



**F.No. J-13012/02/2017-IA.II(T)**  
**Government of India**  
**Ministry of Environment, Forest and Climate Change**

3<sup>rd</sup> Floor, Vayu Block,  
Indira Paryavaran Bhawan, Jor Bagh Road,  
Aliganj, New Delhi-110003

Dated: 12.10.2020  
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To

The Managing Director  
**M/s ONGC Tripura Power Company Ltd.**  
(JV company of ONGC, IL&FS, IIF-II and Govt. of Tripura)  
Regd. Office, Udaipur-Kakraban Road,  
Palatana P.O., District Gomati,  
Tripura-799105.

**Sub: Proposed Expansion of 726.6 MW (Unit-3&4: 2x363.3 MW) Gas based Power Project at Village Palatana, Tehsil Kakraban, Dist. Gomati, Tripura by M/s ONGC Tripura Power Company Limited – reg. grant of Environmental Clearance.**

Sir,

This has reference to your online application No. **IA/TR/THE/97559/2006** dated 01.3.2019 regarding grant of Environmental Clearance for the the above mentioned project.

2. It has been noted that the Terms of Reference for proposed expansion of 726.3 MW (Unit-3 & 4: 2x363.3 MW) Gas based Power Project has been issued vide Ministry's letter dated 06.04.2017.

3. It has been noted that the Environmental Clearance for establishing 2x363.3 MW has been issued vide Ministry's letter dated 07.02.2007 and the validity of the EC has been extended till 05.02.2017 vide Ministry's letter dated 03.05.2012. It has been informed that the Unit -1: 363.3 MW and UNIT -2: 363.3 MW were commissioned on 04.01.2014 and 24.03.2015 respectively.

4. It has been proposed to establish the expansion units within the existing plant on the available land. Thus no additional land is to be acquired. Total area of the site is 197.15 acres (79.78 ha) out of which 193.66 acres (78.37 ha) is forest land and 3.49 (1.41 ha) acres is private land. The company has received the Stage-II Forest Clearance from Tripura Forest Department on 25.04.2006. The project is located in Zone-V of Seismic zone which is more prone to earthquakes.

5. It has been informed that the existing plant has been set up in 164.05 acres out of 197.15 acres and the proposed project will utilise 33.1 acres of land. In addition, the company has acquired 8.24 acres (3.33 ha) for raw water pipeline corridor & 2.21 acres (0.89 ha) for plant site boundary straightening purposes. Accordingly, the total Project area including raw water pipeline corridor is 207.60 Acres.

6. The project is located at 7.74 km from the Trishna Wildlife Sanctuary. It has been informed that draft Eco-sensitive Zone (ESZ) ranging from 0 to 500 m around the periphery of Trishna Wildlife Sanctuary was published vide S.O. 4776 (E), dated 10<sup>th</sup> September 2018). The final Notification of ESZ published on 18.11.2019

specifying ESZ of 0-500 m from the boundary of the Sanctuary. As informed, the proposed project site (both existing and proposed) is out of ESZ.

7. The project is based on Combined Cycle Gas Turbine which generates electricity and the waste heat is used to generate steam to produce additional electricity via steam turbine. The fuel for the proposed project is Natural Gas. The gas consumption for the existing plant at 85% PLF is 2.65 MMSCMD. The gas requirement for the proposed project is in the range of 2.7-3 MMSCMD. The Ministry of Petroleum and Natural Gas vide letter dated 7.10.2004 allocated 5.0 MMSCMD of natural gas to the company. Accordingly, 2.35 MMSCMD is available for the proposed project and the shortfall for expansion project has been requested to MoPNG for additional gas. The gas will be sourced from the gas fields of Tripura operated by M/s ONGC Ltd. The estimated calorific value of the natural gas is 8250 kCal/Sm<sup>3</sup>.

8. Water requirement of 100 m<sup>3</sup>/day will be required during construction phase. The water requirement for the existing plant is 25,320 m<sup>3</sup>/day. The water requirement for the proposed project is 20,400 m<sup>3</sup>/day. The water requirement for construction and operation phase will be sourced from Gumti River. The PWD, Govt. of Tripura has granted permission to draw 125 MLD (1.25 Lakh m<sup>3</sup>/day) from the Gumti river for plant purposes. The existing power plant is discharging the treated effluent water (approximately 4,858 m<sup>3</sup>/day) into the Gomti river.

9. It has been agreed that for conversion of both existing and proposed units into zero discharge, RO treatment systems for treated effluent from existing units shall be taken up with proposed expansion project. With the implementation of the above, after COD of expansion unit, the additional water requirement for the expansion unit will be reduced to 16,539 m<sup>3</sup>/day. About 7608 m<sup>3</sup>/day RO treated water will be utilised as cooling makeup water for expansion units and the entire balance treated water will be used for greenbelt & Horticulture with zero discharge outside the plant premises. The specific water consumption for proposed expansion project would be reduced to 0.98 m<sup>3</sup>/MWh against the limit of 2.5 m<sup>3</sup>/MWh.

10. The primary baseline environment data has been collected during March-May, 2017 by M/s Mitra SK Private Ltd. (NABL accredited laboratory). Ambient air quality has been collected from 8 locations. The average PM<sub>10</sub> PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>2</sub> concentrations are in the range of 55.33-66.08 µg/m<sup>3</sup>, 26.04-31.33 µg/m<sup>3</sup>, 5.03-5.82 µg/m<sup>3</sup> and 21.01-24.13 µg/m<sup>3</sup>, respectively. The ambient air quality is within the National Standards. Maximum incremental ground level concentrations due to proposed project have been predicted through plume dispersion modeling and the incremental concentrations from the stack for NO<sub>x</sub> and PM<sub>2.5</sub> are 11.25 µg/m<sup>3</sup> and 0.2 µg/m<sup>3</sup>, respectively.

11. The Public Hearing has been conducted by Tripura State Pollution Control Board on 4.10.2018 at Palatana, Gomati District. The main issues raised in the public are agricultural development, compensatory afforestation, discharge of wastewater into nearby agricultural fields and damaging the productivity, assistance to dairy development, development of sanitation facilities in the Murapara School, assistance to irrigation facilities, providing street lights, skill development, etc. The action plan to fulfill public hearing issues has been submitted and a budget of Rs.8.95 Crores (0.25% of project cost) as part of CER has been earmarked to implement the activities within 5 years.

12. It has been informed that the wildlife conservation plan for Schedule-I species within the study area has been prepared and submitted to Chief Wildlife Warden, Tripura for vetting and approval on 4<sup>th</sup> July, 2019.


13. The MoEF&CC Regional Office vide dated 20.11.2017 & 1.4.2019 submitted certified compliance report of existing power plant. It has been noted that the action plan has been submitted against the observations made by the Regional Office. The observations are monitoring of PM2.5 regularly, connecting online emission & effluent results to LCD to display at the entrance, submission of data on year-wise expenditure on EMP, Public Liability Insurance Premium, Mock drills & details of greenbelt developed, uploading of EC compliance reports periodically online. It has been noted that the data/documents were submitted to Regional Office and the Ministry. Further, it was committed to monitor PM2.5 emissions and connect online emissions/effluents to LCD at the gate within 6 months.

14. It was informed that the Environmental Clearance (EC) for the existing project was accorded by MoEF&CC in February 2007 and the validity was subsequently extended to May 2012. However, the requirement of NBWL recommendations as the project is located within 10 km radius of Trishna WLS was not stipulated in the EC letters. Further, it was informed that MoEF&CC Regional Office inspected the project site and the requirement of obtaining NBWL recommendations was not raised by them. Accordingly, it was informed that proponent did not approach NBWL for obtaining recommendations.

15. The total project area is 207.60 Acres. The Greenbelt area developed under the project is 73.08 Acres. The percentage of greenbelt area developed with respect to total project area (proposed & expansion) is 35.20% of the plant area. It was also agreed that the isolated open areas within the project will be earmarked and taken up for plantation. To isolate the gas handling plant during emergency, water sprinkler jacket be provided for both existing and proposed plants.

16. The estimated Cost of the project is Rs.3,580 Crores. Cost of Environmental Management Plan during Construction phase and Operation Phase is Rs.19.69 lakhs and Rs.6.32 Crores, respectively. The CSR budget for five years plan is Rs.8.95 Crores. The existing manpower is 155 persons. Around 500 number of persons will be required during construction phase of the proposed project. Subsequently, around 235 persons will be engaged during operation phase for the entire plant.

17. The proposal was appraised by the EAC (Thermal) in its meetings held on 26.4.2019, 23.8.2019 and 14.5.2020. The sub-committee of EAC conducted site visit during 28<sup>th</sup> -30<sup>th</sup> June, 2019. In acceptance of the recommendations of the Re-constituted EAC (Thermal Power) in its meeting held on 14.5.2020 and in view of the information, clarifications and documents submitted by Project Proponent, **the Ministry hereby accords the Environmental Clearance to the above project** under Schedule 1(d) of the EIA Notification dated September 14, 2006 with following specific conditions for compliance:-

- i. The Environmental Clearance is issued for both units (2x363.3 MW). Fuel linkage for the quantity of 2.35 MMSCD Natural gas is available at present to cater to one unit. A copy of the fuel linkage for the second unit shall be furnished, as and when allocated.
- ii. Greenbelt shall be developed in 73.08 Acres out of total project area 207.60 Acres. In addition, as proposed, the greenbelt is to be taken up in the isolated patches in the project area.
- iii. As proposed, an outlay of Rs. 8.95 crores (0.25% of the project cost) shall be utilised for addressing public hearing issues such as agriculture development, assistance to irrigation, education and compensatory  afforestation and the amount is in line with the Ministry's Circular dated

01.05.2018. The status of expenditure along with activities shall be submitted in the compliance report.

- iv. The NO<sub>x</sub> emissions from flue gas shall be less than 50 ppm and the stack with height of 60 m shall be constructed for adequate dispersion of flue gases.
- v. Cold venting of Natural gas is not permitted. Emergency flaring is permitted. The amount of Natural gas flared annually to be submitted.
- vi. Water requirement for proposed project is 16,540 m<sup>3</sup>/day with zero liquid discharge. The present requirement of existing power plant is 25320 m<sup>3</sup>/day and generating wastewater of nearly 5800 m<sup>3</sup>/day. As agreed, the existing power plant is should upgrade wastewater treatment systems to achieve zero discharge for the entire plant. Monthly water consumption drawn from Gomti river for both phases shall be furnished.
- vii. The Green House Gas accounting shall be done on annual basis which should also include flaring of gas and submit the report along with offsetting measures, if any to the Ministry.
- viii. Estimated Cost of the project is Rs.3,580 Crores. Cost of Environmental Management Plan during Construction phase and Operation Phase is Rs.19.69 lakhs and Rs.6.32 Crores, respectively. The status of expenditure shall be submitted annually.
- ix. The Standard EC conditions for Thermal Project to be complied with on uploaded in the website of the Ministry ([http://moef.gov.in/wp-content/uploads/2018/03/E12Q0QNG\\_Standardisation-of-Conditions-of-EC-for-TPP-19112018.pdf](http://moef.gov.in/wp-content/uploads/2018/03/E12Q0QNG_Standardisation-of-Conditions-of-EC-for-TPP-19112018.pdf)).

18. Once the project construction is complete, the final layout of the Plant including the existing one to be submitted stating the scope/extent of work envisaged in the EIA along with estimated cost vis-à-vis the actual cost incurred.

19. The Ministry reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction. The Ministry may also impose additional environmental conditions or modify the existing ones, if necessary.

20. The environmental clearance accorded **shall be valid for a period of 7 years** from the date of issue of this letter to start operations by the power plant.

21. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

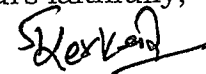
22. In case of any deviation or alteration in the project proposed including coal transportation system from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.

23. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.

24. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

This issues with the approval of the Competent Authority.

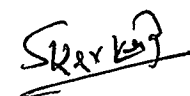
Yours faithfully,



**(Dr. S. Kerketta)**  
**Director, IA.I**

*Copy to:-*

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. The Deputy Director General of Forests (C), Regional Office (NEZ) Law-U-Sib, Lumbatngen, Near MTC Workshop, Shillong, Meghalaya- 793021.
5. The Principal Secretary, Environment Department, Govt. of Tripura, Vigyan Prajukti, Paribesh Bhavan, P.N. Complex, Gorkhabasti, Agartala, Tripura-799006.
6. The District Magistrate and Collector, Gomati District, Govt. of Tripura.
7. Guard file/Monitoring file.
8. Website of MoEF&CC



**Director, IA.I**