

त्रिपुरा गैस आधारित विद्युत संयंत्र / TRIPURA GAS BASED POWER PLANT

सं./No. NEEPCO/TGBPS/HOP/A-02/2025-26/13

दिनांक/Date: 27/05/2025

सेवा में/To,

The Scientist "D",
Ministry of Environment & Forest,
North Eastern Regional Office,
LAW-U-SIB, LUMBATNGEN,
Shillong- 793021.

Sub: Submission of six-monthly Environment Monitoring Report for the period 1st October 2024 to 31st March 2025 in respect of 101MW Tripura Gas Based Power Station, Monarchak, Sonamura, Sepahijala, Tripura-799131.

Dear Sir,

With reference to the above, we are enclosing herewith the six monthly Environment Monitoring Report (*Part I & Part II*) along with monitoring data for Ambient Air Quality (AAQ) (*Annexure A*), Liquid waste discharged data (*Annexure B*), NO_x emission data (*Annexure C*), ETP Water (*Annexure D*), Spot Noise (*Annexure E*) and Stack Emission (*Annexure F*) for the period 1st October 2024 to 31st March 2025 in respect of 101MW Tripura Gas Based Power Station (TGBPS), Monarchak for your kind information and needful please.

The report is being sent in the e-mail IDs: ro.nez.shil@gmail.com and moefro.shillong@gov.in

Thanking you,

Yours faithfully,

Encl: 1) Monitoring Report (*Part I & II*)
(1st January to 30th June 2024)
2) Annexure A, B, C, D, E & F



(PANKAJ DATTA CHOUDHURY)

उप महाप्रबंधक (तक.)

Deputy General Manager (Tech)
टीजीबीपीएस, नीपको/TGBPS, NEEPCO

**REPORT ON MONITORING OF IMPLEMENTATION OF ENVIRONMENT SAFEGUARDS OF
GAS BASED POWER PROJECT
MONITORING REPORT
Part-I (DATA SHEET)**

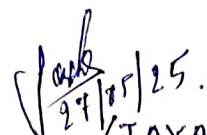
Period: 1st October 2024 to 31st March 2025

1	Project Type River valley/ Industry/ Thermal/ Nuclear/ Other(Specify)	Gas Thermal Combined Cycle
2	Name of Project	Tripura Gas Based Power Station, 101 MW
3	Clearance letter(s) OM No & Date	No. J13011/4/2001-1AII(T), dated. 27.12.2001 of MOE&F, New Delhi.
4	Location	
	a) District(s)	Monarchak, Sonamura, Dist.- Sepahijala
	b) State(s)	Tripura
	c) Latitude & Longitude	Latitude (N) : 23° 26' 26" Longitude (E) : 91° 17' 00"
5	Address of Correspondence	
	a) Address of concerned Project Chief Engineer/Manager(with PIN Code and Telephone / Telex / Fax Number	Head of the Project, TGBPS, NEEPCO, PO- Dhanpur, Sonamura, Sepahijala, Tripura, Pin- 799131. Phone : 9435339748 / 9085180520 Email: hoptgbpp@neepco.co.in
	b) Address of Executive Project Engineer/Manager(with PIN Code and Telephone/Telex/Fax Number	DGM (E/M) TGBPS, NEEPCO, PO- Dhanpur, Sonamura, Sepahijala, Tripura, Pin- 799 131. Phone : 9862585337
6	Salient features	
	a) Project	101 MW Gas Based Combined Cycle Power Project. (Consisting of one Gas Turbine & one Steam Turbine). Plant civil works, erection works, works of Raw Water Intake and laying of 4.7 Km long Raw water pipe line from River Gumti to the Plant are completed.
	b) Environment Management Plan	Disposal of effluent after proper treatment only to the nearest river Gumti by 3.0 KM long pipeline. Development of green belt, Control of Air pollution & sound pollution. Creation for rain water harvesting / water body.
7	Breakup of the Project area	
	a) Submergence area (forest and non-forest)	No submergence area is involved.
	b) Other	Forest land: 60.472 Ha Non forest land including Govt. Khash land: 19.825 Ha Total - 80.297 Ha
8	Breakup of the project affected population with enumeration of those losing houses/dwelling units only agricultural land only, both dwelling units and agriculture land and landless labourers/artisans	
	a) SC/ST/Adivasi	NIL
	b) Others	Total 16 affected families were rehabilitated by the Govt. of Tripura acquiring additional 6.73 acres of Govt. Khash land at Kalapania.
9	Financial Details	
	a) Project as originally planned and subsequent revised estimated and the year of prime reference.	1. ₹623.44 Crores (approved cost at Nov' 2009 Price Level). PIB Clearance accorded on 23.07.2010 and CCEA Clearance accorded on 23.02.2011. 2. ₹1062.24 Crores (Revised cost at Oct '2016 Price Level). Vetted by CEA.



	b) Allocation made for environmental management plans with item wise and year wise break up.	1. Compensatory afforestation ₹88.00 lakhs paid to the Deptt. of Forest, Govt. of Tripura. 2. Development of Green belts, rain water harvesting / water body & maintenance- ₹ 100.00 lakhs. 3. Machines include inbuilt provision for Environment Monitoring System.
	c) Benefit cost ratio/internal rate of return at the end of the year of assessment.	As per RCE (March '2015 PL): (i) FIRR : 14.83 % (ii) EIRR : 17.03 %
	d) Whether (c) includes the cost of environment management as shown in (b) above.	N.A.
	e) Actual expenditure incurred on the project so far	Expenditure (Cumulative) up to 30.09.2024 = ₹1326.07 Crores (approximately).
	f) Actual expenditure incurred on the environmental management plans so far.	An amount of ₹ 14,62,150.00 has been spent during the FY 2023-24 for environment compliance requirements.
10	Forest land requirement	
	a) The status of approval for diversion of forest land for non-forestry use	Cleared on 6 th Feb'2004 vide Letter no. 8-77/2001/FC of Asstt. Inspector General of Forest Govt. of India.
	b) Status of compensatory afforestation, if any.	An amount of ₹88.00 lakhs has been released to the Deptt of Forest, Govt. of Tripura
	c) The status of clear felling.	N.A.
	d) Comment on the viability and sustainability of compensatory afforestation programme in the light of actual field experience so far	N.A.
11	The status of clear felling in non-forest areas such as submergence area of reservoir, approach road if any, with quantitative information.	N.A.
12	Status of Construction	
	a) Date of commencement (actual and/or planned).	23.07.2010, Date of PIB Clearance.
	c) Date of completion (actual and/ or planned)	36 months from 23.07.2010
	d) Reason for delay if project is yet to start.	Combined Cycle commissioned in March'2017. This delay in completion was due to non-supply of gas by ONGC as per GSA.
13	Date of Site Visit.	
	a) The dates on which the Project was monitored by the Regional Office on previous occasion, if any.	On 13.08.2024, Jr. Scientist from TSPCB, Agartala visited TGBPS.
	b) Date of site visit for this monitoring report.	On 13.08.2024, Scientist D from MoEF, Shillong visited TGBPS.
14	Details of correspondence with project authority for obtaining action plans, information and status of compliance to safeguards.	Monthly and Six monthly monitoring reports are being submitted to MOE&F, NER, Shillong regularly. Necessary action plan is being taken up.
15	Public appreciation and public complaint on the Project.	No public complaint has been received so far.




 (JAYANTA DAS)
 संयंत्र प्रमुख / HEAD OF PLANT
 टीजीबीपीएस, नीपको/TGBPS, NEEPCO

PART-II
COMPLIANCE CHECKLIST

Information regarding implementation of terms and conditions of
environmental clearance for implementation of
Tripura Gas Based Power Station, Monarchak

Ref:- Letter No. J.13011/4/2001-1A.II(T) dated 27-12-2001 of the Director, Ministry of
Environmental and Forest, Govt. of India, New Delhi.

Sl. No	Stipulation	Action Taken	Status of Compliance
I	All the conditions stipulated by Tripura State Pollution Control Board vide their letter No.F.6 (3)/TSPCB/CON/87/500MW/ 221-32 dated 9 th Feb, 2001 and its subsequent amendments should be strictly implemented.	The conditions stipulated in the NOC and its subsequent amendments are being taken care of / implemented, based on which Consent to Operate was issued. Regular renewal is being carried out. Last Certificate was issued on 21.11.2023 which is valid up to 20.11.2028	Being complied.
II	Acquisition of land should be restricted to 75 ha including 62 ha of forest land. Separate clearance should be obtained for diversion of forest land under the Forest (Conservation) Act, 1980.	Forest land: 60.472 Ha. Non forest land including Govt. Khash land: 19.825 Ha. Total: 80.297 Ha. Clearance for diversion of forest land for non-forestry use has been conveyed by the Asstt. Inspector general of Forests, Ministry of Environment and Forest, F. C. Division, Govt. of India vide letter No. 8-77/2001-FC dated 06.02.2004.	Complied
III	Stack of height 30 mtrs. should be installed with continuous on line monitoring system.	Considered during design of stack. Height of stack is 30 mtrs.	Complied
IV	NO _x Emission should be restricted to 50 PPM.	Dry Low NO _x Burners has been incorporated in the Gas Turbine for limiting NO _x emission within permissible limit. Real time uploading of data DCS (Data Control System) to the Central Pollution Control Board's web site is operative.	Complied
V	Consumptive water drawn for the project from Gumti River which flows at 6 kms from the project site should not exceed 1125 m ³ /hour. Closed Circuit Cooling Towers should be installed for conservation of water. Permission for withdrawal of water should be obtained from State Irrigation Department. Discharge of treated effluents should not exceed 65 m ³ /hour. It should be ensured that the quality of treated effluents is in conformity with the standards laid down for discharge of effluents into fresh	Water being drawal from river Gumti @ 68.00 cum/hr. Closed circuit cooling Towers installed for conservation of water. Permission for drawl of water has been obtained from Govt. of Tripura vide letter no. F15 (136)/51/WRPC/071931 - 34 dated 4 th August 2007. Treatment of effluents and subsequent discharge being done as per laid down terms and conditions. Discharge of treated effluents is well below the limit, i.e., 65 cum/hr.	Complied



Sl. No	Stipulation	Action Taken	Status of Compliance
	water.		
VI	Natural Gas should be used as primary fuel @2.0 MMSCUM per day at 100% loading. Natural Gas should be free from sulphur content and calorific value should be 9,250 K. cal/kg. Fuel for the project should be transported only through pipeline from wells of ONGC in vicinity of the project and particularly from Konaban well. While finalizing the 15 km route of Gas pipeline, care should be taken to avoid congested areas and high traffic zones.	Agreement has been drawn with ONGCL for supply of 0.5 MMSCMD of natural gas and is being used as laid down in the terms and conditions.	Complied
VII	HSD, which will be used as start-up fuel, should be stored in a tank of 25 KL capacity and surrounded by dykes of adequate capacity to contain failure of the tank and subsequent pool fire. Similarly, the chlorine cylinders should be stored in a room provided with chlorine leak detector, alarm with an exhaust fan with scrubber system to absorb chlorine in case of any leakage.	No start up fuel is required as the Gas Turbine unit is started through Static Frequency Converter. Chlorine cylinders are stored in a room provided with chlorine leak detector, alarm with an exhaust fan with scrubber.	Complied
VIII	Noise level should be limited to 75 dBA and regular maintenance of equipment be undertaken. For people working in the area of generator halls and other high noise areas, earplug should be provided.	Considered during design of equipment.	Complied
IX	For controlling fugitive dust, regular sprinkling of water in vulnerable areas of the plant should be ensured.	Green grass carpeting outside the equipment building has been done.	Complied
X	Afforestation should be undertaken covering at least 1/3 rd plant area with a 100 m wide green belt along the plant boundary. A norm of 1500-2000 trees per ha. Should be followed as per CPCB guidelines. Adequate financial provision should be made for afforestation activities and details should be submitted within three months. For implementation of green belt development, a Joint Implementation Committee should be established with active participation of local people and project authorities.	Plantation along the plant periphery considering a wide green belt and overall coverage of 1/3 rd plant area has been done. More plantation as a continuous process is also being observed. A Joint Implementation Committee consisting of representative of local people and NEEPCO Official is formed for implementation of Green Belt development.	Complied
XI	All effluents generated in various plant activities should be collected in the Central Effluent Treatment	Effluent Treatment Plant is designed accordingly and twin central monitoring basins are provided for treatment.	Complied

Sl. No	Stipulation	Action Taken	Status of Compliance
	Plant/ Central Monitoring Basin and treated to ensure adherence to specified standards of usage.		
XII	Machinery for the project should be transported through existing road network which would need strengthening. In case of alteration in the mode of transportation, the promoters should submit supplementary proposal for assessment and review by the Ministry.	All the 28 nos. of OD Consignments have been transported from Kolkata to Badarpur by river route and then to Project site by Road. Non ODC transported by road.	Complied
XIII	Plant should be operated only in combined cycle mode for more than 98% of the time and operation in open cycle should be only in case of emergency and for a limited time.	Plant is being operated only in combined cycle mode. Only in case of emergency the plant is operated in open cycle mode for a limited time.	Complied
XIV	Regular monitoring for SPM, SO ₂ , and NO _x around the power plant should be carried out and records maintained, Monitoring Stations should be established in consultation with the State Pollution Control Board.	Control & instrumentation for monitoring of SPM etc. have been designed and erected. The SO _x , NO _x and SPM data is being monitored on real time basis. The real time uploading of data from DCS to the Central Pollution Control Board's web site is operative.	Complied
XV	The project proponent should advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned, informing that the project has been accorded environmental clearance and copies of clearance letters are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of environment and Forests at http://www.Envfor.nic.in	Published in a) Dainik Sambad on 31.01.2002 b) Tripura Times on 31.01.2002 c) Danik Ganadoot on 05.02.2002	Complied
XVI	A monitoring Committee should be constituted for reviewing the compliance of various safeguard measures by involving recognised local NGOs, Pollution Control Board, Institutions, experts etc.	A committee is formed to ensure effective implementation and compliance of the various environmental stipulations & guidelines indicated in the NOC issued by TSECB and Environmental Clearance Accorded by MOE&F, GOI for TGBP Project.	Complied
XVII	The Project Authorities should inform the Regional Office as well as the Ministry the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.	The matter will be intimated in due course	Approval of final completion cost will be informed in due course.

Sl. No	Stipulation	Action Taken	Status of Compliance
XVIII	Full cooperation should be extended to the Scientists/ Officers from the Regional Office of the Ministry at Shillong/ the CPCB/ the SPCB who would be monitoring the compliance of environmental status. Complete set of impact assessment report and the Management Plans should be forwarded to the Regional Office for their use during monitoring.	Full co-operation is being extended.	Action will be taken as necessary.

[Handwritten signature]

[Handwritten signature]
 17/05/25.
 (JAYANTA DAS)
 संयंत्र प्रमुख / HEAD OF PLANT
 टीजीबीपीएस, नीपको/TGBPS, NEEPCO