



# GUJARAT STATE ELECTRICITY CORPORATION LIMITED

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AN ISO-9001:2015, ISO-14001:2015, OHSAS 18001:2007 Certified Power Plant  
CIN: U40100GJ1993SGC019988

By RPAD

No.: WTPS/EEEC/Env/1445 Q/unit 7EC/ 2589

Date: 9 APR 2021

To,  
The Joint Director,  
Ministry of Environment, Forest & Climate change,  
Regional Office, Western Region,  
Link Road no. 3, E-5, Ravishankar Nagar,  
Bhopal - 462 016. (MP)


Sub: Submission of compliance report of Environment clearance issued for WTPS unit no 7.  
Ref: Environmental clearance issued by MOEF, vide letter no. J-13011/13/93/IA/II dated 19/04/94.

Dear Sir,

In context to above subject, enclosed herewith please find half yearly compliance report of environment clearance issued by MOEF for unit no. 7 of WTPS , along with statistics of data regarding effluent quality, stack emission and ambient air quality for the period from October 20 to March 2021 in annexure - I to IV.

Thanking You,


Yours Faithfully,

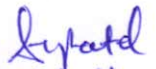
  
(K.H. Solanki)

I/c Chief Engineer (C&O)  
GECL: WTPS

O/c

Encl: As Above  
Copy to;  
C.E. (Gen. /P&P), GSECL, CO, Vadodara. By mail.

SE (ope)   
16/4

EE (EEEC)   
16-4-21



Sub: Compliance report for conditions of environmental clearance issued by Ministry of Environment & Forest, New Delhi on 19/4/1994, for GSECL-WTPS unit no 7.

No.	Condition framed in Environment Clearance	Compliance of the conditions
2	Condition & safeguards for implementation	
I	Stack height should be provided as per MOEF's notification dated 19/5/93.	Stack height of unit no 7 is 220 meter, which is as per the MOEF's requirement.
II	ESP/ alternate dust collecting equipment with operational efficiency of not less than 99.8% should be provided so that the PM emission should not exceed 150 mg/Nm <sup>3</sup> failing which plant should be shut down. Adequate redundancies should be provided so that partial failures do not result in exceeding the limit mentioned above. Arrangement for interlocking of ESP/alternate equipment would be desirable.	ESP provided with operational efficiency 99.76%. BAPCON & RAPCON system are provided for automatic control of ESP rectifier parameters for optimum working of ESP. The average emission of PM from unit 7, almost remains within prescribed limit of 100 mg/Nm <sup>3</sup> . Opacity meter is provided to monitor the particulate matter emission level. Online analyzer for measurement of SO <sub>2</sub> & NO <sub>x</sub> parameters in flue gas emission is provided in unit no 7. All realtime results are being transmitted to CPCB server.
III	Space provision for installation of desulphurization plant should be made so that the same could be provided, if required in future from environment angle.	Adequate space provision is kept nearby ESP area, for installation of desulphurization plant if required in future at unit no. 7.
IV	Liquid effluents including cooling water emanating from the plant, ash pond & other area should be properly treated to conform to the standard stipulated by SPCB or MOEF whichever is more stringent.	Pumps are provided & wastewater from effluent sump outlet & composite outlet is partly reutilized, as per requirement in ash plant & for gardening use. Zero liquid discharge scheme (ZLD) is implemented for ash dyke effluent. Annexure-I attached herewith.
V	The project authority should prepare a comprehensive EIA report including air quality data of all season & submit within a year.	Revalidation of EIA report was submitted in the year 1999.
VI	The cooling towers were to be replaced by modern one so that the water requirement does not increase.	Natural draft cooling tower of 112 meter height is provided for optimum water requirement.
VII	In order to arrest the heavy concentration of liquid effluent, to be properly treated as per stipulated standard.	Liquid effluent is being properly treated to achieve stipulated standard, before discharging in river. Flow meter & online analyser for pH, TSS & Temperature parameters are provided.
VIII	Time frame for carrying out the mitigation measure mentioned in the sec-9 of the rapid EIA to be submitted within one month.	Time frame mitigation measures were complied as suggested in the comprehensive EIA report for unit no. 7. WTPS having ISO-14001 certification (Environment management system) issued by M/s. KBS. 14 nos. of percolating wells are constructed for rain water harvesting scheme at WTPS area. PVC cabins with fixed glass window are provided in high noise areas in plant. Dry fog dust control system (DFDCS) is provided in coal handling plant.
IX	The project authority should furnish a workable plan for full utilization of fly ash for the approval of the appraisal committee/MOEF Provision of flyash collection should be made by the dry system.	100% flyash utilization achieved in unit 7. Flyash from ESP, economizer & APH is being collected in silo of unit 7 & given to cement manufacturing companies. The action plan for utilization of fly ash was submitted to MOEF in past.
X	A green belt of not less than 50 meters width & adequate density should be raised all around the plant & right from the construction stage. Plantation around the ash pond area should also be provided.	11318 nos. of sapling is planted in open plot near entrance of ash dyke area. Nakti vell sapling is planted wherever possible in all ash dyke area to control fugitive ash pollution.



XI	The requirement of land for ash disposal should be based on ash utilization plan. Recycling & reuse of ash pond effluent should be done so as to achieve zero discharge to the maximum extent possible.	Zero liquid discharge scheme is provided for ash dyke discharge.
XII	Continuous dust monitoring system should be provided in each stack/duct & calibrated at least once in a week. Monitoring of stack emission of SO <sub>2</sub> /NO <sub>x</sub> should be done at least once in a month.	Opacity meters & SO <sub>2</sub> / NO <sub>x</sub> analyzer for continuous measurement are installed in all seven units. Calibration is being done on auto mode & as per requirement. Monitoring of SO <sub>2</sub> /NO <sub>x</sub> carried out through outside agency & env. auditor. Realtime results are displayed on CPCB server. Annexure-II attached herewith.
XIII	Efforts should be made to minimize evaporation losses of water to the extent possible.	Closed cycle cooling water system is adopted for all units. Evaporation of water from cooling water depends up on weather atmosphere condition. 5.0 COC of cooling water treatment is maintained.
XIV	Adequate monitoring station for ambient air & water quality should be provided in consultation with the SPCB. Levels of pollutants (SPM, SO <sub>2</sub> ,NO <sub>x</sub> ) should be monitored on regular basis & record maintained. The parameters for water quality including ground water contamination in the vicinity area should be monitored & the records maintained.	WTPS has installed weather monitoring station. Necessary data like air temperature, relative humidity, wind speed, wind direction are recorded & maintained. Data of underground borewell water, up stream water, down stream water, effluent discharge, stack monitoring, and ambient air quality monitoring with meteorological data is submitted to CPCB/GPCB. Annexure-III&IV attached herewith.
XV	A separate environment cell with suitable qualified people to carry out various functions should be set up under the control of senior executive who will report directly to the head of the organization.	WTPS has constituted separate EEEEC (Environment Energy Efficiency Cell) section headed by Superintending Engineer (Ope.).
3	The condition stipulated may be varied or new conditions may be added or the clearance evoked , if necessary, in the interest of environment protection and if there is any change in the project profile, non satisfactory implementation of the stipulated condition etc.	There is no change in project profile. WTPS has installed unit no. 7 of 210 MW capacity.
4	The stipulations will be implemented, among others under the Water act, the Air act, the Environment Protection act, and the PLI act.	Noted.
5	Necessary funds should be provided in the project for implementation of the above mentioned conditions and environment safeguards. The funds earmarked for the environmental protection measures should not be diverted for other purposed and yearwise expenditure should be reported to this Ministry.	The necessary fund is allotted & expensed towards activities & works pertain to environmental safe guards. The year wise expenditure report for environment measures is submitted for the year 20-21 to MOEF.

