

**DESCRIPTIVE REPORT ON STATUS OF COMPLIANCE TO THE CONDITIONS OF THE ENVIRONMENTAL CLEARANCE AND ENVIRONMENTAL MANAGEMENT- For the period ending 30.06.2023**

**Subject:** 2x660 MW Ennore SEZ Coal based Super critical Thermal Power Project

**Reference:** MoEF letter no. J-13012/36/2010-IA II (T) dated 07.01.2014  
Amendment in EC Lr. No. J-13012/36/2010-IA-II(T) DT. 14.08.2018( For revised capacity 2x660 MW)  
MoEF letter no. J-13012/36/2010-IA II (T) dated 04.02.2019, Validity Extention up to 06.01.2021  
MoEF letter no. J-13012/36/2010-IA II (T) dated 09.04.2021, Validity Extention up to 31.12.2023

**For EC**

**4) A. SPECIAL CONDITIONS:**

SL No.	CONDITIONS	COMPLIANCE STATUS
ii	Harnessing Solar power within the premises of the plant particularly at available roof tops shall be undertaken and status of the implementation shall be submitted periodically to the Regional office of the Ministry	Provision for harnessing of solar power has been made in the project scope.
iii	No transportation of imported coal by road shall be permitted	Noted
iv	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.7% and 12% respectively at any given time. In case of variation of coal quality at any point of time, fresh reference shall be made to the Ministry for suitable amendments to environmental clearance condition where ever necessary	Will be taken up after commissioning
v	Bi-flue stack of 275 m height shall be provided with continuous on line monitoring equipments for Sox, Nox and particulate matter PM2 & PM10. Exit velocity of flue gases shall not be less than 22 m/sec. Mercury emissions from stack shall also be monitored on periodic basis	Bi flue stack 275 m height will be provided/Monitoring condition pertains to the operation phase of the project. Hence, will be taken up after commissioning
vi	FGD shall be installed for both the units of 660 MW each	Action is being taken to install FGD

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| vii High efficiency Electrostatic precipitators (ESP's) shall be installed to ensure that particulate emission from the proposed plant does not exceed 50 mg/Nm <sup>3</sup>   | : ESP were designed and erection under progress to meet the MOEF norms of particulate emission from the proposed plant less than 50mg/Nm <sup>3</sup>  |
| viii 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.   | : All dust extraction system water spray in coal handling and ash handling were taken in to account during execution itself and work is under progress.  |
| ix Utilisation of 100% Fly ash generated be made from day one of operation of the plant. Status of implementation shall be reported to the Regional office of the Ministry from time to time.  | : "Condition pertains to the operation phase of the project. Hence, will be taken up after commissioning."   |
| x Fly ash shall not be used for agricultural purpose. 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. | : "Condition pertains to the operation phase of the project and will be complied."   |
| xi Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unused fly ash shall be disposed off in the ash pond in the form of slurry form. Mercury and other heavy metals (As, Hg, Cr, Pb, etc.,) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed off in low lying area.   | : "Condition pertains to the operation phase of the project and will be complied."   |
| xii Ash pond shall be lined with HDPE/LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.  | : The ash dyke is already constructed over a impermeable layer of clay and hence no leachate will take place at any point of time. Adequate safety measures will also be implemented to protect the ash dyke from getting breached |

- xiii 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.

: "Condition pertains to the operation phase of the project". Hence will be taken up after commissioning."
- xiv A long term study of radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute. Therebyafter 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.

: "Condition pertains to the operation phase of the project. Hence, will be taken up after commissioning."
- xv Continuous monitoring for heavy metals in and around the existing ash pond area shall be immediately carried out by reputed institutes like IIT, Chennai.

: study on the quality of the ground and surface water was carried out by Anna University during 2015 at various locations and found that the heavy metals are within the allowable limit .However study will be again carried out after commissioning of Power plant
- xvi 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.

: Noted
- xvii COC of atleast 1.3 shall be adopted.

: "Condition pertains to the operation phase of the project. Hence, will be taken up after commissioning."
- xviii A well designed rain water harvesting system shall be put in place which shall comprise of rain water collection from the built up and open area in the plant premises.Action plan and road map for implementation shall be submitted to the Regional Office of Ministry

: Rain water harvesting system will be adopted and details will be furnished.
- xix Hydrogeology of the area shall be reviewed annually from an institute / Organisation of repute to assess impact of surface water and ground regime (especially around ash dyke. In case any deterioration is observed specific mitigation measures, shall be undertaken and reports / data of water quality monitored regularly and maintained shall be submitted to the Regional Office of the Ministry

: Will be taken up after commissioning.

- xx Waste waters generated from the plant : Will be taken up after commissioning.  
shall be treated before discharge to comply  
limits prescribed by the SPCB/CPCB
  
- xxi Additional soil for leveling of the proposed : 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 maximum extent possible.
  
- xxii Green Belt consisting of three tiers of : Will be complied.  
plantations of native species 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 less than  
2500 per ha with survival rate not less than  
80 %
  
- xxiii A common **Green Endowment Fund** shall : Green Endowment fund will be allotted for  
be created and the interest earned out of it  
shall be used for the development and  
management of green cover of the area. the development of green cover. Plantation  
of tree saplings and maintenance works for  
the period of six months around this project  
area was carried out in Mouthambedu  
village, Chepakkam village, Tamil Koranjur  
village, Katupalli village and Oornambedu  
village. Maintenance of existing tree saplings  
for further 6 months are also completed in  
Mouthambedu, Chepakkam and Tamil  
Koranjur village.
  
- xxiv The project proponent shall also adequately : CSR fund of 37 crore is allotted to the social  
contribute in the development of the  
neighbouring villages. Special package with  
implementation schedule for free potable  
drinking water supply in the nearby villages  
and schools shall be undertaken in a time  
bound manner welfare activities of the neighbourhood  
villages as a capital cost and revenue  
expenditure for every year maintenance will  
also be allotted. Total value of CSR works  
done so far Rs.16.24 lakhs

- xxv An amount of Rs 37.00 Crores shall be earmarked as one time capital cost for, CSR programme. Subsequently a recurring expenditure of Rs 7.40 Crores per annum till the life of the plant shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within one month of the issue of this letter along with road map for implementation.
- : Total value of CSR works done so far Rs.16.24 lakhs. It has been decided to carry out further CSR works by getting the details of works to be attended in nearby villages every year from the District Collector/Tiruvallur. It is proposed to transfer the fund to District Administration for carrying out CSR activities
- xxvi CSR scheme should address Public Hearing issues and shall be undertaken based on need based assessment in and around the villages within 5.0 km of the site and in constant consultation with the village Panchayat and the District Administration. As part of CSR prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken. Development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes. Vocational training programme for possible self employment and jobs shall be imparted to identify villagers free of cost.
- : Total value of CSR works done so far Rs.16.24 lakhs. It has been decided to carry out further CSR works by getting the details of works to be attended in nearby villages every year from the District Collector/Tiruvallur . It is proposed to transfer the fund to District Administration for carrying out CSR activities.
- xxvii It shall be ensured that in- built monitoring mechanism for the CSR schemes identified is in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time
- : CSR works is being done in consultation with Madras School of Social works and District Administration regularly
- xxviii An Environmental Cell shall be created at the project site itself and shall be headed by an officer of the company of appropriate seniority and qualification. It shall be ensured that the head of the Cell shall directly report to the Head of the Organization
- : Arrangement is being made to form a separate Environment Monitoring cell at site.

#### **4) B. GENERAL CONDITIONS:**

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| 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.   | :<br>:<br>: Condition pertains to the operation phase of the project and will be complied   |
| ii  | A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation  | : STP construction work will commence shortly and treated sewage water will be used for raising greenbelt/plantation.   |
| 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   | : Condition pertains to the operation phase of the project. Hence, will be taken up after commissioning   |
| 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  | : HSD and HFO tank are under construction as per norms. Disaster Management Plan (DMP) is in place. Recommendations mentioned in the DMP are being followed   |
| v   | First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction  | : Complied.   |
| 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 hearing loss including shifting to non-noisy/ less noisy areas. | : Condition pertains to the operation phase of the project."However, ambient noise monitoring has been carried out. Required Personal Protective Equipment will be provided to the people working in the noisy area |

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| <p>vii Regular monitoring of ambient air ground level concentration of SO<sub>2</sub>, NO<sub>x</sub>, PM<sub>2.5</sub> &amp; PM<sub>10</sub> 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</p> | <p>: Condition pertains to the operation phase of the project."However, ambient air quality monitoring has been carried out through NABL accredited laboratory regularly.</p>  |
| <p>viii 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 healthcare, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.</p>   | <p>: Labourers have been provided housing colony in the out side plant boundary by the EPC contractor with all facilities.</p>   |
| <p>ix 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 Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a>.</p>                              | <p>: Necessary advertisement published on 22.1.2014 in Makkal Kural Tamil daily and Decon chronicle English daily.</p>   |
| <p>x 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.</p>   | <p>: Complied. Copy of the clearance has been sent to District Collector / Tiruvallur, Revenue Divisional Officer/Ponneri, President/Athipattu Panchayat, Tahsildar/Ponneri taluk vide TANGEDCO's Lr. No.30 dated 04.02.2016.Copy of the Environmental Clearance was uploaded in the TNEB's website.</p> |

- xi 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. : Complied.
- xii 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 email. : Condition pertains to the operation phase of the project. Hence, will be taken up after commissioning."
- xiii The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, 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, Ministry of Environment and Forests : Complied.



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| <p>xiv Regional Office of the Ministry of Environment &amp; Forests 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 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 NO<sub>x</sub> (from stack &amp; ambient air) shall be displayed at the main gate of the power plant</p> | <p>: Environmental Impact Assessment and Environment Management Plan already submitted and will be complied in respect to additional information.</p>  |
| <p>xv Separate funds 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 purposes and year wise expenditure should be reported to the Ministry</p>   | <p>: Noted.</p>  |
| <p>xvi 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 date of start of land development work and commissioning of plant.</p>  | <p>: Administrative approval accorded vide TANGEDCO Proceedings No.51, dt. 06.05.2011. LOA issued to the EPC contractor M/s BHEL on 27.09.2014. Date of commissioning of the plant will be informed later.</p> |
| <p>xvii 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.</p>  | <p>: Full co-operation is being extended</p>   |

- 5 The Ministry of Environment and Forests : Noted.  
reserves the rights to revoke the clearance  
if conditions stipulated are not implemented  
to the satisfaction of the Ministry may also  
impose additional environmental conditions  
or modify the existing ones, if necessary
- 7 Concealing factual data or submission of : Noted.  
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
- 8 In case of any deviation or alteration in the : Will be complied.  
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.
- 9 The above stipulations would be enforced : Noted.  
among others under the Water (Protection  
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 & Trans  
boundary Movement) Rules, 2008 and its  
amendments, the Public Liability Insurance  
Act, 1991 and its amendments.
- 10 Any appeal against this environmental : Noted.  
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.

**ADDITIONAL CONDITIONS**

i Flue-gas Desulphurisation (FGD) shall be installed and the progress ( physical and financial) shall be submitted as part of compliance report

ii The ash pond (about 353 acres) augmentation by increasing the dyke height by 6m to accommodate additional & unutilised ash generated from 2x660MW Ennore SEZ TPP shall have all adequate environmental and safety measures such as HDPE liner, high concentration slurry disposal system, ash water recycling system, dyke stability measures, and minimum distance of 500m from the water bodies.

iii The safety and structural stability of the ash pond is to be ascertained once in three years by reputed agency which has expertise in the field of geo-technical aspects, to avoid breaching as Ennore creek is less than 1km from the said ash pond.

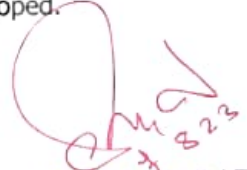
iv Greenbelt consisting of three tiers of plantation of native species of at least 20m width around the periphery of the ash pond (353 acres) shall be developed.

MoEF letter no. J-13012/36/2010-IA II (T) dated 09.04.2021, Validity Extension up to 31.12.2023  
Noted.

The existing ash pond of NCTPS-I (about 353 acres) augmentation by increasing the dyke height by 6m to accommodate additional & unutilised ash generated from 2x660MW Ennore SEZ TPP shall have all adequate environmental and safety measures such as HDPE liner is under consultancy by M/s.IIT Madras. Report is expected shortly. Action is being taken for providing high concentration slurry disposal system, ash water recycling system.

Noted.

Will be developed.

  
**CHIEF ENGINEER / ELECTRICAL**  
**Ennore SEZ Thermal Power Project**  
**TANGEDCO, Voyalur-601 203.**

**DESCRIPTIVE REPORT ON STATUS OF COMPLIANCE TO THE CONDITIONS OF THE ENVIRONMENTAL CLEARANCE AND ENVIRONMENTAL MANAGEMENT- For the period ending 30.06.2023**

**Subject:** 2x660 MW Ennore SEZ Coal based Super critical Thermal Power Project

**Reference:** MoEF letter F.No.11-80/2011-IA.III dated 01.01.2014  
 MoEF letter no. J-13012/36/2010-IA II (T) dated 07.01.2014  
 Amendment in EC Lr. No. J-13012/36/2010-IA-II(T) DT. 14.08.2018( For revised capacity 2x660 MW)  
 MoEF letter no. J-13012/36/2010-IA II (T) dated 04.02.2019, Validity Extention up to 06.01.2021  
 MoEF letter no. J-13012/36/2010-IA II (T) dated 09.04.2021, Validity Extention up to 31.12.2023

**For CRZ**

**5. SPECIFIC CONDITIONS:**

SL No.	CONDITIONS	COMPLIANCE STATUS
i	"Consent for Establishment" shall be obtained from State Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.	Obtained with validity till 31.12.2023
ii	The temperature of outfall will be about 3.3 C higher than ambient conditions, the salinity will be 1.53 g/l at outfall.	Condition pertains to the operation phase of the project. Hence, will be taken up after commissioning
iii	All the conditions/recommendations stipulated by the Tami Nadu Costal Zone Management Authority (TNCZMA) of letter no.15686/EC3/2011-2 dated 04.10.2011, shall be complied with.	Will be complied
iv	The coal will be transported from Ennore Port through closed conduit coal conveyor of 4.5 km.	Noted
v	The conveyor route shall not pass through any habitation as presented and assured before the committee.	Noted
vi	Explore to develop Green belt along the conveyor.	Noted
vii	The marine discharge shall meet the norms of Environment (Protection) Rules, 1986 and its amendments.	Condition pertains to the operation phase of the project. Hence, will be taken up after commissioning
viii	Periodical monitoring of the sea water at the discharge point shall be done and report be submitted along with the six monthly monitoring reports.	Condition pertains to the operation phase of the project. Hence, will be taken up after commissioning

- ix The proponent shall submit Bank Guarantee : Noted  
to the PCB for the amount to be fixed by the  
SPCB so as to impose accountability to meet  
the standards.
- x All the recommendation of the EMP shall be : Noted  
complied with letter and spirit. All the  
mitigation measure submitted in the EIA  
report shall be prepared in a matrix format  
and the compliance for each mitigation plan  
shall be submitted to MoEF along with half  
yearly compliance report to MoEF – RO
- xi Construction activity shall be carried out : Noted  
strictly as per the provisions of CRZ  
Notification, 2011. No construction work  
other than those permitted in Coastal  
Regulation Zone Notification shall be carried  
out in Coastal Regulation Zone area.
- xii The project shall be executed in such a : Noted  
manner that there shall not be any  
disturbance to the fishing activity.
- xiii It shall be ensured that there is no : Noted  
displacement of people, houses of fishing  
activity as a result of the project.
- xiv The project proponent shall set up separate : Arrangement is being made to form a  
environmental management cell for effective separate Environment Monitoring cell at site.  
implementation of the stipulated  
environmental safeguards under the  
supervision of a Senior Executive.
- xv The funds earmarked for environment : Noted  
management plan shall be included in the  
budget and this shall not be diverted for any  
other purposes.

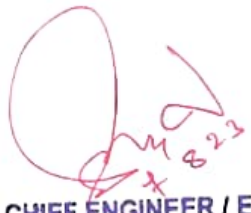
#### **6. GENERAL CONDITIONS:**

- i Appropriate measure must be taken while : Noted  
undertaking digging activities to avoid any  
likely degradation of water quality.
- ii Full support shall be extended to the officers : Noted  
of this Minister/Regional Office at Bengaluru  
by the project proponent during inspection  
of the project for monitoring purpose by  
furnishing full details and action plan  
including action taken reports in respect of  
mitigation measures and other  
environmental protection activities.

- iii A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bengaluru regarding the implementation of the stipulated conditions. : Noted
- iv Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with. : Noted
- v The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry. : Noted
- vi In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests. : Noted
- vii The project proponents shall 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. : Administrative approval accorded vide TANGEDCO Proceedings No.51, dt. 06.05.2011. LOA issued to the EPC contractor M/s BHEL on 27.09.2014. Date of commissioning of the plant will be informed later.
- viii A copy of the clearance letter shall be marked to concerned Panchayat/local NGO, if any, from whom any suggestion/representation has been made received while processing the proposal. : Complied. Copy of the clearance has been sent to District Collector / Tiruvallur, Revenue Divisional Officer/Ponneri, President/Athipattu Panchayat, Tahsildar/Ponneri Taluk vide TANGEDCO's Lr. No.30 dated 04.02.2016. Copy of the Environmental Clearance was uploaded in the TNEB's website.
- ix State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's Office/Tehsildar's office for 30 days. : Noted
- 7 These stipulations would be enforced among others under the provisions of water (Prevention and Control of pollution) Act 1974. The Air (Prevention and Control of pollution) Act, 1981 the Environment (Protection) Act, 1986, the public Liability (Insurance) Act 1991 and EIA Notification 1994, including the amendments and rules made thereafter. : Noted

- 8 All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities. : Noted
- 9 The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forest at <http://www.envfor.nic.in>. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Bangalore. : Necessary advertisement published on 22.1.2014 in Makkal Kural Tamil daily and Decon chronicle English daily.
- 10 This clearance is subject to final order of the Hon"ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project. : Noted
- 11 Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website. : Noted
- 12 Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010. : Noted
- 13 A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla 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. : Complied Copy of the clearance has been sent to District Collector / Tiruvallur, Revenue Divisional Officer/Ponneri, President/Athipattu Panchayat, Tahsildar/Ponneri taluk vide TANGEDCO's Lr. No.30 dated 04.02.2016.Copy of the Environmental Clearance was uploaded in the TNEB's website.

- 14 The proponent shall upload the status of compliance of the stipulated 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. : Complied.
- 15 The environmental 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 Clearance conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail. : Condition pertains to the operation phase of the project. Hence, will be taken up after commissioning



**CHIEF ENGINEER / ELECTRICAL**  
**Ennore SEZ Thermal Power Project**  
**TANGEDCO, Voyalur-601 203.**



**DESCRIPTIVE REPORT ON STATUS OF COMPLIANCE TO THE CONDITIONS OF  
THE ENVIRONMENTAL CLEARANCE AND ENVIRONMENTAL MANAGEMENT- For  
the period ending 30.06.2023**

**Subject:** 2x660 MW Ennore SEZ Coal based Super critical Thermal Power Project at Ah dyke of North Chennai Thermal Power Station(Kattupalli)- EPC cum Debt Finance

**Reference:** MoEF letter no. J-13012/36/2010-IA II (T) dated 07.01.2014

Amendment in EC Lr. No. J-13012/36/2010-IA-II(T) DT. 14.08.2018( For revised capacity 2x660 MW)

**AIR** Consent Order No. 6217 dated 11.03.2014

Proc No. T4/F-8246/TNPCB/RL/TVLR/W/2013 DATED 11.03.2014

**AIR** Consent Order No.160324464505 dated 29.06.2016

Proc No.T7/TNPCB/F.0664AMB/RL/AMB/A/2016 DATED 29.06.2016

**AIR** Consent Order No.2002229941522 dated 26.11.2020

Proc No. T2/TNPCB/F.0423GMP/RL/GMP/A/2020 DATED 26.11.2020

**AIR** Consent Order No.2203236533208 dated 10.05.2022

Proc No. T2 /TNPCB/F.0423GMP /RL/GMP/A/2022 DATED 10.05.2022

**4) A. SPECIAL CONDITIONS:**

SL No.	CONDITIONS	:	COMPLIANCE STATUS
ii	Harnessing Solar power within the premises of the plant particularly at available roof tops shall be undertaken and status of the implementation shall be submitted periodically to the Regional office of the Ministry	:	Provision for harnessing of solar power has been made in the project scope.
iii	No transportation of imported coal by road shall be permitted	:	Noted
iv	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.7% and 12% respectively at any given time. In case of variation of coal quality at any point of time, fresh reference shall be made to the Ministry for suitable amendments to environmental clearance condition where ever necessary	:	Will be taken up after commissioning

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| v Bi-flue stack of 275 m height shall be provided with continuous on line monitoring equipments for Sox, Nox and particulate matter PM2 & PM10. Exit velocity of flue gases shall not be less than 22 m/sec. Mercury emissions from stack shall also be monitored on periodic basis  | : Bi flue stack 275 m height will be provided/Monitoring condition pertains to the operation phase of the project. Hence, will be taken up after commissioning |
| vi FGD shall be installed for both the units of 660 MW each  | : Action is being taken to install FGD   |
| vii High efficiency Electrostatic precipitators (ESP's) shall be installed to ensure that particulate emission from the proposed plant does not exceed 50 mg/Nm <sup>3</sup>   | : ESP were designed and erection under progress to meet the MOEF norms of particulate emission from the proposed plant less than 50mg/Nm <sup>3</sup>          |
| viii 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.   | : All dust extraction system water spray in coal handling and ash handling were taken in to account during execution itself and work is under progress.        |
| ix Utilisation of 100% Fly ash generated be made from day one of operation of the plant. Status of implementation shall be reported to the Regional office of the Ministry from time to time.  | : "Condition pertains to the operation phase of the project. Hence, will be taken up after commissioning."   |
| x Fly ash shall not be used for agricultural purpose. No mine void filling will be undertaken as an option for ash utilization without adequate lining of mine with suitable media such that no leachage 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. | : "Condition pertains to the operation phase of the project and will be complied."   |

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| <p>xi Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unused fly ash shall be disposed off in the ash pond in the form of slurry form. Mercury and other heavy metals (As, Hg, Cr,Pb, etc.,) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed off in low lying area.</p> | <p>: "Condition pertains to the operation phase of the project and will be complied."</p>  |
| <p>xii Ash pond shall be lined with HDPE/LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.</p>   | <p>: The ash dyke is already constructed over a impermeable layer of clay and hence no leachate will take place at any point of time. Adequate safety measures will also be implemented to protect the ash dyke from getting breached</p>                                    |
| <p>xiii 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.</p>   | <p>: "Condition pertains to the operation phase of the project". Hence will be taken up after commissioning."</p>  |
| <p>xiv A long term study of radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute. Therebyafter 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.</p>   | <p>: "Condition pertains to the operation phase of the project. Hence, will be taken up after commissioning."</p>  |
| <p>xv Continuous monitoring for heavy metals in and around the existing ash pond area shall be immediately carried out by reputed institutes like IIT, Chennai.</p>  | <p>: study on the quality of the ground and surface water was carried out by Anna University during 2015 at various locations and found that the heavy metals are within the allowable limit .However study will be again carried out after commissioning of Power plant</p> |
| <p>xvi 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.</p>   | <p>: Noted</p>   |

- xvii COC of atleast 1.3 shall be adopted.

: "Condition pertains to the operation phase of the project. Hence, will be taken up after commissioning."
- xviii A well designed rain water harvesting system shall be put in place which shall comprise of rain water collection from the built up and open area in the plant premises. Action plan and road map for implementation shall be submitted to the Regional Office of Ministry

: Rain water harvesting system will be adopted and details will be furnished.
- xix Hydrogeology of the area shall be reviewed annually from an institute / Organisation of repute to assess impact of surface water and ground regime (especially around ash dyke. In case any deterioration is observed specific mitigation measures, shall be undertaken and reports / data of water quality monitored regularly and maintained shall be submitted to the Regional Office of the Ministry

: Will be taken up after commissioning.
- xx Waste waters generated from the plant shall be treated before discharge to comply limits prescribed by the SPCB/CPCB

: Will be taken up after commissioning.
- xxi 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

: Additional soil for leveling of the proposed site is being met from within the site to the maximum extent possible.
- xxii Green Belt consisting of three tiers of plantations of native species 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 less than 2500 per ha with survival rate not less than 80 %

: Will be complied.

- xxiii A common **Green Endowment Fund** shall be created and the interest earned out of it shall be used for the development and management of green cover of the area.
- : Green Endowment fund will be allotted for the development of green cover. Plantation of tree saplings and maintenance works for the period of six months around this project area was carried out in Mouthambedu village, Chepakkam village, Tamil Koranjur village, Katupalli village and Oornambedu village. Maintenance of existing tree saplings for further 6 months are also completed in Mouthambedu, Chepakkam and Tamil Koranjur village.
- xxiv The project proponent shall also adequately contribute in the development of the neighbouring villages. Special package with implementation schedule for free potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner
- : CSR fund of 37 crore is allotted to the social welfare activities of the neighbourhood villages as a capital cost and revenue expenditure for every year maintenance will also be allotted. Total value of CSR works done so far Rs.16.24 lakhs
- xxv An amount of Rs 37.00 Crores shall be earmarked as one time capital cost for, CSR programme. Subsequently a recurring expenditure of Rs 7.40 Crores per annum till the life of the plant shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within one month of the issue of this letter along with road map for implementation.
- : Total value of CSR works done so far Rs.16.24 lakhs. It has been decided to carry out further CSR works by getting the details of works to be attended in nearby villages every year from the District Collector/Tiruvallur. It is proposed to transfer the fund to District Administration for carrying out CSR activities

xxvi CSR scheme should address Public Hearing issues and shall be undertaken based on need based assessment in and around the villages within 5.0 km of the site and in constant consultation with the village Panchayat and the District Administration. As part of CSR prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken. Development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes. Vocational training programme for possible self employment and jobs shall be imparted to identify villagers free of cost.

: Total value of CSR works done so far Rs.16.24 lakhs. It has been decided to carry out further CSR works by getting the details of works to be attended in nearby villages every year from the District Collector/Tiruvallur . It is proposed to transfer the fund to District Administration for carrying out CSR activities.

xxvii It shall be ensured that in- built monitoring mechanism for the CSR schemes identified is in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time

: CSR works is being done in consultation with Madras School of Social works and District Administration regularly

xxviii An Environmental Cell shall be created at the project site itself and shall be headed by an officer of the company of appropriate seniority and qualification. It shall be ensured that the head of the Cell shall directly report to the Head of the Organization

: Arrangement is being made to form a separate Environment Monitoring cell at site.

#### **4) 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.

: Condition pertains to the operation phase of the project and will be complied

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| <p>ii A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation</p>  | <p>: STP construction work will commence shortly and treated sewage water will be used for raising greenbelt/plantation.</p>   |
| <p>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</p>  | <p>: Condition pertains to the operation phase of the project. Hence, will be taken up after commissioning</p>   |
| <p>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</p>  | <p>: HSD and HFO tank are under construction as per norms. Disaster Management Plan (DMP) is in place. Recommendations mentioned in the DMP are being followed</p>   |
| <p>v First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction</p>   | <p>: Complied.</p>   |
| <p>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 hearing loss including shifting to non-noisy/ less noisy areas.</p> | <p>: Condition pertains to the operation phase of the project."However, ambient noise monitoring has been carried out. Required Personal Protective Equipment will be provided to the people working in the noisy area</p> |

- vii Regular monitoring of ambient air ground level concentration of SO<sub>2</sub>, NO<sub>x</sub>, PM<sub>2.5</sub> & PM<sub>10</sub> 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 : Condition pertains to the operation phase of the project."However, ambient air quality monitoring has been carried out through NABL accredited laboratory regularly.
- viii 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 healthcare, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project. : Labourers have been provided housing colony in the out side plant boundary by the EPC contractor with all facilities.
- ix 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 Website of the Ministry of Environment and Forests at <http://envfor.nic.in>. : Necessary advertisement published on 22.1.2014 in Makkal Kural Tamil daily and Decon chronicle English daily.



- x 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. : Complied. Copy of the clearance has been sent to District Collector / Tiruvallur, Revenue Divisional Officer/Ponneri, President/Athipattu Panchayat, Tahsildar/Ponneri taluk vide TANGEDCO's Lr. No.30 dated 04.02.2016. Copy of the Environmental Clearance was uploaded in the TNEB's website.
- xi 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. : Complied.
- xii 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 email. : Condition pertains to the operation phase of the project. Hence, will be taken up after commissioning."

- xiii The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, 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, Ministry of Environment and Forests : Complied.
- xiv Regional Office of the Ministry of Environment & Forests 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 shall be forwarded to the Regional Office for their use during monitoring. Project proponent will upload the compliance status in their website and up-date the same from time to time at least six monthly basis. Criteria pollutants levels including NO<sub>x</sub> (from stack & ambient air) shall be displayed at the main gate of the power plant : Environmental Impact Assessment and Environment Management Plan already submitted and will be complied in respect to additional information.
- xv Separate funds 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 purposes and year wise expenditure should be reported to the Ministry : Noted.

- xvi 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 date of start of land development work and commissioning of plant. : Administrative approval accorded vide TANGEDCO Proceedings No.51, dt. 06.05.2011. LOA issued to the EPC contractor M/s BHEL on 27.09.2014. Date of commissioning of the plant will be informed later.
- xvii 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. : Full co-operation is being extended
- 5 The Ministry of Environment and Forests reserves the rights to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry may also impose additional environmental conditions or modify the existing ones, if necessary : Noted.
- 7 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 : Noted.
- 8 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. : Will be complied.

9 The above stipulations would be enforced : Noted.  
among others under the Water  
(Protection 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 & Trans boundary Movement)  
Rules, 2008 and its amendments, the  
Public Liability Insurance Act, 1991 and  
its amendments.

10 Any appeal against this environmental : Noted.  
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.

### **AIR**

6 The project shall be executed in such a : Noted.  
manner that they shall not be any  
disturbance to the local fishing activity

7 The unit shall transport the coal from the : Noted.  
coal berth to the proposed site through  
pipe conveyors system and it shall not  
create any hindrance to the local public

8 The unit shall obtain permission from : Obtained  
concern department for providing coal  
conveyor line across the Buckingham  
canal and creek areas.

9 The unit shall provide adequate measures : Noted.  
to collect the spillage of coal in the coal  
conveyer line and the same shall be used  
in the plant.

10 The unit shall provide closed covers and : Noted.  
adequate dust collection system for all  
the junction towers to control the coal  
dust.

11 The unit of M/s Ennore Port has to apply : Noted.  
for consent of the Tamil Nadu Pollution  
control Board for the proposed coal berth  
seperately.

- 12 The unit shall store the coal in a completely RCC paved area with the provision of leachate collection system : Noted.
- 13 The coal storage yard is provided with wind barriers of sufficient height. The height of the coal piles shall be lower than that of the wind barrier. : Noted.
- 14 The unit shall provide adequate dust suppression system arrangements such as automatic water spraying and keeping the surface of the stock pile wet at all times to arrest the fugitive emissions in the coal stock pile area. : Noted.
- 15 The stacker and reclaimer shall be provided with adequate dust suppression system. : Noted.
- 16 The coal crusher shall be covered with metal enclosure and provided with suitable dust suppression and bag filter for the control of coal dust. : Noted.
- 17 The unit shall provide compound wall all around the unit so as to avoid carry over of coal fines to the adjacent areas. : Noted.
- 18 The unit shall utilize the treated effluent for water sprinkling for coal dust suppression. : Noted.
- 19 The unit shall provide adequate capacity of fly ash storage silo with pneumatic vacuum conveying system for the transfer of fly ash from the ESP : Noted.
- 20 The unit shall store the bottom ash only in the storage silo and to dispose off for further beneficial use. : Noted.
- 21 The unit shall provide bitumen top internal roads to mitigate the fugitive emission. : Noted.

- 22 The unit shall use the ash dykes only in emergencies. The bunds of the ash dyke shall be made with sufficient strength so as to avoid breaching of beyond at any point of time. The unit shall provide green belt all around the ash dyke to control dust emission from the pond : Noted.
- 23 The unit shall provide adequate air pollution control measures to contain the dust during the loading of fly ash in the trucks : Noted.
- 24 The ash and sulphur content of the imported coal to be used for the proposed power plant shall not exceed 12% and 0.7 -0.8% : Noted.
- 25 The unit shall provide high efficiency electro static precipitator so as to achieve the particulate emission level below 50 mg/Nm<sup>3</sup> prescribed by the Board. : Noted.
- 26 The unit shall provide Bi-flue stack of 275 m height so as to bring the quality of ambient air to satisfy the standards prescribed by the Board : Noted.
- 27 The unit shall provide FGD for both the unit of 660 MW capacity : Noted.
- 28 The unit shall provide low Nox burners for the control of Nox emission and ensure staged combustion to contain the level of Nox to satisfy the standards prescribed by the board. : Noted.
- 29 A long term study of radio activity and heavy metals content on the coal to be used shall be carried out through a reputed institute : Noted.
- 30 Continuous monitoring of heavy metals in and around the existing ash pond area shall be carried out by reputed institute : Noted.

- 31 The unit shall provide storage facility for the auxiliary fuel such as LDO, LSHS, HFO if any consultation with the department of explosives and Disaster Management plan shall be prepared and furnished to the board. : Noted.
- 32 The unit shall provide online continuous stack monitors with data uploading facility for the parameters SPM, SO<sub>2</sub>, NO<sub>x</sub> and CO for the boiler emission and shall connect it to the Care Air Centre of the TNPCB : Noted.
- 33 The unit shall comply with the fly ash Notification 1999 and as amended. : Noted.
- 34 The unit shall ensure that the units activity shall not obstruct the free flow of water in Buckingham canal or Ennore creek both in construction and operational phase of the power plant. : Noted.
- 36 The unit shall provide 6 number of permanent AAQ monitoring station covering all direction of the unit and to furnish the report to the Board. : Noted.
- 37 Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit : Noted.
- 38 The unit shall provide suitable acoustic measures including special foundation for all the noise generating machines so as to comply with ambient noise level standards. : Noted.
- 39 The unit shall ensure that the internal roads shall be paved with concrete/bitumen and provided with water sprinkling arrangements to arrest dust and the speed of vehicles less than 10 km/hour so as to ensure ambient air quality standards. : Noted.

40 The unit shall have the Environmental Management cell with full fledged laboratory facilities and qualified trained staff with environmental policy for regular monitoring of stack emission and ambient air quality and implementation of environmental management system and to preserve the ecology of that locality. : Noted.

41 The unit shall develop green belt consists of 3 tier plantation around the premises for adequate width with native species having thick canopy cover at the rate of 400 trees per hect. in consultation with local DFO : Noted.

#### **4 Additional Conditions**

AIR Consent Order  
No.2002229941522 dated 26.11.2020  
Proc No.  
T2/TNPCB/F.0423GMP/RL/GMP/A/202  
0 DATED 26.11.2020

1 The unit shall comply with the condition stipulated in the Environmental Clearance accorded to the unit vide MoEF & CC dated 07.01.2014 and amended further dated 14.08.2018 & 04.02.2019 under schedule1(d) of the EIA Notification dated 14.09.2006 as amended. Noted.

2 The unit shall comply with the condition stipulated in the CRZ clearance accorded to the unit vide MoEF & CC dated 07.01.2014 under the CRZ notification 2011 as amended. Noted.

3 The unit shall comply with the special conditions stipulated in the CTE issued dated 11.03.2014 under the Water & Air Acts and additional conditions stipulated in the CTE Extension issued dated 29.06.2016. Noted.

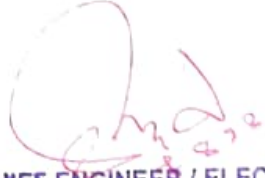


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| 4  | The unit shall comply with the emission standards prescribed for Thermal Power plants as per Ministry's Notification S.O.3305(E) dated 07.12.2015,G.S.R.593(E) dated 28.06.2018 and as amended.                                 | Noted. |
| 5  | The unit shall comply with MoEF & CC Notifications on Fly Ash Utilisation S.O.763(E) dated 14.09.1999, S.O.979(E) dated 27.08.2003, S.O.2804(E) dated 03.11.2009, S.O. 254(E) dated 25.01.2016                                  | Noted. |
| 6  | The unit shall install Flue Gas Desulphurization (FGD) System based on Lime/Ammonia dosing to capture Sulphur in the fule gases to meet the SO2 emissions standard of 100mg/Nm3   | Noted. |
| 7  | The unit shall install either selective calaytic reduction (SCR) system or the selective non-catalytic reduction (SCNR) system or LOW NOX Burners with Over fire air (OFA) system to achieve NOx emission standard of 100mg/Nm3 | Noted. |
| 8  | The unit shall install High efficiency electrostatic precipitators (ESPs) in each unit to ensure the particulate matter(PM) emission to meet the stipulated standard 30 mg / M3   | Noted. |
| 9  | The unit shall provide stack of prescribed height 275 m with continuous online emission monitoring instruments for Sox Nox and particulate matter which shall to be connected with TNPCB CAC and CPCB server                    | Noted. |
| 10 | Exit velocity of flue gases shall not be less than 20- 25 m/sec. Mecury emission from stack shall also be monitored periodically which shall be below 0.03 mg/NM3   | Noted. |

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| 11 | The unit shall set up continuous ambient air quality monitoring system(CAAQMS) to monitor commom/criteria pollutants from the flue gases suych as PM10, PM2.5,So2,NOx within slush outside the plant area atleast minimum four locations covering upwind and downwind directions at an angle of 120 degree each  | Noted. |
| 12 | The unit shall install adequate dust extration/ supression system in coal handling, ash handling areas and materials transfer point to control fugitive elements.  | Noted. |
| 13 | The unit shall install appropriate air pollutin control measures(dust extration system/dust supression system) at all dust geneating sources including sufficient water sprinkling arrangements at various locations. Viz. roads, excavation sites, cursher plants, transfer points,loading and unloding areas, etc.,  | Noted. |
| 14 | Natrural draft closed cycle cooling system shall be set up with minimum cycles of concentration (COC) of 1.5 or above as the plant propose to use sea water.   | Noted. |
| 15 | The CTE-Revised is granted to the unit for the incorporation of the details such as survey number, land area, coal requirement, ash generation as mentioned in the Environmental Clearance issued vide MOEFCC No.J-13012/36/2020-IA-II(T) dated 14.08.2018. The unit shall obtain amendment in the Enviroment Clearance for changes if any on such details and then approach the TNPCB for necessary amendment in the CTE-Revised granted. | Noted. |

- 16 In case of revision of consent fee by the Government the unit shall remit the difference in amount within one month from date of notification. Failing to remit the consent fee, this consent order will be withdrawn without any notice and further action will be initiated against the unit as per law

Noted.



**CHIEF ENGINEER / ELECTRICAL**  
**Ennore SEZ Thermal Power Project**  
**TANGEDCO, Vayalur-601 203.**

**DESCRIPTIVE REPORT ON STATUS OF COMPLIANCE TO THE CONDITIONS OF  
THE ENVIRONMENTAL CLEARANCE AND ENVIRONMENTAL MANAGEMENT- For  
the period ending 30.06.2023**

**Subject:** 2x660 MW Ennore SEZ Coal based Super critical Thermal Power  
Project at Ah dyke of North Chennai Thermal Power  
Station(Kattupalli)- EPC cum Debt Finance

**Reference** MoEF letter no. J-13012/36/2010-IA II (T) dated 07.01.2014  
Amendment in EC Lr. No. J-13012/36/2010-IA-II(T) DT. 14.08.2018(  
For revised capacity 2x660 MW)

**WATER** Consent Order No. 6278 dated 11.03.2014  
Proc No. T4/F-8246/TNPCB/RL/TVLR/W/2013 DATED 11.03.2014

**WATER** Consent Order No.160314464505 dated 29.06.2016  
Proc No. T7/TNPCB/F.0664AMB/RL/AMB/W/2016 DATED 29.06.2016

**WATER** Consent Order No.2002129941522 dated 26.11.2020  
Proc No. T2/TNPCB/F.0423GMP/RL/GMP/W/2020 DATED 26.11.2020

**WATER** Consent Order No.2203136533208 dated 10.05.2022  
Proc No. T2/TNPCB/F.0423GMP/RL/GMP/W/2022 DATED 10.05.2022

**4) A. SPECIAL CONDITIONS:**

SL No.	CONDITIONS	: COMPLIANCE STATUS
ii	Harnessing Solar power within the premises of the plant particularly at available roof tops shall be undertaken and status of the implementation shall be submitted periodically to the Regional office of the Ministry	: Provision for harnessing of solar power has been made in the project scope.
iii	No transportation of imported coal by road shall be permitted	: Noted
iv	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.7% and 12% respectively at any given time. In case of variation of coal quality at any point of time, fresh reference shall be made to the Ministry for suitable amendments to environmental clearance condition where ever necessary	: Will be taken up after commissioning

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| <p>v Bi-flue stack of 275 m height shall be provided with continuous on line monitoring equipments for Sox, Nox and particulate matter PM2 &amp; PM10. Exit velocity of flue gases shall not be less than 22 m/sec. Mercury emissions from stack shall also be monitored on periodic basis</p>   | <p>: Bi flue stack 275 m height will be provided/Monitoring condition pertains to the operation phase of the project. Hence, will be taken up after commissioning</p> |
| <p>vi FGD shall be installed for both the units of 660 MW each</p>   | <p>: Action is being taken to install FGD</p>   |
| <p>vii High efficiency Electrostatic precipitators (ESP's) shall be installed to ensure that particulate emission from the proposed plant does not exceed 50 mg/Nm<sup>3</sup></p>   | <p>: ESP were designed and erection under progress to meet the MOEF norms of particulate emission from the proposed plant less than 50mg/Nm<sup>3</sup></p>           |
| <p>viii 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.</p>  | <p>: All dust extraction system water spray in coal handling and ash handling were taken in to account during execution itself and work is under progress.</p>        |
| <p>ix Utilisation of 100% Fly ash generated be made from day one of operation of the plant. Status of implementation shall be reported to the Regional office of the Ministry from time to time.</p>   | <p>: "Condition pertains to the operation phase of the project. Hence, will be taken up after commissioning."</p>   |
| <p>x Fly ash shall not be used for agricultural purpose. No mine void filling will be undertaken as an option for ash utilization without adequate lining of mine with suitable media such that no leachage 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</p> | <p>: "Condition pertains to the operation phase of the project and will be complied."</p>   |

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| <p>xi Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unused fly ash shall be disposed off in the ash pond in the form of slurry form. Mercury and other heavy metals (As, Hg, Cr,Pb, etc.,) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed off in low lying area.</p> | <p>: "Condition pertains to the operation phase of the project and will be complied."</p>  |
| <p>xii Ash pond shall be lined with HDPE/LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.</p>   | <p>: The ash dyke is already constructed over a impermeable layer of clay and hence no leachate will take place at any point of time. Adequate safety measures will also be implemented to protect the ash dyke from getting breached</p>                                    |
| <p>xiii 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.</p>   | <p>: "Condition pertains to the operation phase of the project". Hence will be taken up after commissioning."</p>  |
| <p>xiv A long term study of radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute. Therebyafter 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.</p>   | <p>: "Condition pertains to the operation phase of the project. Hence, will be taken up after commissioning."</p>  |
| <p>xv Continuous monitoring for heavy metals in and around the existing ash pond area shall be immediately carried out by reputed institutes like IIT, Chennai.</p>  | <p>: study on the quality of the ground and surface water was carried out by Anna University during 2015 at various locations and found that the heavy metals are within the allowable limit .However study will be again carried out after commissioning of Power plant</p> |

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| xvi 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.  | : Noted   |
| xvii COC of atleast 1.3 shall be adopted.  | : "Condition pertains to the operation phase of the project. Hence, will be taken up after commissioning."            |
| xviii A well designed rain water harvesting system shall be put in place which shall comprise of rain water collection from the built up and open area in the plant premises. Action plan and road map for implementation shall be submitted to the Regional Office of Ministry  | : Rain water harvesting system will be adopted and details will be furnished.   |
| xix Hydrogeology of the area shall be reviewed annually from an institute / Organisation of repute to assess impact of surface water and ground regime (especially around ash dyke. In case any deterioration is observed specific mitigation measures, shall be undertaken and reports / data of water quality monitored regularly and maintained shall be submitted to the Regional Office of the Ministry | : Will be taken up after commissioning.   |
| xx Waste waters generated from the plant shall be treated before discharge to comply limits prescribed by the SPCB/CPCB  | : Will be taken up after commissioning.   |
| xxi 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   | : Additional soil for leveling of the proposed site is being met from within the site to the maximum extent possible. |

- xxii Green Belt consisting of three tiers of plantations of native species 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 less than 2500 per ha with survival rate not less than 80 % : Will be complied.
- xxiii A common **Green Endowment Fund** shall be created and the interest earned out of it shall be used for the development and management of green cover of the area. : Green Endowment fund will be allotted for the development of green cover. Plantation of tree saplings and maintenance works for the period of six months around this project area was carried out in Mouthambedu village, Chepakkam village, Tamil Koranjur village, Katupalli village and Oornambedu village. Maintenance of existing tree saplings for further 6 months are also completed in Mouthambedu, Chepakkam and Tamil Koranjur village.
- xxiv The project proponent shall also adequately contribute in the development of the neighbouring villages. Special package with implementation schedule for free potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner : CSR fund of 37 crore is allotted to the social welfare activities of the neighbourhood villages as a capital cost and revenue expenditure for every year maintenance will also be allotted. Total value of CSR works done so far Rs.16.24 lakhs



xxv An amount of Rs 37.00 Crores shall be earmarked as one time capital cost for, CSR programme. Subsequently a recurring expenditure of Rs 7.40 Crores per annum till the life of the plant shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within one month of the issue of this letter along with road map for implementation.

: Total value of CSR works done so far Rs.16.24 lakhs. It has been decided to carry out further CSR works by getting the details of works to be attended in nearby villages every year from the District Collector/Tiruvallur. It is proposed to transfer the fund to District Administration for carrying out CSR activities

xxvi CSR scheme should address Public Hearing issues and shall be undertaken based on need based assessment in and around the villages within 5.0 km of the site and in constant consultation with the village Panchayat and the District Administration. As part of CSR prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken. Development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes. Vocational training programme for possible self employment and jobs shall be imparted to identify villagers free of cost.

: Total value of CSR works done so far Rs.16.24 lakhs. It has been decided to carry out further CSR works by getting the details of works to be attended in nearby villages every year from the District Collector/Tiruvallur . It is proposed to transfer the fund to District Administration for carrying out CSR activities.

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| xxvii  | It shall be ensured that in- built monitoring mechanism for the CSR schemes identified is in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time | : | CSR works is being done in consultation with Madras School of Social works and District Administration regularly |
| xxviii | An Environmental Cell shall be created at the project site itself and shall be headed by an officer of the company of appropriate seniority and qualification. It shall be ensured that the head of the Cell shall directly report to the Head of the Organization   | : | Arrangement is being made to form a separate Environment Monitoring cell at site.                                |

**4) B. GENERAL CONDITIONS:** :

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| 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.   | : | Condition pertains to the operation phase of the project and will be complied                                       |
| ii  | A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation  | : | STP construction work will commence shortly and treated sewage water will be used for raising greenbelt/plantation. |
| 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 | : | Condition pertains to the operation phase of the project. Hence, will be taken up after commissioning               |

- 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 : HSD and HFO tank are under construction as per norms. Disaster Management Plan (DMP) is in place. Recommendations mentioned in the DMP are being followed
- v First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction : Complied.
- 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 hearing loss including shifting to non-noisy/ less noisy areas. : Condition pertains to the operation phase of the project."However, ambient noise monitoring has been carried out. Required Personal Protective Equipment will be provided to the people working in the noisy area
- vii Regular monitoring of ambient air ground level concentration of SO<sub>2</sub>, NO<sub>x</sub>, PM<sub>2.5</sub> & PM<sub>10</sub> 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 : Condition pertains to the operation phase of the project."However, ambient air quality monitoring has been carried out through NABL accredited laboratory regularly.

- viii 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 healthcare, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

: Labourers have been provided housing colony in the out side plant boundary by the EPC contractor with all facilities.
- ix 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 Website of the Ministry of Environment and Forests at <http://envfor.nic.in>.

: Necessary advertisement published on 22.1.2014 in Makkal Kural Tamil daily and Decon chronicle English daily.
- x 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.

: Complied. Copy of the clearance has been sent to District Collector / Tiruvallur, Revenue Divisional Officer/Ponneri, President/Athipattu Panchayat, Tahsildar/Ponneri taluk vide TANGEDCO's Lr. No.30 dated 04.02.2016.Copy of the Environmental Clearance was uploaded in the TNEB's website.

- xi The proponent shall upload the status of : Complied.  
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 (PM<sub>2.5</sub> & PM<sub>10</sub>), SO<sub>2</sub>, NO<sub>x</sub>  
(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.
- xii The environment statement for each : Condition pertains to the operation  
financial year ending 31st March in Form- phase of the project. Hence, will be  
V as is mandated to be submitted by the taken up after commissioning.”  
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 email.
- xiii The project proponent shall submit six : Complied.  
monthly reports on the status of the  
implementation of the stipulated  
environmental safeguards to the Ministry  
of Environment and Forests, 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, Ministry of  
Environment and Forests

- xiv Regional Office of the Ministry of Environment & Forests 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 shall be forwarded to the Regional Office for their use during monitoring. Project proponent will upload the compliance status in their website and up-date the same from time to time at least six monthly basis. Criteria pollutants levels including NO<sub>x</sub> (from stack & ambient air) shall be displayed at the main gate of the power plant

: Environmental Impact Assessment and Environment Management Plan already submitted and will be complied in respect to additional information.
  
- xv Separate funds 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 purposes and year wise expenditure should be reported to the Ministry

: Noted.
  
- xvi 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 date of start of land development work and commissioning of plant.

: Administrative approval accorded vide TANGEDCO Proceedings No.51, dt. 06.05.2011. LOA issued to the EPC contractor M/s BHEL on 27.09.2014. Date of commissioning of the plant will be informed later.
  
- xvii 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.

: Full co-operation is being extended

- 5 The Ministry of Environment and Forests : Noted.  
reserves the rights to revoke the  
clearance if conditions stipulated are not  
implemented to the satisfaction of the  
Ministry may also impose additional  
environmental conditions or modify the  
existing ones, if necessary
- 7 Concealing factual data or submission of : Noted.  
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
- 8 In case of any deviation or alteration in : Will be complied.  
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.
- 9 The above stipulations would be : Noted.  
enforced among others under the Water  
(Protection 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 & Trans boundary Movement)  
Rules, 2008 and its amendments, the  
Public Liability Insurance Act, 1991 and  
its amendments.
- 10 Any appeal against this environmental : Noted.  
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.

- 5 The Ministry of Environment and Forests : Noted.  
reserves the rights to revoke the  
clearance if conditions stipulated are not  
implemented to the satisfaction of the  
Ministry may also impose additional  
environmental conditions or modify the  
existing ones, if necessary
- 7 Concealing factual data or submission of : Noted.  
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
- 8 In case of any deviation or alteration in : Will be complied.  
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.
- 9 The above stipulations would be : Noted.  
enforced among others under the Water  
(Protection 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 & Trans boundary Movement)  
Rules, 2008 and its amendments, the  
Public Liability Insurance Act, 1991 and  
its amendments.
- 10 Any appeal against this environmental : Noted.  
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.



## **WATER**

- 4 The unit shall comply with the conditions : Noted.  
stipulated by the Ministry of Environment  
and Forest, GOI in the Environmental  
clearance issued to the unit dt.  
07.01.2014
- 5 The unit shall comply with the conditions : Noted.  
stipulated by the Ministry of Environment  
and Forest, GOI in the Environmental  
clearance issued to the unit dt.  
01.01.2014 under CRZ notification 2011.
- 6 The unit shall ensure that all the : Noted.  
construction activities proposed to be  
carried out for the Thermal power plant  
project comply with provisions contained  
in the CRZ Notification 2011
- 7 The project shall be executed in such a : Noted.  
manner that there shall not be any  
disturbance to the local fishing activity
- 8 The unit shall transport the coal from the : Noted.  
coal berth to the proposed site through  
pipe conveyors system and it shall not  
create any hindrance to the local public
- 9 The unit shall obtain permission from : Noted.  
concern department for providing coal  
conveyor line across the Buckingham  
canal and creek areas.
- 10 The unit shall provide adequate : Noted.  
measures to collect the spillage of coal in  
the coal conveyer line and the same shall  
be used in the plant.
- 11 The unit of M/s Ennore Port has to apply : Noted.  
for consent of the Tamil Nadu Pollution  
control Board for the proposed coal berth  
seperately.

- 12 The unit shall store the coal in a : Noted.  
completely RCC paved area with the  
provision of leachate collection system
- 13 The unit shall collect the leachate in a : Noted.  
collection tank and to reuse the same for  
water sprinkling for dust suppression
- 14 The stacker and reclaimer shall be : Noted.  
provided with adequate dust suppression  
system.
- 15 The unit shall provide compound wall all : Noted.  
around the unit so as to avoid carry over  
of coal fines to the adjacent areas.
- 16 The unit shall provide adequate area of : Noted.  
sludge drying beds for the separation of  
sludge during the pre treatment process  
of the desalination plant.
- 17 The unit shall provide effluent treatment : Noted.  
plant for the treatment of sewage so as  
to treat and to satisfy the standards  
prescribed by the TNPC Board.
- 18 The unit shall provide effluent treatment : Noted.  
plant for the treatment of trade effluent  
so as to treat and to satisfy the  
standards prescribed by the TNPC Board.
- 19 The unit shall not dispose any effluent in : Noted.  
to the creek and or in the Buckingham  
canal under any circumstances.
- 20 The unit shall provide continuous : Noted.  
monitoring system to ascertain the water  
quality including salinity before disposed  
in to Ennore creek.
- 21 The unit shall ensure that the marine eco : Noted.  
system shall not receive any adverse  
effect.

- 22 The unit shall provide ground monitoring : Noted.  
well in and around the project site and to  
collect the water samples periodically  
and to analyze the same in the TNPCB  
laboratory every 3 months.
- 23 The unit shall not use ground water for : Noted.  
their process under any circumstances.
- 24 The unit shall utilize the treated effluent : Noted.  
for water sprinkling for coal dust  
suppression.
- 25 The unit shall provide adequate capacity : Noted.  
of fly ash storage silo with pneumatic  
vacuum conveying system for the  
transfer of fly ash from the ESP
- 26 The unit shall store the bottom ash only : Noted.  
in the storage silo and to dispose off for  
further beneficial use.
- 27 The unit shall provide bitumen top : Noted.  
internal roads to mitigate the fugitive  
emission.
- 28 The unit shall provide ash dyke with : Noted.  
HDPE/LDPE lining of adequate capacity  
with necessary infrastructure facility to  
recycle the ash pond water
- 29 The unit shall use the ash dykes only in : Noted.  
emergencies. The bunds of the ash dyke  
shall be made with sufficient strength so  
as to avoid breaching of bund at any  
point of time. The unit shall provide  
green belt all around the ash dyke to  
control dust emission from the pond
- 30 The ash and sulphur content of the : Noted.  
imported coal to be used for the  
proposed power plant shall not exceed  
12% and 0.7 -0.8%
- 31 The unit shall provide FGD for both the : Noted.  
unit of 660 MW capacity

- 32 A long term study of radio activity and heavy metals content on the coal to be used shall be carried out through a reputed institute : Noted.
- 33 Continuous monitoring of heavy metals in and around the existing ash pond area shall be carried out by reputed institute : Noted.
- 34 The unit shall provide storage facility for the auxiliary fuel such as LDO, LSHS, HFO if any consultation with the department of explosives and Disaster Management plan shall be prepared and furnished to the board. : Noted.
- 35 The unit shall comply with the fly ash Notification 1999 and as amended. : Noted.
- 36 The unit shall ensure that the units activity shall not obstruct the free flow of water in Buckingham canal or Ennore creek both in construction and operational phase of the power plant. : Noted.
- 37 The nature of drainage of the terrain should not be affected by filling low laying areas. : Noted.
- 38 The unit activity shall not affect the marine eco system both in construction and operational phase of the plant : Noted.
- 39 The unit shall ensure that the internal roads shall be paved with concrete/bitumen and provided with water sprinkling arrangements to arrest dust and the speed of vehicles less than 10 km/hour so as to ensure ambient air quality standards. : Noted.
- 40 A well desinged rain water harvesting system shall be adopted so as to recharge ground water : Noted.

- 41 The unit shall have the Environmental Management cell with full fledged laboratory facilities and qualified trained staff with environmental policy for regular monitoring of stack emission and ambient air quality and implementation of environmental management system and to preserve the ecology of that locality. : Noted.

**Additional Conditions**

- 1 The unit shall comply with the conditions stipulated in the Environmental Clearance accorded unit vide MoEF&CC dated 07.01.2014 and amended further dated 14.08.2018 & 04.02.2019 to the under Schedule1(d) of the EIA Notification dated 14.09.2006 as amended. Noted.
- 2 The unit shall comply with the conditions stipulated in the CRZ Clearance accorded to the unit vide MoEF&CC dated 01.01.2014 under the CRZ Notification2011 as amended. Noted.
- 3 The unit shall comply with the special conditions stipulated in the CTE issued dated 11.03.2014 under the Water & Air Acts and additional conditions stipulated in the CTE Extension issued dated 29.06.2016 and 26.11.2020 Noted.
- 4 The unit shall comply with MoEF&CC Notification G.S.R 02(E) dated 2.1.2014 as amended regarding use of raw or blended or beneficiated/washed coal with ash content not exceeding 34% as applicable. Noted.
- 5 Groundwater shall not be drawn during construction of the project. In case, groundwater is drawn during construction, necessary permission shall be obtained from the competent authority. Noted.

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| 6 Rainwater harvesting in and around the plants area be taken up to recharge of ground water to improve the ground water table in that area.   | Noted. |
| 7 The unit shall provide adequate capacity of Sewage Treatment Plant as proposed for 216 KLD to maintain the treated sewage characteristics of pH:6.5-9.0; Bio-Chemical Oxygen Demand (BOD): 30 mg/l; Total Suspended Solids: 100 mg/l; Fecal Conforms (Most Probable Number): <1000 per 100 ml.   | Noted. |
| 8 The unit shall provide an EMFMs at the inlet & outlet of the Sewage Treatment Plant and it shall develop adequate green belt/gardening within the unit premises so as to utilize the entire quantity of treated sewage as reported. The EMFMs shall be connected to TNPCB & CPCB servers.  | Noted. |
| 9 The unit shall ensure that the DM plant regeneration (96KLD) shall be used for dust suppression in coal handling yard after satisfying the standards of pH: 6.5-8.5; Total Suspended Solids: 100 mg/l; Oil & Grease: 20 mg/l; Copper: 1 mg/l; Iron: 1mg/l; Free Chlorine: 0.5; Zinc: 1.0 mg/l; Total Chromium: 0.2 mg/l; Phosphate:5.0 mg/l as reported. | Noted. |

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| 10 The unit shall ensure that the service area effluent (888 KLD) shall be treated in the ETP proposed to meet the standards of pH: 6.5-8.5; Total Suspended Solids:100 mg/l; Oil & Grease: 20 mg/l; Copper: 1 mg/l Iron:1 mg/l; Free Chlorine: 0.5;Zinc: 1.0 mg/l; Total Chromium: 0.2 mg/l; Phosphate: 5.0 mg/l before disposal onland for gardening within the unit premises as reported. The unit shall provide an EMFMs at the inlet & outlet of the ETP which shall be connected to TNPCB &CPCB servers. | Noted. |
| 11 The unit shall ensure that the cooling tower blow down & desalination plant reject (195000 KLD) shall meet the standards of pH: 6.5-8.5; Total Suspended Solids: 100 mg/l; Oil & Grease: 20 mg/l; Copper: 1 mg/l Iron:1 mg/l; Free chlorine: 0.5; Zinc: 1.0 mg/l; Total Chromium: 0.2 mg/l; Phosphate: 5.0 mg/lbefore disposal in to pre cooling channel of NCTPS-I &II as reported.  | Noted. |
| 12 The unit shall develop green belt in an area of 33% of the total project with indigenous native tree species in consultation with the local Forest Department. The green belt shall inter-alia cover an entire periphery of the plant.  | Noted. |
| 13 The Mangrove plantation shall be taken up in an area of 30 ha, along the coast /on the banks of Kosasthalaiyar River, Ennore Creek and Bay of Bengal in consultation with State Forest Department.  | Noted. |

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| <p>14 The unit shall establish separate adequate quantity of HDPE lined ash ponds(Primary &amp; Secondary) including recovery water pumping arrangements as the existing ash ponds utilized by the NCTPP I &amp;II are not HDPE lined and caused ground water pollution.</p> | <p>as per extension of EC order issued by MOEF vide letter dated 09.04.2021, the existing NCTPS-I ash pond augmentation is to be done for further 6 m raising based on the guidance by IIT/ Madras. The consultancy is under progress. The work will be done as per the IIT/Madras report only in near future. Hence, it is informed that no separate ash pond (primary &amp; secondary) is</p> |
| <p>15 As the unit is proposed to discharge the cooling tower blow down &amp; desalination plant reject in to the existing pre cooling channel of NCTPP Stage I &amp; 11 which confluence in Ennore Creek, the unit shall ensure the following.</p>                           | <p>Noted.</p>   |
| <p>a. At the effluent release point, maximum temperature of the discharge water shall not be more than 5 degree and salinity shall not exceed 50 ppt with respect to that of the ambient seawater.</p>   | <p>Noted.</p>   |
| <p>b. Use of antifouling agents like chlorine / hypochlorite, shall be carefully controlled. The chlorine concentration shall not exceed 0.2 ppm at the effluent release point.</p>  | <p>Noted.</p>   |
| <p>c. The effluent when released at the creek shall attain sufficient dilution so that near ambient water quality ( particularly temperature and salinity) is attained within 500m from the release location, at low tide.</p>   | <p>Noted.</p>   |
| <p>d.Continuous online monitoring system for temperature and salinity shall be installed to monitor the quality of effluent</p>  | <p>Noted.</p>   |



- 16 The CTE-Revised is granted to the unit for the incorporation of the details such as survey number, land area, coal requirement, ash generation as mentioned in the Environmental Clearance issued vide MOEFCC No.J-13012/36/2020-IA-II(T) dated 14.08.2018. The unit shall obtain amendment in the Environment Clearance for changes if any on such details and then approach the TNPCB for necessary amendment in the CTE-Revised granted. Noted.
- 17 The unit shall not use 'use and throwaway Plastics' such as plastic sheets used for food wrapping, spreading on dining table etc, plastic plates, plastic coated tea cups, plastic tumbler, water pouches and packets. plastic straw, plastic ca bags and plastic flags irrespective of thickness, within the industry premises. Instead unit shall encourage use of eco friendly alternative such as banana leaf, arecanut palm plate, stainless steel, glass, porcelain plates / cups, cloth bag, jute bag etc. Noted.
- 18 In case of revision of consent fee by the Government the unit shall remit the difference in amount within one month from date of notification. Failing to remit the consent fee, this consent order will be withdrawn without any notice and further action will be initiated against the unit as per law Noted.



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