



# ONGC Tripura Power Company Limited

(JV Company of ONGC, IL&FS, IDFC and Govt. of Tripura)

Kakraban Road, P.O. Palatana, Gomati District, Tripura - 799105

Phone: 0381-236-3714, Fax: 0381-236-3716

Date: 16.05.2018

**HALF YEARLY COMPLIANCE STATUS REPORT (Ending 31<sup>st</sup> March, 2018) OF ENVIRONMENTAL CLEARANCE ACCORDED TO M/s ONGC TRIPURA POWER COMPANY LIMITED (OTPC) VIDE NO. J-13011/11/2006-1A.II (T), DATED 07.02.2007**

Sl. No.	Terms & Conditions Stipulated in the Environmental Clearance	Compliance Status till 31 <sup>st</sup> March, 2018
1	The conditions stipulated by TSPCB Vide their letter no E.17 (10) {TSPCB {L-Red}{2364{2174-2273} dated 26.05.2006 shall be strictly implemented.	The latest Consent to operate certificate obtained from Tripura State Pollution Control Board bearing No. F.17 (10)/TSPCB/S/Power/(L-Red)/2364/Vol-III/9285-91, dt. 05.08.2017 is valid up to 04.08.2018. The Terms and conditions laid down in consent are being complied with.
2	The Natural Gas requirement shall be limited to 5.25 MMSCM Per Day. No fuel other than Natural Gas shall be used.	During this half yearly period, the average consumption of Natural Gas was 2.20 MMSCM per day which is far below the stipulated limit and will be kept within limit in future also. Natural Gas is the only fuel which can be used in the process by virtue of the process design.
3	Necessary permission from the Chief Controller of Explosives as applicable shall be obtained and a copy of the same shall also be submitted to this ministry.	Necessary permissions have been obtained from The Chief Controller of Explosives, Nagpur and are appended herewith: <ul style="list-style-type: none"> <li>i) Raw Water Chlorination Licence no. G/EC/TR/06/46 (G32617) for storage of chlorine gas in cylinders is valid till 30.09.2020.</li> <li>ii) Cooling Water Chlorination Licence no. G/EC/TR/06/47 (G32614) for storage of chlorine gas in cylinders is valid till 30.09.2020.</li> <li>iii) Liquid Carbon Dioxide storage (Unit 1): Licence no. S/HO/TR/03/4(S51791) is valid till 30.09.2022.</li> <li>iv) Liquid Carbon dioxide storage (Unit 2): Licence no. S/HO/TR/03/6(S51790) is valid till 30.09.2022.</li> <li>v) Filling and storage of Hydrogen gas: Licence no. G/HO/TR/05/5 and G/HO/TR/06/5 valid till 30.09.2024.</li> </ul> <p>Copies of these licences are attached as Annexure 1</p>

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Phone: 0381-236-3714, Fax: 0381-236-3716, Website : [www.otpcindia.in](http://www.otpcindia.in)

(An ISO 9001, ISO 14001 and OHSAS 18001 Certified Organisation)


4	Total Land requirement for the project shall not exceed 90.19 ha (228.26 acres) for all facilities put together.	Total land requirement for the project including all facilities put together has been kept limited to 90.19 ha (228.26 acres).																					
5	Distance between HFL of river Gomati and the project boundary shall not be less than 500 meter at each point.	Distance between HFL of river Gomati and the project boundary is around 2 Km at each point.																					
6	Three stacks of 60 meter each shall be installed with continuous on line monitoring system. The exit velocity of flue gas shall be maintained at 15 m/sec.	Two stacks of height 60 meter each have been installed for first two units of the project. Third stack of 60 meter shall be installed during erection and commissioning of third unit. The stacks have been designed by M/s Bharat Heavy Electricals Limited (BHEL) to maintain the exit velocity of flue gas at 15 m/sec.																					
7	Low NOx burners shall be provided. NOx emission from individual stacks shall be restricted to less than 50 PPM	Dry Low NOx burners have been installed. The combustion system has been designed by M/s GE Power to maintain NOx emission concentration below 50 PPM. Online CEMS system has been installed and real time data of stack emission are being transmitted to the server at CPCB, New Delhi. During the half yearly period the average value of NOx emission thorough stacks was maintained below 16 PPM for Unit #1 and below 15 PPM for Unit # 2.																					
8	Regular Sprinkling of water in vulnerable areas of the plant shall be ensured.	Soil in most of areas within plant premises is under green belt and green cover. However, regular sprinkling of water is ensured in isolated small patches with bare soil (which are very less in area) to suppress dust emission.																					
9	Effective safe guard measures shall be taken to ensure that there are no fugitive emissions of gas.	The entire power plant including the Gas supply Pipe lines are designed and maintained such that no fugitive emission of gas takes place during operation of the plant.																					
10	Regular monitoring of the air quality including HC levels both in work zone and ambient air shall be carried out in and around the power plant. Complete analysis of the recorded data shall be regularly undertaken and results shall be submitted to this ministry and its Regional Office at Shillong every six months.	Air quality is being monitored regularly at a frequency of twice in a week (104 measurements per year) at each of four Ambient Air Quality Monitoring Stations installed inside the plant boundary whose locations have been approved by the Tripura State Pollution Control Board.  HC measurement is being done by hand hold portable gas detector instrument. No traceable level quantity is found.  AAQM Report of last six months is enclosed as Annexure 2.																					
11	Closed Cycle Cooling System with minimum COC of 5 shall be provided.	Closed cycle cooling system is being used with design value of COC is in between 5 to 7 and we maintain COC value greater than 5. Month wise average values during the period are :  <table border="1"> <thead> <tr> <th><u>Month</u></th> <th><u>U#1</u></th> <th><u>U#2</u></th> </tr> </thead> <tbody> <tr> <td>Oct, 17 -</td> <td>6.72</td> <td>7.09</td> </tr> <tr> <td>Nov, 17 -</td> <td>6.62</td> <td>6.86</td> </tr> <tr> <td>Dec, 17 -</td> <td>6.13</td> <td>6.84</td> </tr> <tr> <td>Jan, 18 -</td> <td>5.74</td> <td>6.90</td> </tr> <tr> <td>Feb, 18 -</td> <td>5.84</td> <td>6.86</td> </tr> <tr> <td>March, 18 -</td> <td>6.26</td> <td>6.88</td> </tr> </tbody> </table>	<u>Month</u>	<u>U#1</u>	<u>U#2</u>	Oct, 17 -	6.72	7.09	Nov, 17 -	6.62	6.86	Dec, 17 -	6.13	6.84	Jan, 18 -	5.74	6.90	Feb, 18 -	5.84	6.86	March, 18 -	6.26	6.88
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*(S. Ray)*

12	Treated effluents conforming to the prescribed standards only shall be discharged into river Gomati.	<p>Effluents collected from entire plant are treated in the Effluent Treatment Plant installed inside the plant to ensure that treated effluent discharged into the river conform to prescribed standards. As per instruction of CPCB, Online effluent monitor has been installed and real time data of discharged effluent quality are being transmitted to the server at CPCB, New Delhi.</p> <p>pH value of effluent is maintained in between 6.5 to 8.5 and the TSS is maintained below 20 mg/L.</p> <p>Month wise average values of discharge effluent quality during the period are :</p> <table border="1" data-bbox="746 622 1212 907"> <thead> <tr> <th><u>Month</u></th> <th><u>pH</u> (Min – Max)</th> <th><u>TSS</u></th> </tr> </thead> <tbody> <tr> <td>Oct, 17 –</td> <td>7.32 – 7.78</td> <td>12.01</td> </tr> <tr> <td>Nov, 17 –</td> <td>7.30 – 7.64</td> <td>11.00</td> </tr> <tr> <td>Dec, 17 –</td> <td>7.13 – 7.70</td> <td>05.34</td> </tr> <tr> <td>Jan, 18 –</td> <td>7.09 – 7.78</td> <td>03.82</td> </tr> <tr> <td>Feb, 18 –</td> <td>6.78 – 7.77</td> <td>01.60</td> </tr> <tr> <td>March, 18 –</td> <td>6.91 – 7.68</td> <td>04.50</td> </tr> </tbody> </table>	<u>Month</u>	<u>pH</u> (Min – Max)	<u>TSS</u>	Oct, 17 –	7.32 – 7.78	12.01	Nov, 17 –	7.30 – 7.64	11.00	Dec, 17 –	7.13 – 7.70	05.34	Jan, 18 –	7.09 – 7.78	03.82	Feb, 18 –	6.78 – 7.77	01.60	March, 18 –	6.91 – 7.68	04.50
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13	Rain water harvesting shall be adopted in consultation with the Central Groundwater Authority/Board. The plan for the same shall be submitted within a period of three months from the date of clearance.	Constructions of rainwater harvesting pits (1267 million liter per annum capacity) are in progress, civil construction work for catchment area and water pipe line work is already completed. Electrical work and related balance work are in the verge of completion. The project completion got delayed due to hindrance of heavy rain fall in the state of Tripura. The Rain Water Harvesting project is expected to be completed within May -2018.																					
14	Leq of Noise level shall be limited to 75 dBA. For people working in the area of generator and other high noise areas, requisite personal protective equipments like earplugs etc. shall be provided.	<p>Leq of Noise level is being controlled within 75 dBA.</p> <p>Maximum value of ambient area Noise Level are appended:</p> <table border="1" data-bbox="746 1451 1165 1736"> <thead> <tr> <th><u>Month</u></th> <th><u>Max. Observed Value</u> (dBA)</th> </tr> </thead> <tbody> <tr> <td>Oct, 17 –</td> <td>62</td> </tr> <tr> <td>Nov, 17 –</td> <td>63</td> </tr> <tr> <td>Dec, 17 –</td> <td>62</td> </tr> <tr> <td>Jan, 18 –</td> <td>63</td> </tr> <tr> <td>Feb, 18 –</td> <td>63</td> </tr> <tr> <td>March, 18 –</td> <td>63</td> </tr> </tbody> </table> <p>People working in the area of generator and other high noise areas have been provided with Ear plugs &amp; muffs and use of PPEs are made compulsory.</p>	<u>Month</u>	<u>Max. Observed Value</u> (dBA)	Oct, 17 –	62	Nov, 17 –	63	Dec, 17 –	62	Jan, 18 –	63	Feb, 18 –	63	March, 18 –	63							
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15	A 50 m wide green belt shall be developed around the plant periphery covering the 28 hectare of area.	A 50 m wide green belt have been developed around the plant periphery but we have compelled to make an approach road in that area for security patrolling purpose around the periphery of the plant. Total Green Belt has already been developed on 28 hectare of land area inside the plant.																					

  
(K. Ray)

16	Adequate safety measures shall be provided to limit the impact within the plant boundary in case of an accident. Leak detection devices shall also be installed at strategic places for early detection and warning	The detection and fire fighting system installed include: i) Leak detection devices and Smoke detector devices have been installed at strategic locations for early detection. ii) Argonite gas flooding system, CO <sub>2</sub> gases flooding system, Fire alarms, water spray deluge systems and water spray systems have been installed at strategic locations for fire suppression and fighting. iii) Fire hydrant network has been laid in entire plant area for fire fighting. iv) Portable fire extinguishers have been kept at 300 locations. v) Two nos. adequately equipped fire tenders vehicle with trained fire crew team are being maintained round the clock at plant site.
17	Regular mock drills for the On-Site emergency management plan shall be carried out as per The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989. Implementation of changes/improvements required if any, in the On-Site emergency management plan shall be ensured.	An onsite emergency plan considering various types of emergencies has been formulated and is being amended from time to time for improvement. It is amended in last 9 <sup>th</sup> October, 2017. Mock drills are being carried out regularly. Our stipulated frequency of Mock Drill is at least once in six month. Mock drill was conducted during the period on dated 30.11.2017 and 30.03.2018.
18	The project proponent shall advertise at least in two local news paper widely circulated in the region around the project, one of which shall be in vernicular language of locality concerned, 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 Website of the Ministry of Environment and forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a>	Information of obtainment of Environmental Clearance and availability of copies of clearance letter with the Tripura State Pollution Control Board and Website of MoEF was published in two local news papers on vernacular language viz. 'Dainik Sambad' and 'Deshar Katha', dated 30 <sup>th</sup> December 2008.
19	A separate environmental management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	A separate environmental management cell headed by the Plant Head with concerned staff members is being maintained for implementation of the stipulated environmental safeguards.
20	Half yearly report on the status of implementation of the stipulated conditions and environmental safeguard shall be submitted to this ministry, its Regional office, CPCB and SPCB.	Half yearly report is being submitted regularly to MoEFCC, North Eastern Zonal Office of MoEFCC, CPCB and TSPCB.

  
(S. Ray)

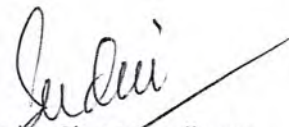
21	Regional office of the Ministry of Environment and Forests located at Shillong will monitor the implementation of the stipulated conditions. Complete set of Environmental Impact assessment report and Environmental Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional office for their use during monitoring.	Complete set of Environment Impact Assessment Report and Environmental Management Plan had been submitted to the Regional office of MoEFCC in Shillong. Any additional information as and when asked by the office is also being provided. Periodic visit has also been undertaken by Regional Office of MoEFCC, Shillong to monitor the implementation of stipulated conditions.
22	Separate fund shall be allocated for implementation of environmental protection measures along with item wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purpose and year wise expenditure should be reported to the Ministry.	Separate fund had been allocated in project cost to implement environmental protection measures. The funds earmarked for the environment protection measures were not diverted for any other purpose. Presently plant is in operation stage and environment protection measures are taken through O&M expenditure in a separate budget.
23	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 land development work and commissioning of plant.	The Unit 1 was successfully commissioned and dedicated to our Nation by Honorable President of India on 21 <sup>st</sup> June, 2013 and COD was declared on 04.01.2014. & The Unit 2 has been successfully commissioned and dedicated to our Nation by Honorable Prime Minister of India on 1 <sup>st</sup> December 2014 and COD has been declared on 24.3.2015.
24	Full cooperation shall be extended to the scientist/officer from the Ministry/ Regional office of the ministry at shilling / the CPCB/the SPCB who would be monitoring the compliance of environmental status.	OTPC commits to extend full cooperation to the scientists / Officers from any of the regulatory authorities mentioned in connection with monitoring of environmental compliance.

Prepared by:



Sital Ray  
Manager (EHS)

Approved by:



Sudin Chattopadhyay  
Vice President (Plant)

Enclosures: As mentioned above