources to obtain during emergency • Impart awareness training regarding food/water poisoning	Medical Coordinator
Action during effective period *(Establish Emergency Control Center, Site Main Controller to direct all activities)*	• Identify the contaminant source • Seize contaminated material and keep out of circulation • Take preventive measures for avoiding recurrence • Inform all concerned persons • Arrange to analyze samples • Arrange alternate supplies • Arrange medical assistance to the victims • Mobilize assistance from outside (if necessary)	Chief Incident Controller, Medical coordinator
Action after effective period	• Conduct detailed epidemiological investigation to identify the cause of contamination • Take appropriate preventive measures to avoid recurrence • Follow up on causalities	Chief Incident Controller, Medical coordinator, and HOD (HR)

D. Pandemic/ Epidemic Emergencies

Now a days, most of the countries including India are going through medical emergency of COVID-19. COVID -19 pandemic is a Biological Disaster happened and resulted in number of deaths all over the world.

To overcome the COVID -19 Pandemic at SJVN THERMAL (P). LTD., Buxar, following measures has been taken & will also be followed till the situation exists:

- Central Government and State Government Guidelines for COVID-19 must be followed.
- The minimum number of workers required for construction and associated activities must be identified and accordingly Manpower shall be engaged.
- The visitors must not be allowed in the company
- The isolation period for employees coming from COVID 19 infected area shall be defined as per guidelines.
- The isolation facility shall be developed at SJVN THERMAL (P). LTD.

- The social distance, as per guidelines, will be maintained
- The Bio metric attendance by physical contact with machine will be stopped.
- The physical meetings will be cancelled and video conferencing or alternate safe way for meeting will be considered.
- The temperature of every employee entering the company premises will be monitored at gate by security by temperature monitoring equipment and only normal temperature employees will be allowed
- The food Hygiene of all workers will be ensured at company premises
- The use of PPE like nose mask, hand gloves, face shield etc. will be compulsory for workers entering the company

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6.0 NOTIFICATION AND COMMUNICATION SYSTEM

Any worker/employee noticing an unusual event such as smoke, fire and/or explosion should immediately act as follows:

- Shout and warn others about emergency
- Dial emergency number or inform supervisor about details of emergency
- Inform supervisor, move to fire spot and try to extinguish the fire if you are trained in first aid firefighting. Immediately supervisor will inform to RCM.
- The person reporting the incident will remain near the location if safe to guide emergency crew arriving at the scene.

Instructions on- Giving the Message for Emergency

i. Identify himself/herself
ii. State briefly the type of emergency i.e., whether it is fire, explosion or a chemical release.
iii. Give the location of the incident
iv. Estimate the severity of the incident and return to the area of incident and await instructions from Supervisor.
v. Check wind direction and move crosswind of the incident site.
vi. Standby to render all required assistance

6.1 DECLARATION OF EMERGENCY

- Minor Emergency

An emergency situation arising in any section of one particular area which is minor in nature, can be controlled within the affected site itself with the help of in-house resources available at site and the fire department. Such emergencies should be informed to IC. Such emergency does not have the potential to cause serious injury or damage to property/environment and doesn't have domino effect on to other sections of the site or on nearby areas. For such emergencies there is no need to activate the plant level siren and follow procedures laid down in this Emergency Preparedness Plan.

- Major Emergency

An emergency which cannot be controlled locally and has the potential to develop into a major emergency with a potential to cause serious injuries or damage to property/ environment within the affected area or to the nearby areas, within or outside plant boundary, should be considered as a major emergency, it needs immediate action and this Plan would need to be activated. Such emergency situations always warrant mobilizing the necessary internal and external resources to handle the emergency and mitigate its consequences.

- **Immediate Actions during Emergency**

i. The RCM available at site at the time of emergency must immediately inform IC (Incident Controller) and CIC about the possible escalation of emergency.
ii. After receipt of call, IC will rush to the incident site, keeping wind direction in mind.
iii. Take appropriate action to control the situation.
iv. IC assesses the situation and if it is beyond his control, informs the CIC (Chief Incident Controller)
v. CIC would get in touch with ECC.
vi. The attendant in the ECC would inform the identified members (emergency key personnel) of ECC.
vii. CIC would then rush to ECC.
viii. After assuming the position of CIC in ECC, he shall be assisted by key persons of emergency organization.
ix. CIC will set up communication with IC about the situation. After communication with IC, if it is beyond control, then CIC would declare an Emergency and ask for actuating siren and put Emergency Preparedness Plan to action.
x. After receipt of phone call or message from CIC or Concern IC, Fire/Security Control Room operator will blow the siren.
xi. In case situation is beyond control and going to be outside plant boundary or vicinity, CIC would declare off-site emergency and inform the District Emergency Authority about emergency.
xii. In case of off-site emergency, CIC will function under the guidance of District Emergency Administration (Usually headed by District Magistrate/collector).

6.2 Procedure for Sounding the Emergency Siren

Emergency siren will be installed at site. On declaration of emergency, siren will be sounded for communicating to all regarding impending emergency and evacuation.
The siren will be sounded for declaration of emergency as described in point 4.6

6.3 Sequence of Actions after Declaration of Emergency

a) After declaration of an emergency, CIC instructs Liaising Officer to notify the nearby Hospitals, Police Stations and other Organizations for help.
b) The CIC contacts IC to know about the incident.
c) The identified teams carry out their respective functions
d) The other site personnel, except key personnel and those have role during emergency occupy their respective offices and follow instructions from CIC.
e) CIC should interact with the IC and other senior persons in other areas.
f) IC in consultation with the other team leaders at the site of emergency informs the situation to CIC.
g) CIC in consultation with the IC and other key personnel decides whether to stop the construction and other associated activities.
h) If evacuation of the people at the other areas is required, CIC will inform respective HoD of the area to evacuate and ask them to assemble at their respective assembly points.
i) If the CIC orders evacuation, all personnel not belonging to emergency organization (not required for emergency handling directly) should proceed to the notified assembly point and wait for further instructions.

6.4 Communication

a) Persons

The ECC coordinator present in ECC or other designated person will act as ECC operator during emergency. Responsibilities - ECC Operator

- To receive all incoming calls and note them down in the Standard Format
- To contact CIC and other persons as required by the Incident Controller (IC)
- To ensure that communication system is always kept in good working condition.
- To keep records of all incoming and outgoing calls

b) Communication of Emergency

Communication to persons inside the factory and outside is considered vital for effective handling of the emergency.

As the emergency develops, it becomes necessary to communicate with personnel all over the factory such as personnel in the affected area, personnel in other threatened areas, and more importantly, the key personnel.

Communication can be by one or more of the following means/modes:

- Actuating the siren (as detailed above),
- Declaration of emergency and
- Give specific instructions, using public address system, SMS, intercoms if available.

The IC briefs the CIC about the status of the incident or emergency, its likelihood to affect other areas. He also discusses with CIC the approach he would follow in controlling the incident. The CIC consult with other key personnel and briefs them on the strategy he would like to follow and seeks their views and as well as instructs them on emergency response.

c) External Communication

- Key Personnel Not Immediately Available at the Site

  CIC gets in touch with the key personnel and instructs them on emergency response actions.

- Communication to Nearby Communities

  CIC through Liaising Officer establishes contact with the identified (pre- determined) key persons in the neighboring communities, if situation demands.

- Communication with Local Authorities and Emergency Response Agencies

The CIC through Liaising Officer will inform the local authorities such as District Collector, Nearest Police Station, the Directorate of Factories, the State Pollution Control Board & the office of Controller of Explosives etc.

- Name & Contact Numbers of Key Personnel and Emergency Response Agencies

  A telephone directory will be prepared and kept at strategic places such as ECC, entrance gate, site offices.

- Designated Persons for Interaction with Media

  HR Head would be the company's authorised spokesperson for interacting with media, newspapers, TV channels, etc.

- Procedure for Notifying Families of Injured Persons

  Communication to the families regarding injury/fatality would be the responsibility of HR Head. The messages should not make the family panic but give the factual information as to where the injured persons are receiving for treatment.

6.5 Central Reporting Office

ECC would be the central reporting office during the emergency.

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7.0 FIREFIGHTING AND OTHER FACILITIES AVAILABLE

Current Fire Fighting arrangement at construction site:

1. CO_2 extinguisher -62 numbers
2. DCP Extinguisher -62 numbers
3. Foam Extinguisher -10 numbers
4. Fire Bucket – 110 numbers

It is available at every strategic location of site, transformer area, main electrical panel, offices, porta cabin and all buildings.

Water Take up points-

1. Batching plant #1 – Feeding arrangement available
2. Old office of L&T Power, near Transformer-2 Feeding arrangement available
3. L&T Power Main office
4. IDCT #2
5. Boiler #2
6. Chimney area

Note: - Fully equipped CISF Firefighting team will be established in coming future.

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8.0 RESTORATION OF NORMALCY

8.1 Authorisation

Only CIC is authorised to take the decision to "call off" the emergency only after consulting the Incident Controller and other key personnel that the situation is under control and the emergency is over. He will then order to actuate the ALL-CLEAR siren. In case of off-site emergency CIC will "call off" emergency, as instructed by District Emergency Authority.

8.2 Declaration of the End of Emergency

The emergency would be considered to have ended on the actuation of "ALL- CLEAR" siren.

8.3 Communication of the Declaration of the End of Emergency

- All persons within the Construction sites are informed through the "ALL-CLEAR SIREN".
- External agencies, viz., District Collector Office, Factory Inspectorate, Police etc. are again contacted by the Liaising Officer or his Alternate to communicate the end of emergency.
- Inform by CIC to the Corporate/Head Office about end of emergency.

8.4 Restoring Normalcy

When the "ALL-CLEAR" siren is sounded, it indicates end of emergency. However, each site shall resume to normal operation after assessing the situation and by following the laid down procedures.

8.5 Sequence of Actions After the "All-Clear Siren" is actuated

i) CIC contacts all sites key personnel to communicate them the emergency has been called off and instructs for actions to be taken by the person inside.
ii) The Engineering In charge in each location takes a small meeting of all his workers and briefs them and instructs them to go back to their workplaces or as directed by CIC.
iii) The IC in consultation with CIC takes necessary steps to resume normal work.
iv) Construction activities and other associated activities are resumed as per the laid down procedures

***

09. TRAINING AND EMERGENCY DRILLS

09.1 Training

Training would be undertaken as follows:

09.2 Training of emergency teams

All the Team Leaders would undergo training in the following areas:

- Knowledge of hazardous chemicals handled; their physical, chemical and hazardous properties, MSDS, what to do during emergency related to the chemical, antidotes etc.
- Procedure for reporting emergency
- Siren System
- Location-wise types and the numbers of fire extinguishers, and how to use them, etc.
- Types, numbers and locations of different types of PPE (including SCBA and fire suit), situations where they should be used, method of using, etc.
- Fundamentals of rescue and first aid.
- Evacuation Procedure, i.e., assembling at the designated Assembling Points, head-count, their records, followed by method of evacuation.
- Documentation of emergencies.

09.3 Training of Emergency Responders

Different emergency responder teams would be given in-depth training on the various aspects of responses such as Fire Fighting, Rescue Operations, First Aid, , Traffic Control, Head-Count at Assembly Point, etc.

09.4 Training of Team Leaders, Incident Controllers and Chief Incident Controller

A training workshop will be conducted to understand not only role of individual Team Leader, but also issues of coordination, chain of command, etc. through simulation and Table-Top Exercises. Periodic refresher training would also be needed.

The above training would be periodical. The training department, in consultation with HR head would decide the periodicity.

09.5 Emergency Drills

The emergency response plans and emergency preparedness level would be tested through the following drills:

1. Table-top exercise (TTE)

2. Functional exercise (FE)
3. Full-scale exercise (FSE)

All elements/procedures of the Emergency Preparedness Plan would be first tested through TTE and perfected to the extent possible. The Plan then would be modified/ updated. Functional Exercises basically to ensure proper functioning of various equipment such as the fire-fighting equipment and the fire hydrant system. The Full-Scale Drill would be conducted to know the level of preparedness of all teams. Initially, TTE and FE would be conducted periodically.

The following drills are conducted periodically:

- Plant Emergency Drills (fire scenario involving evacuation)

09.6 Periodicity and Responsibility

Serial number	Type of Drill	Frequency	Responsibility
1	Fire drill	Once in 3 months	To be decided by company
2	Plant emergency (fire scenario at transformer, flooding of power house involving evacuation)	Once in six months to start with	To be decided by company

After each drill, there should be a critical review by all participants (including the drill observers). All suggestions and recommendations would be noted for future reference. These will be the basis for the periodic review and updating of the Emergency Management Plan. This way the plan gets more and more refined and updated.

***

10. REGULAR TESTS OF EMERGENCY PROCEDURES

As mentioned against sec. 9.5 & 9.6 above, drills, regular tests of functioning of Emergency Organisation as well as procedures would be carried out through exercises based on simulated emergencies. Besides these exercises, the tests would include –

i) **Siren System** – The Siren System would be tested during mock drill and run for 2-minute duration. The testing would include – activation system, check intensity of the siren from different places so that all in the Plants can distinctly hear it.

ii) Two nos. of Fire Tenders will be procured for handling emergencies at site and will be maintained. The checking of the fire tender will be carried out with the help of checklist for daily, fortnightly and monthly checks.

iii) **Portable Fire Extinguishers** – Testing of operation of different types of fire extinguishers and their periodical inspection, charging, repair/ replacement of parts, etc. will be planned as per the approved schedule. All the fire extinguishers will be physically inspected & tested periodically, i.e. every month and records of such inspections are maintained. This also includes testing and operation of the portable fire extinguishers that can be done through conducting drills. It would serve benefit of testing the operation and at the same time provide opportunity to the personnel to test their skill in handling this equipment. Record of such drills would be kept. The prime responsibility for the testing, inspection and examination is with Fire Department.

iv) **Evacuation practice** – This includes how to assemble at Assembly Points; take head count and transporting them to a safer place. This practice would be done twice in a year.

In extreme situation employee's vehicle can also be used during emergency for evacuation of persons.

***

11 PLAN REVIEW AND UPDATING

It is necessary that the Emergency Preparedness Plan to be 'tested' periodically. As mentioned under Chapters 8 and 9, the testing of the plan would be through Table-Top Exercises, Functional Exercises and Full-Scale Drills.

11.1 Review of The Plan

This plan is a dynamic document and would be reviewed/ updated in the following situations:

i) The plan would be tested from time to time (details given under Sec. 8). Short comings/ lacunas that would be surfaced during testing of the plan, would be recorded/ documented, discussed during debriefing session following the test, decisions are taken to include them in the plan.
ii) If there were a change in process(s), which may add scenario(s) of possible emergencies, the plan would be modified taking into account these additional scenario(s).
iii) Change in contact details such as addresses and telephone numbers.
iv) If no changes in process and manpower then the plan will be reviewed once in three years.

11.2 Responsibility

Updating the Plan would be the responsibility of the designated Safety Officer. This would also include updating of contact information such as address, telephone numbers, hazards etc.

11.3 Procedure

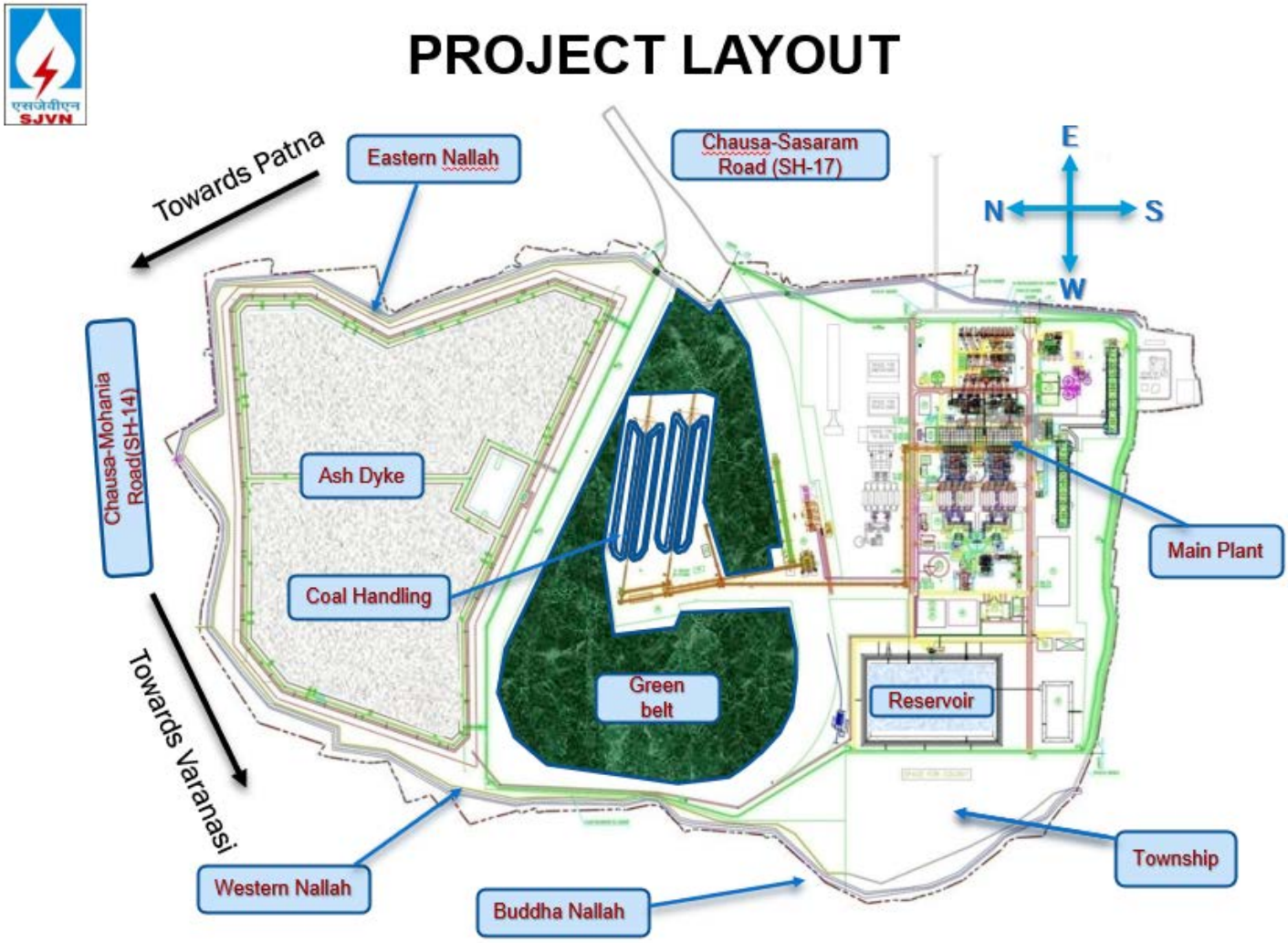
The Plan would be updated after approval from CEO in writing. The designated Safety Officer would submit the proposal as mentioned in Sec. 9.2 above duly supported by justifications to the HoD. After its approval, update the plan and circulate it to the concerned persons. If there is any change in the Division/Department such as name, telephone no. then section head would inform in writing to the Safety Officer for such change no authorization is required.

11.4 Controlled Copies of the Plan

The Emergency Preparedness Plan when approved by the management, sufficient number of copies would be printed; each copy would be identified by a serial number and issued to different persons who have roles to play during the emergency. A register would be maintained indicating which identified copy is issued to a specific person. Complete responsibility of getting the management's approval, printing a number of copies, giving them identification numbers, issuing them, registering the issue, would be the responsibility of the Head (safety). It will also be his responsibility to replace the copies after each modification by giving them identification numbers and re- registering them. This is required to ensure that only up-dated copies are with different personnel.

Annexure-A

LOCATION MAP




WIND ROSE
ASH DYKE
307ACRES
BANAHAR ROAD

Annexure-B

IMPORTANT CONTACTS IN AN EMERGENCY

Sr. no	Member	Office No.	Mobile No.
1	CEO, STPL	06183-295105	09418475698
2	CFO, STPL	06183-295163	09418475173
3	CMO	--------	08091766175
4	HOD (BOP)	06183-295028	09932008800
5	HOD (Mechanical)	06183-295168	09630089352
6	HOD (Civil)	06183-295275	09818158668
7	HOD (Electrical IT and Store)	06183-295285	09418189626
8	HOD (P&C)	06183-295154	09418027517
9	HOD (Rail & Infra)	---------	09418129436
10	HOD (QA/Safety)	06183-295211	09418473548
11	HOD (Vigilance)	06183-295167	09418075542
12	HOD (HR)	06183-295106	09418475228
13	HOD (MIS)	----------	09418453824

Annexure-C

LIST OF HOSPITALS

Sr. No.	Name	Distance from Plant (KM)	Contact No.
1	Buxar Sadar Hospital, Nai Bazar	15	9470003163
2	PHC, Chausa	3	9431021214
3	PHC, Rajpura	9.9	9470003165

Annexure-D

CONTACT DETAILS OF GOVERNMENT AUTHORITIES

Sr. no.	Authority	Contact
1	District Collector	9473191239
2	Superintendent of Police (SP)	9431822981
3	Inspector of Factories	8709030776
4	Fire officer Buxar	7667810014
5	BOCW Inspector	7004860905

FIRE FIGHTING & MEDICAL SERVICES

Sr. no.	Concern	Contact Detail
1	HoD(HR)	9418475228
3	Government Hospital	9431021214 (PHC, Chausa)
4	Main Gate	9576294175
5	Ambulance	9523396819 9334396990
6	Fire Station	9801437926 (Chausa), 9801437926 (Buxar)
7	Police Station	9431822327(Chausa)

Annexure-E

LIST OF SAFETY INVENTORY

❖ **List of PPEs**

Sr. No.	Description of item
1	Industrial Safety Helmet
2	Safety Shoes
3	Safety Reflecting Jacket
4	Safety Goggle
5	Hand Gloves
6	Self-contained Breathing Apparatus*
7	Safety harness Belt*
8	Fire Proximity Suit*
9	Ear Muffs*
10	Pollution Mask/Nose Mask*
11	Led Adjustable Head lamps
12	Gum Boot

Note: - Other work specific required PPEs will be procured in future as per work requirement.

❖ **List of Safety Equipments**

Sr. No.	Items
1	Multi-gas detector
2	O2 detector
3	Vetter lifting bag*
4	High beam light torch
5	Caution tape

*Item will be procured in coming future.

Appendix - 17

SIMA LABS

Sophisticated Industrial Materials Analytic Labs Pvt. Ltd.

(GOVT. APPROVED TESTING LABORATORIES)

Address : A-3/7, Mayapuri Industrial Area, Ph-II, New Delhi - 110064
Phone : +(91)-(011) 43854300
Email : reports@simalab.com
CIN No : U74899DL1988PTC031785
Website : www.simalab.net | www.simalab.com

TC-11220

TEST REPORT

ULR : TC1122025200003794F

Party Code	: S/BHR/18922	**REPORT NO.**	: SE0308020725/N
*Issued to	SJVN Thermal Pvt. Ltd.	*Customer Ref.No.	: NS
	Buxar Thermal Power Project, Main Office Building, Mohanpurwa, Akhouripur Gola, Chausa, Buxar-802114, Bihar	*Reference Date	: NS
		Date of Sampling	: 03/03/2025 To 04/03/2025
		Date of Received	: 08/03/2025
		Date of Issue	: 19/03/2025
		Start Date of Analysis	: 08/03/2025
		Date of Completion	: 18/03/2025
*Sample Name	: Noise Monitoring (Ambient)	Environmental Condition	: 25±2°C,RH50±15%
		Sample Condition	: OK
		*Sample Qty.	: NS
		SOP/Sampling Plan	: SIMA/ENV/SOP/025
		Test Method Deviation	: NA
		Sample Collection	: Sample Collected By Us

RESULTS OF ANALYSIS

Reference : - EP Act Standard/IS:9989

Sample Description	:	Ambient Noise level of M/S SJVN Thermal Pvt. Ltd. was monitored by us from 03/03/2025 to 04/03/2025
Name of Industry	:	SJVN Thermal Pvt. Ltd.
Location of the Sampling Point	:	STPL Township
Date of Sampling	:	03/03/2025 to 04/03/2025
Sampling Period	:	24 Hrs.
Day Time	:	06:00AM to 10:00PM
Night Time	:	10:00PM to 06:00AM

S.No.	Parameters	Unit	Result	Protocol
1.	Leq.	dB(A)	59.3	IS:9989-1981 Reaff:2014
2.	L-10	dB(A)	77.8	IS:9989-1981 Reaff:2014
3.	L-50	dB(A)	67.4	IS:9989-1981 Reaff:2014
4.	L-90	dB(A)	52.4	IS:9989-1981 Reaff:2014
5.	L-(max.)	dB(A)	85.8	IS:9989-1981 Reaff:2014
6.	L-(min.)	dB(A)	47.4	IS:9989-1981 Reaff:2014
7.	Leq.-(Day)	dB(A)	67.1	IS:9989-1981 Reaff:2014
8.	Leq.-(Night)	dB(A)	51.4	IS:9989-1981 Reaff:2014

Limits Leq. dB(A) :-	Industrial Area	Commercial Area	Residential Area	Silence Zone
Day Time	75	65	55	50
Night Time	70	55	45	40

--- End of Test Report ---

Neeraj Singh Adhikari
Reviewed By

Authorized Signatory

Diwakar Jha
D.G.M Technical Environment

Remarks:
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9. Re-testing charges will be applicable in case the results are reproducible.
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11. SIMA Stands for : Sophisticated Industrial Materials Analytic

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* Indicates details provided by the customer

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Email : reports@simalab.com
CIN No : U74899DL1988PTC031785
Website : www.simalab.net | www.simalab.com

TC-11220

TEST REPORT

ULR : TC1122025200003795F

Party Code : S/BHR/18922
*Issued to : SJVN Thermal Pvt. Ltd.

Buxar Thermal Power Project, Main Office Building, Mohanpurwa, Akhouripur Gola, Chausa, Buxar-802114, Bihar

*Sample Name : Noise Monitoring (Ambient)

REPORT NO.	: SE0308020825/N
*Customer Ref.No.	: NS
*Reference Date	: NS
Date of Sampling	: 04/03/2025 To 05/03/2025
Date of Received	: 08/03/2025
Date of Issue	: 19/03/2025
Start Date of Analysis	: 08/03/2025
Date of Completion	: 18/03/2025
Environmental Condition	: 25±2°C,RH50±15%
Sample Condition	: OK
*Sample Qty.	: NS
SOP/Sampling Plan	: SIMA/ENV/SOP/025
Test Method Deviation	: NA
Sample Collection	: Sample Collected By Us

RESULTS OF ANALYSIS

Reference : - EP Act Standard/IS:9989

Sample Description : Ambient Noise level of M/S SJVN Thermal Pvt. Ltd. was monitored by us from 04/03/2025 to 05/03/2025
Name of Industry : SJVN Thermal Pvt. Ltd.
Location of the Sampling Point : STPL Office Complex
Date of Sampling : 04/03/2025 to 05/03/2025
Sampling Period : 24 Hrs.
Day Time : 06:00AM to 10:00PM
Night Time : 10:00PM to 06:00AM

S.No.	Parameters	Unit	Result	Protocol
1.	Leq.	dB(A)	57.7	IS:9989-1981 Reaff:2014
2.	L-10	dB(A)	76.8	IS:9989-1981 Reaff:2014
3.	L-50	dB(A)	62.8	IS:9989-1981 Reaff:2014
4.	L-90	dB(A)	58.4	IS:9989-1981 Reaff:2014
5.	L-(max.)	dB(A)	80.4	IS:9989-1981 Reaff:2014
6.	L-(min.)	dB(A)	49.8	IS:9989-1981 Reaff:2014
7.	Leq.-(Day)	dB(A)	64.2	IS:9989-1981 Reaff:2014
8.	Leq.-(Night)	dB(A)	51.1	IS:9989-1981 Reaff:2014

Limits Leq. dB(A) :-	Industrial Area	Commercial Area	Residential Area	Silence Zone
Day Time	75	65	55	50
Night Time	70	55	45	40

--- End of Test Report ---

Neeraj Singh Adhikari
Reviewed By

Authorized Signatory
Diwakar Jha
D.G.M Technical Environment

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CIN No : U74899DL1988PTC031785
Website : www.simalab.net | www.simalab.com

TC-11220

TEST REPORT

ULR : TC1122025200003796F

Party Code : S/BHR/18922
*Issued to : SJVN Thermal Pvt. Ltd.

Buxar Thermal Power Project, Main Office Building, Mohanpurwa, Akhouripur Gola, Chausa, Buxar-802114, Bihar

*Sample Name : Noise Monitoring (Ambient)

REPORT NO.	: SE0308020925/N
*Customer Ref.No.	: NS
*Reference Date	: NS
Date of Sampling	: 05/03/2025 To 06/03/2025
Date of Received	: 08/03/2025
Date of Issue	: 19/03/2025
Start Date of Analysis	: 08/03/2025
Date of Completion	: 18/03/2025
Environmental Condition	: 25±2°C,RH50±15%
Sample Condition	: OK
*Sample Qty.	: NS
SOP/Sampling Plan	: SIMA/ENV/SOP/025
Test Method Deviation	: NA
Sample Collection	: Sample Collected By Us

RESULTS OF ANALYSIS

Reference : - EP Act Standard/IS:9989

Sample Description : Ambient Noise level of M/S SJVN Thermal Pvt. Ltd. was monitored by us from 05/03/2025 to 06/03/2025
Name of Industry : SJVN Thermal Pvt. Ltd.
Location of the Sampling Point : STPL Main Gate
Date of Sampling : 05/03/2025 to 06/03/2025
Sampling Period : 24 Hrs.
Day Time : 06:00AM to 10:00PM
Night Time : 10:00PM to 06:00AM

S.No.	Parameters	Unit	Result	Protocol
1.	Leq.	dB(A)	61.3	IS:9989-1981 Reaff:2014
2.	L-10	dB(A)	79.4	IS:9989-1981 Reaff:2014
3.	L-50	dB(A)	69	IS:9989-1981 Reaff:2014
4.	L-90	dB(A)	54	IS:9989-1981 Reaff:2014
5.	L-(max.)	dB(A)	87.4	IS:9989-1981 Reaff:2014
6.	L-(min.)	dB(A)	49.2	IS:9989-1981 Reaff:2014
7.	Leq.-(Day)	dB(A)	69.1	IS:9989-1981 Reaff:2014
8.	Leq.-(Night)	dB(A)	53.4	IS:9989-1981 Reaff:2014

Limits Leq. dB(A) :-	Industrial Area	Commercial Area	Residential Area	Silence Zone
Day Time	75	65	55	50
Night Time	70	55	45	40

--- End of Test Report ---

Neeraj Singh Adhikari
Reviewed By

Authorized Signatory

Diwakar Jha
D.G.M Technical Environment

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TC-11220

TEST REPORT

ULR : TC1122025200003797F

Party Code : S/BHR/18922
*Issued to : SJVN Thermal Pvt. Ltd.

Buxar Thermal Power Project, Main Office Building, Mohanpurwa, Akhouripur Gola, Chausa, Buxar-802114, Bihar

*Sample Name : Noise Monitoring (Ambient)

REPORT NO.	: SE0308021025/N
*Customer Ref.No.	: NS
*Reference Date	: NS
Date of Sampling	: 06/03/2025 To 07/03/2025
Date of Received	: 08/03/2025
Date of Issue	: 19/03/2025
Start Date of Analysis	: 08/03/2025
Date of Completion	: 18/03/2025
Environmental Condition	: 25±2°C,RH50±15%
Sample Condition	: OK
*Sample Qty.	: NS
SOP/Sampling Plan	: SIMA/ENV/SOP/025
Test Method Deviation	: NA
Sample Collection	: Sample Collected By Us

RESULTS OF ANALYSIS

Reference : - EP Act Standard/IS:9989

Sample Description : Ambient Noise level of M/S SJVN Thermal Pvt. Ltd. was monitored by us from 06/03/2025 to 07/03/2025
Name of Industry : SJVN Thermal Pvt. Ltd.
Location of the Sampling Point : Labour Colony
Date of Sampling : 06/03/2025 to 07/03/2025
Sampling Period : 24 Hrs.
Day Time : 06:00AM to 10:00PM
Night Time : 10:00PM to 06:00AM

S.No.	Parameters	Unit	Result	Protocol
1.	Leq.	dB(A)	61.1	IS:9989-1981 Reaff:2014
2.	L-10	dB(A)	78.4	IS:9989-1981 Reaff:2014
3.	L-50	dB(A)	64.2	IS:9989-1981 Reaff:2014
4.	L-90	dB(A)	59.2	IS:9989-1981 Reaff:2014
5.	L-(max.)	dB(A)	83.3	IS:9989-1981 Reaff:2014
6.	L-(min.)	dB(A)	52.1	IS:9989-1981 Reaff:2014
7.	Leq.-(Day)	dB(A)	68.1	IS:9989-1981 Reaff:2014
8.	Leq.-(Night)	dB(A)	54	IS:9989-1981 Reaff:2014

Limits Leq. dB(A) :-	Industrial Area	Commercial Area	Residential Area	Silence Zone
Day Time	75	65	55	50
Night Time	70	55	45	40

--- End of Test Report ---

Neeraj Singh Adhikari
Reviewed By

Authorized Signatory
Diwakar Jha
D.G.M Technical Environment

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CIN No : U74899DL1988PTC031785
Website : www.simalab.net | www.simalab.com

TC-11220

TEST REPORT

ULR : TC112202520000 3786F

Party Code : S/BHR/18922
*Issued to : SJVN Thermal Pvt. Ltd.

Buxar Thermal Power Project, Main Office Building, Mohanpurwa, Akhouripur Gola, Chausa, Buxar-802114, Bihar .

*Sample Name : Ambient Air

REPORT NO. : SE0308021125/N
*Customer Ref.No. : NS

*Reference Date : NS
Date of Sampling : 03/03/2025 To 04/03/2025
Date of Received : 08/03/2025
Date of Issue : 19/03/2025
Start Date of Analysis : 08/03/2025
Date of Completion : 18/03/2025
Environmental Condition : 25±2°C,RH50±15%
Sample Condition : OK
*Sample Qty. : NS
SOP/Sampling Plan : SIMA/ENV/SOP/012
Test Method Deviation : NA
Sample Collection : Sample Collected By Us

RESULTS OF ANALYSIS

Reference : As Per EP Act-1986

Sample Description : One Ambient Air sample was collected by us from 03/03/2025 to 04/03/2025

Name of Industry : SJVN Thermal Pvt. Ltd.
Location of the Sampling Point : North of colony & Towards of chimney
Date of Sampling : 03/03/2025 To 04/03/2025
Sampling started at : 11:10 AM (Dt. 03/03/2025)
Sampling completed at : 11:10 AM (Dt. 04/03/2025)
Actual time of sampling : 1440 minutes
Flow rate of sampling : 1.26 m³/minute
Total volume of air sampled : 1814 m³ (For PM 10) & 23.996 m³ (For PM 2.5)
Ambient temperature (°C) : 25

S.No.	Parameters	Units	Results	Limit (Max)	Protocols	Detection Limit
1.	Particulate Matter (as PM -10)	µg/m3	87.8	100	IS:5182 (P-23)	NA
2.	Particulate Matter (as PM - 2.5)	µg/m3	46.3	60	IS:5182 (P-24)	NA
3.	Nitrogen Dioxides (as NO2)	µg/m3	29.1	80	IS:5182 (P-6)	NA
4.	Sulphur Dioxide (as SO2)	µg/m3	20.9	80	IS:5182 (P-2)	NA

Authorized Signatory

Neeraj Singh Adhikari
Reviewed By

Diwakar Jha
D.G.M Technical Environment

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TC-11220

TEST REPORT

ULR : TC112202520000 3786F

Party Code : S/BHR/18922 **REPORT NO.** : SE0308021125/N

S.No.	Parameters	Units	Results	Limit (Max)	Protocols	Detection Limit
5.	Carbon Monoxide (as CO) (8 hours)	mg/m3	1.131	2.0	IS:5182 (P-10) Method-C	NA
6.	Benzene (as C6H6)	µg/m3	BDL	5.0	IS:5182 (P-11)	0.5
7.	Ammonia (as NH3)	µg/m3	BDL	400	IS:5182 (P-25)	20
8.	Ozone (as O3) (8 hours)	µg/m3	22.6	100	IS:5182 (P-9)	NA
9.	Lead (as Pb)	µg/m3	BDL	1.0	SIMA/ENV/STP/003 , Issue No.1 , Issue date 16.03.2024	0.03
10.	Arsenic (as As)	ng/m3	BDL	6	SIMA/ENV/STP/003 , Issue No.1 , Issue date 16.03.2024	1.5
11.	Nickel (as Ni)	ng/m3	BDL	20	SIMA/ENV/STP/003 , Issue No.1 , Issue date 16.03.2024	1.5
12.	Benzo (a) Pyrene (Bap)	ng/m3	BDL	1.0	IS:5182 (P-12)	0.06

NA-Not Applicable, BDL- Below Detection Limit

The above mentioned parameters meets the specification of EP Act Standard.

--- End of Test Report ---

Authorized Signatory

Neeraj Singh Adhikari
Reviewed By

Diwakar Jha
D.G.M Technical Environment

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TC-11220

TEST REPORT

ULR : TC112202520000 3787F

Party Code : S/BHR/18922
*Issued to : SJVN Thermal Pvt. Ltd.

Buxar Thermal Power Project, Main Office Building, Mohanpurwa, Akhouripur Gola, Chausa, Buxar-802114, Bihar .

*Sample Name : Ambient Air

REPORT NO. : SE0308021225/N
*Customer Ref.No. : NS

*Reference Date : NS
Date of Sampling : 04/03/2025 To 05/03/2025
Date of Received : 08/03/2025
Date of Issue : 19/03/2025
Start Date of Analysis : 08/03/2025
Date of Completion : 18/03/2025
Environmental Condition : 25±2°C,RH50±15%
Sample Condition : OK
*Sample Qty. : NS
SOP/Sampling Plan : SIMA/ENV/SOP/012
Test Method Deviation : NA
Sample Collection : Sample Collected By Us

RESULTS OF ANALYSIS

Reference : As Per EP Act-1986

Sample Description : One Ambient Air sample was collected by us from 04/03/2025 to 05/03/2025

Name of Industry : SJVN Thermal Pvt. Ltd.
Location of the Sampling Point : North west of rail bulb & North west of chimney
Date of Sampling : 04/03/2025 To 05/03/2025
Sampling started at : 11:30 AM (Dt. 04/03/2025)
Sampling completed at : 11:30 AM (Dt. 05/03/2025)
Actual time of sampling : 1440 minutes
Flow rate of sampling : 1.24 m³/minute
Total volume of air sampled : 1786 m³ (For PM 10) & 23.904 m³ (For PM 2.5)
Ambient temperature (°C) : 25

S.No.	Parameters	Units	Results	Limit (Max)	Protocols	Detection Limit
1.	Particulate Matter (as PM -10)	µg/m3	89.0	100	IS:5182 (P-23)	NA
2.	Particulate Matter (as PM - 2.5)	µg/m3	47.7	60	IS:5182 (P-24)	NA
3.	Nitrogen Dioxides (as NO2)	µg/m3	30.2	80	IS:5182 (P-6)	NA
4.	Sulphur Dioxide (as SO2)	µg/m3	22.0	80	IS:5182 (P-2)	NA

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TC-11220

TEST REPORT

ULR : TC112202520000 3787F

Party Code : S/BHR/18922

REPORT NO. : SE0308021225/N

S.No.	Parameters	Units	Results	Limit (Max)	Protocols	Detection Limit
5.	Carbon Monoxide (as CO) (8 hours)	mg/m3	1.135	2.0	IS:5182 (P-10) Method-C	NA
6.	Benzene (as C6H6)	µg/m3	BDL	5.0	IS:5182 (P-11)	0.5
7.	Ammonia (as NH3)	µg/m3	BDL	400	IS:5182 (P-25)	20
8.	Ozone (as O3) (8 hours)	µg/m3	22.7	100	IS:5182 (P-9)	NA
9.	Lead (as Pb)	µg/m3	BDL	1.0	SIMA/ENV/STP/003 , Issue No.1 , Issue date 16.03.2024	0.03
10.	Arsenic (as As)	ng/m3	BDL	6	SIMA/ENV/STP/003 , Issue No.1 , Issue date 16.03.2024	1.5
11.	Nickel (as Ni)	ng/m3	BDL	20	SIMA/ENV/STP/003 , Issue No.1 , Issue date 16.03.2024	1.5
12.	Benzo (a) Pyrene (Bap)	ng/m3	BDL	1.0	IS:5182 (P-12)	0.06

NA-Not Applicable, BDL- Below Detection Limit

The above mentioned parameters meets the specification of EP Act Standard.

--- End of Test Report ---

Authorized Signatory

Neeraj Singh Adhikari
Reviewed By

Diwakar Jha
D.G.M Technical Environment

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TC-11220

TEST REPORT

ULR : TC1122025200003789F

Party Code : S/BHR/18922
*Issued to : SJVN Thermal Pvt. Ltd.

Buxar Thermal Power Project, Main Office Building, Mohanpurwa, Akhouripur Gola, Chausa, Buxar-802114, Bihar .

*Sample Name : Ambient Air

REPORT NO. : SE0308021325/N
*Customer Ref.No. : NS

*Reference Date : NS
Date of Sampling : 05/03/2025 To 06/03/2025
Date of Received : 08/03/2025
Date of Issue : 19/03/2025
Start Date of Analysis : 08/03/2025
Date of Completion : 18/03/2025
Environmental Condition : 25±2°C,RH50±15%
Sample Condition : OK
*Sample Qty. : NS
SOP/Sampling Plan : SIMA/ENV/SOP/012
Test Method Deviation : NA
Sample Collection : Sample Collected By Us

RESULTS OF ANALYSIS

Reference : As Per EP Act-1986

Sample Description : One Ambient Air sample was collected by us from 05/03/2025 to 06/03/2025

Name of Industry : SJVN Thermal Pvt. Ltd.
Location of the Sampling Point : East of chimney & Near main entry
Date of Sampling : 05/03/2025 To 06/03/2025
Sampling started at : 12:20 PM (Dt. 05/03/2025)
Sampling completed at : 12:20 PM (Dt. 06/03/2025)
Actual time of sampling : 1440 minutes
Flow rate of sampling : 1.24 m³/minute
Total volume of air sampled : 1786 m³ (For PM 10) & 23.975 m³ (For PM 2.5)
Ambient temperature (°C) : 25

S.No.	Parameters	Units	Results	Limit (Max)	Protocols	Detection Limit
1.	Particulate Matter (as PM -10)	µg/m3	91.1	100	IS:5182 (P-23)	NA
2.	Particulate Matter (as PM - 2.5)	µg/m3	48.4	60	IS:5182 (P-24)	NA
3.	Nitrogen Dioxides (as NO2)	µg/m3	31.2	80	IS:5182 (P-6)	NA
4.	Sulphur Dioxide (as SO2)	µg/m3	22.8	80	IS:5182 (P-2)	NA

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TC-11220

TEST REPORT

ULR : TC112202520000 3789F

Party Code : S/BHR/18922 **REPORT NO.** : SE0308021325/N

S.No.	Parameters	Units	Results	Limit (Max)	Protocols	Detection Limit
5.	Carbon Monoxide (as CO) (8 hours)	mg/m3	1.141	2.0	IS:5182 (P-10) Method-C	NA
6.	Benzene (as C6H6)	µg/m3	BDL	5.0	IS:5182 (P-11)	0.5
7.	Ammonia (as NH3)	µg/m3	BDL	400	IS:5182 (P-25)	20
8.	Ozone (as O3) (8 hours)	µg/m3	23.0	100	IS:5182 (P-9)	NA
9.	Lead (as Pb)	µg/m3	BDL	1.0	SIMA/ENV/STP/003 , Issue No.1 , Issue date 16.03.2024	0.03
10.	Arsenic (as As)	ng/m3	BDL	6	SIMA/ENV/STP/003 , Issue No.1 , Issue date 16.03.2024	1.5
11.	Nickel (as Ni)	ng/m3	BDL	20	SIMA/ENV/STP/003 , Issue No.1 , Issue date 16.03.2024	1.5
12.	Benzo (a) Pyrene (Bap)	ng/m3	BDL	1.0	IS:5182 (P-12)	0.06

NA-Not Applicable, BDL- Below Detection Limit

The above mentioned parameters meets the specification of EP Act Standard.

--- End of Test Report ---

Authorized Signatory

Neeraj Singh Adhikari
Reviewed By

Diwakar Jha
D.G.M Technical Environment

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TC-11220

TEST REPORT

ULR : TC112202520000 3785F

Party Code : S/BHR/18922
*Issued to : SJVN Thermal Pvt. Ltd.

Buxar Thermal Power Project, Main Office Building, Mohanpurwa, Akhouripur Gola, Chausa, Buxar-802114, Bihar .

*Sample Name : Ambient Air

REPORT NO. : SE0308021425/N
*Customer Ref.No. : NS

*Reference Date : NS
Date of Sampling : 06/03/2025 To 07/03/2025
Date of Received : 08/03/2025
Date of Issue : 19/03/2025
Start Date of Analysis : 08/03/2025
Date of Completion : 18/03/2025
Environmental Condition : 25±2°C,RH50±15%
Sample Condition : OK
*Sample Qty. : NS
SOP/Sampling Plan : SIMA/ENV/SOP/012
Test Method Deviation : NA
Sample Collection : Sample Collected By Us

RESULTS OF ANALYSIS

Reference : As Per EP Act-1986

Sample Description : One Ambient Air sample was collected by us from 06/03/2025 to 07/03/2025

Name of Industry : SJVN Thermal Pvt. Ltd.
Location of the Sampling Point : North east of chimney & East of ash dyke
Date of Sampling : 06/03/2025 To 07/03/2025
Sampling started at : 12:40 PM (Dt. 06/03/2025)
Sampling completed at : 12:40 PM (Dt. 07/03/2025)
Actual time of sampling : 1440 minutes
Flow rate of sampling : 1.24 m³/minute
Total volume of air sampled : 1786 m³ (For PM 10) & 23.995 m³ (For PM 2.5)
Ambient temperature (°C) : 25

S.No.	Parameters	Units	Results	Limit (Max)	Protocols	Detection Limit
1.	Particulate Matter (as PM -10)	µg/m3	86.2	100	IS:5182 (P-23)	NA
2.	Particulate Matter (as PM - 2.5)	µg/m3	49.2	60	IS:5182 (P-24)	NA
3.	Nitrogen Dioxides (as NO2)	µg/m3	30.1	80	IS:5182 (P-6)	NA
4.	Sulphur Dioxide (as SO2)	µg/m3	20.7	80	IS:5182 (P-2)	NA

Authorized Signatory

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TC-11220

TEST REPORT

ULR : TC1122025200003785F

Party Code : S/BHR/18922 **REPORT NO.** : SE0308021425/N

S.No.	Parameters	Units	Results	Limit (Max)	Protocols	Detection Limit
5.	Carbon Monoxide (as CO) (8 hours)	mg/m3	1.129	2.0	IS:5182 (P-10) Method-C	NA
6.	Benzene (as C6H6)	µg/m3	BDL	5.0	IS:5182 (P-11)	0.5
7.	Ammonia (as NH3)	µg/m3	BDL	400	IS:5182 (P-25)	20
8.	Ozone (as O3) (8 hours)	µg/m3	22.7	100	IS:5182 (P-9)	NA
9.	Lead (as Pb)	µg/m3	BDL	1.0	SIMA/ENV/STP/003 , Issue No.1 , Issue date 16.03.2024	0.03
10.	Arsenic (as As)	ng/m3	BDL	6	SIMA/ENV/STP/003 , Issue No.1 , Issue date 16.03.2024	1.5
11.	Nickel (as Ni)	ng/m3	BDL	20	SIMA/ENV/STP/003 , Issue No.1 , Issue date 16.03.2024	1.5
12.	Benzo (a) Pyrene (Bap)	ng/m3	BDL	1.0	IS:5182 (P-12)	0.06

NA-Not Applicable, BDL- Below Detection Limit

The above mentioned parameters meets the specification of EP Act Standard.

--- End of Test Report ---

Authorized Signatory

Neeraj Singh Adhikari
Reviewed By

Diwakar Jha
D.G.M Technical Environment

Remarks:
1. This Test Report is not valid without a hologram.
2. The Results listed refer only to the above tested sample & applicable parameters. Endorsement of products is neither inferred nor implied.
3. Liability of laboratory is limited to the invoiced amount only. Any dispute arising out of this report shall be subject to Delhi jurisdiction only.
4. This Test Report is not to be reproduced wholly or in part as evidence in the Court of law without written permission from SIMA Labs Pvt. Ltd.
5. The Test Report should not be used wholly or in part in any advertising media without written permission from SIMA Labs Pvt. Ltd.
6. The sample(s) of Drugs & Cosmetics will be destroyed after one year, Perishable samples (Other than Drugs & Cosmetics) will be destroyed after 7 days and non perishable samples will be destroyed after 30 days of the date of issue of Test Report or unless otherwise specified.
7. SIMA Labs Pvt. Ltd. will not be held responsible for the authenticity of any photocopied, forged and or partially presented test reports.
8. SIMA Labs Pvt. Ltd. will ensure all corrective action as per our policy in case of any discrepancy in any sample tested by SIMA Labs Pvt. Ltd.
9. Re-testing charges will be applicable in case the results are reproducible.
10. Duplicable copy will be issued on chargeable basis.
11. SIMA Stands for : Sophisticated Industrial Materials Analytic

Scan for Accreditation & Scope

* Indicates details provided by the customer

हिन्दुस्तान पटना • गुरुवार • 09 मार्च 2017 • 04

मैसर्स एसजेवीएन थर्मल (प्रा.) लि.
को पर्यावरणीय मंजूरी

पर्यावरण, वन एवं जलवायु परिवर्तन (एमओईएफ एंड सीसी) मंत्रालय के दिनांक 28 फरवरी, 2017 के पत्र सं. जे. 13012/69/2008-आईए.आई(टी) के तहत बिहार में बक्सर जिले के चौसा गांव में प्रस्तावित ''**कोयले पर आधारित 2x660 मेगावाट के सुपर क्रिटिकल बक्सर थर्मल पावर परियोजना (बीटीपीपी)**'' को पर्यावरणीय मंजूरी प्रदान की है।

मंजूरी पत्र की प्रति बिहार राज्य प्रदूषण नियंत्रण बोर्ड के पास उपलब्ध है तथा इसके एमओईएफ एंड सीसी की वेबसाईट http://envfor.nic.in तथा www.http://sjvn.nic.in पर भी देखा जा सकता है।

नारीकर्ता: **मुख्य कार्यकारी अधिकारी**
मैसर्स एसजेवीएन थर्मल (प्रा.) लि.
(भारत सरकार के अधीन एक मिनी रत्न तथा शेड्यूल (ए)
पीएसयू-एसजेवीएन लि. की पूर्व स्वामित्व वाली अधीनस्थ कंपनी)
कार्यालय: नव दुर्गा कॉम्पलेक्स, द्वितीय तल, अम्बेडकर चौक, कलेक्टरेट रोड,
बक्सर-802101 दूरभाष: 06183-223105

हिंदुस्तान न्यूज पेपर दिनांक-9 मार्च 2017 को प्रकाशित किया गया.

सूचनार्थ - मुख्य कार्यकारी अधिकारी
सी एफ ओ
प्रमुख (ईएंड एम)

4 | दैनिक जागरण पटना, 5 मार्च 2017

मेसर्स एसजेवीएन थर्मल (प्रा.) लि.

को पर्यावरणीय मंजूरी

पर्यावरण, वन एवं जलवायु परिवर्तन (एमओईएफ एंड सीसी) मंत्रालय के दिनांक 28 फरवरी, 2017 के पत्र सं० जे 13012/69/2008-आईए.आई(टी) के तहत बिहार में बक्सर जिले के चौसा गांव में प्रस्तावित "कोयले पर आधारित 2x660 मेगावाट के सुपर क्रिटिकल बक्सर थर्मल पावर परियोजना (बीटीपीपी)" को पर्यावरणीय मंजूरी प्रदान की है।

मंजूरी पत्र की प्रति बिहार राज्य प्रदूषण नियंत्रण बोर्ड के पास उपलब्ध है तथा इसके एमओईएफ एंड सीसी की वेबसाईट http://envfor.nic.in तथा www.http://sjvn.nic.in पर भी देखा जा सकता है।

जारीकर्ता : मुख्य कार्यकारी अधिकारी
मेसर्स एसजेवीएन थर्मल (प्रा.) लि.
(भारत सरकार के अधीन एक मिनी रत्न तथा शेड्यूल (ए) पीएसयू-एसजेवीएन लि. की पूर्ण स्वामित्व वाली अधीनस्थ कंपनी)
कार्यालय : नव दुर्गा कॉम्पलेक्स, द्वितीय तल,
अम्बेदकर चौक, कलेक्टरेट रोड, बक्सर - 802101
दूरभाष : 06183-223105

दैनिक जागरण 5 मार्च 2017 को प्रकाशित किया गया।

6/3

सूचनार्थ :- मुख्य कार्यकारी अधिकारी
सी एफ ओ
प्रमुख (~~सी एंड एम~~)

SJVN Thermal Pvt. Ltd.

एसजेवीएन थर्मल प्रा0 लिमिटेड

(A wholly owned subsidiary of SJVN Ltd- A Mini Ratna & Scheduled 'A' PSU under Govt. of India)

2nd Floor, Nav Durga Complex, Collectoriate Road, Ambedkar Chowk, Buxar – 802101

OFFICE OF CEO

☎: 06183-223105 🖷: 06183-223165

Email:ceostpl@gmail.com/hopbtpp@gmail.com

CIN:U31908BR2007PTC017646

सं0स.:एस.टी.पी.एल./बी.टी.पी.पी./पर्या0/2017- 680 दिनांक: 03.03.2017

सेवा में,

मुखिया, चुन्नी पंचायत/सिमरौता/नावानगर
चौसा, बक्सर।

विषयः 2X660 मेगावाट बक्सर थर्मल पॉवर प्रोजेक्ट, बक्सर को भारत सरकार के पर्यावरण, वन एवं जलवायु परिवर्तन (एमओईएफ एंड सीसी) मंत्रालय द्वारा पर्यावरणीय मंजूरी प्रदान करने के संबधं में सूचना।

महोदय,

आपको सहर्ष सूचित किया जाता है कि एसजेवीएन थर्मल प्रा0 लि0 के बक्सर जिले के चौसा में प्रस्तावित "कोयले पर आधारित 2X660 मेगावाट के सुपर किटिकल बक्सर थर्मल पॉवर प्रोजेक्ट (बीटीपीपी)" को भारत सरकार के पर्यावरण, वन एवं जलवायु परिवर्तन (एमओईएफ एंड सीसी) मंत्रालय द्वारा पर्यावरणीय मंजूरी प्रदान कर दी गई है। मंजूरी की सूचना पत्र संख्या J-13012/69/2008-IA.I (T) इंदिरा पर्यावरण भवन, जोरबाग रोड, अलीगंज, नई दिल्ली दिनांक 28.02.2017 के द्वारा इस कार्यालय में प्राप्त हुई है। उपरोक्त पत्रलिपि की प्रति आपके एवं आपके जनसमान्य हेतु सूचनार्थ संलग्न है।

धन्यवाद।

भवदीय,

3/3/17

(प्रवीन गुप्ता)
मुख्य कार्यकारी अधिकारी

संलग्नकः यथोपरी।

Appendix-21

SJVN Thermal (P) Ltd.

(A wholly owned subsidiary of SJVN Ltd.- A Mini Ratna& Schedule 'A' PSU under GoI)

Buxar Thermal Power Project (1320 MW)

CIN:U31908BR2007PTC017646 Email: liaisonpatna@gmail.com

Ref: STPL/BTPP/Envt./17- 199 Date: April 20, 2017

The Additional Principal Chief Conservator of Forests (C),
Ministry of Environment Forest and Climate Change,
Regional office (Eastern-Central Zone Region)
Bungalow No. A-2, Shyamali Colony,
Ranchi - 834 002 (Jharkhand)

बिहार राज्य प्रदूषण नियंत्रण पार्षद
पाटलीपुत्रा औद्योगिक क्षेत्र, पटना-13
24 APR 2017
प्राप्त किया

Attn.: Sh. Kanwarjit Singh, IFS

Sub: Environment Clearance of 1320 MW Buxar Thermal Power Project- regarding.

Dear Sir,

With reference to the subject cited matter, it is submitted that SJVN Thermal (P) Limited, a subsidiary of SJVN Limited (A Miniratna Schedule 'A' CPSU) is implementing the 1320 MW Buxar Thermal Power Project (BTPP) in village Chausa, district Buxar, Bihar. Environment clearance has been accorded to the project by MoEF&CC vide letter no. J-13012/69/2008-IA.I (T) dated 28.02.2017. (Copy enclosed)

In this regard, in compliance of the letter of environmental clearance, the following information/data is kindly submitted to your good office for reference and records.

- The final EIA/EMP report and additional information submitted to MoEF&CC for seeking environment clearance in hard and soft copy.
- The project information sheet in the prescribed format in hard and soft copy.
- Copy of the advertisement published in local newspapers for publicizing the grant of environmental clearance.
- A copy of the environment clearance letter has also been uploaded on SJVN's website; www.sjvn.nic.in

It is kindly submitted that the project execution work shall be started after obtaining PIB & CCEA approval and the project commissioning has accordingly been planned during FY 2022-2023.We further undertake that STPL shall comply with all conditions stipulated in the Environment Clearance letter and will be submitting the first six monthly compliance report (for period of April 2017- September 2017) in the month of October 2017 and thereafter half yearly regularly to your office.

In addition, it is kindly requested that all future correspondence to this office may be addressed to the Chief Executive Officer, SJVN Thermal Pvt. Ltd. 2nd floor, Navdurga Complex, Near Ambedkar Chowk, Collectorate Road, Buxar -802101 E-mail: liaisonpatna@gmail.com, Phone: 06183-223168, 9630089352.

Contd

We hope the above information is line with your requirements.

Thanking You,
Yours Faithfully,

20/04/2017
(Parveen Gupta)
Chief Executive Officer

Encl.(s): As above

Copy: For kind information please:.

1. Member Secretary, Bihar State Pollution Control Board, Parivesh Bhawan, Patliputra Industrial Area, Patn

बिहार राज्य प्रदूषण नियंत्रण पार्षद
पाटलीपुत्रा औद्योगिक क्षेत्र, पटना-13
24 APR 2017
प्राप्त किया
18576