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VL-TPP/HSE/MOEF&CC/2020/02
November 19, 2020

THERMAL POWER DIVISION

To
Additional Principal Chief Conservator of Forests (C),
Ministry of Environment, Forest and Climate Change,
Regional Office (SEZ),
1st & 2nd Floor, Handloom Export Promotion Council,
34, Cathedral Garden Road, Nungambakkam,
Chennai – 600 034.

Respected Sir,

Sub: M/s. Vedanta Ltd., Thermal Power Division, 2 X 80 MW Coal based Thermal Power Plant Tuticorin - Compliance Report of MoEF&CC Environmental Clearance - Reg.

Ref.: Environmental Clearance No.J-13011/53/2006-IA.II (T) dated 18.05.2011.

With reference to the above mentioned subject and cited reference, we would like to submit the Compliance Report for the period, April 2020 to September 2020.

This is for your kind information and records.

Thanking You,

For **Vedanta Limited,**

P. Divakaran,
Director – Operations.

Copy to:
1. The Director, Ministry of Environment, Forests & Climate Change, New Delhi.
2. The Member Secretary, Central Pollution Control Board, New Delhi.
3. The Member Secretary, Tamil Nadu Pollution Control Board, Chennai.

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CIN: L13209MH1965PLC291394

Vedanta Ltd – Thermal Power Division, Thoothukudi.
2 x 80MW Thermal Power Plant

Compliances of conditions imposed in the Environmental Clearance (2 X 80 MW) issued by MOEF&CC vide Letter No. J-13011/53/2006 – IA. II (T) and J-13011/21/2006 – IA . II (T)

Sl. No	Conditions	Compliance Status
1	No additional land in excess of 60 acres shall be acquired for any activity of the power plant.	• The unit has acquired 410 acres in the year of 1995 from SIPCOT. Of this, 60 acres has been allocated and used for Thermal Power Plant.
2	Ground water shall not be extracted for any purpose including domestic or industrial.	• Ground water is not being extracted for Industrial and domestic purpose.
3	SO_2 and NOx levels shall not exceed the prescribed standards of the ambient air.	• Plant was not in operation during the period between Apr. '20 and Sept. '20.
4	Ash and sulphur contents in the imported coal to be used in the project shall not exceed 12.0% and 1.2% respectively.	• Plant was not in operation during the period between Apr. '20 and Sept. '20.
5	Space provision shall be made for Flue Gas De-Sulphurisation (FGD) unit, if required at later stage.	• As per the condition, we have provided the space provision (75 m x 35 m) in the existing power plant site for Flue Gas De-Sulphurisation (FGD) unit.
6	Closed Circuit Air Cooling system shall be provided.	• We have provided Closed Circuit Air Cooling System to conserve raw water.
7	Environmental clearance is subject to the 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.	• This condition is not applicable.
8	A single stack of 160 m height shall be provided with continuous online monitoring system. Exit velocity of 25m/sec shall be maintained.	• We have provided 165 meter height single stack for 2 X 80 MW Thermal Power Plant with online continuous monitoring system and connected to Care Air Centre, TNPCB, Chennai for real time monitoring. Further, as per the condition, we are maintaining stack exit velocity of 25m/sec during operation. • Plant was not in operation during the period between Apr. '20 and Sept. '20.
9	High efficiency Electrostatic Precipitators(ESPs) with efficiency not less than 99.9% shall be installed to ensure that particulate emission does not exceed 80 mg/Nm3.	• We have installed eight stage ESP for 2 X 80 MW Thermal Power Plant with efficiency of 99.9%. The outlet particulate emission will not exceed 50 mg/Nm3.

10	Fly ash shall be collected in dry form and ash generated shall be used in a phased manner as per provisions of the notification on Fly Ash Utilization issued by the Ministry in September, 1999 and its amendment. By the end of 9th year full fly ash utilization should be ensured. Unutilized ash shall be disposed off in the ash pond In the form of High Concentration Slurry.	• During operation, the generated fly ash is stored in a silo and it is lifted by the cement industries for sustainable applications. The unit is not storing any fly ash in the premises. • Bottom ash is collected in a lined ash pond and also disposed to cement industries. • Plant was not in operation during the period between Apr. '20 and Sept. '20.
11	There shall be no discharge of effluents outside the plant boundary. Zero discharge shall be practiced	• During operation, the effluents generated from DM plant, boiler blow down are treated and used for greenbelt development and ensured Zero liquid discharge. • We would like to mention that we have installed online monitoring equipments such as pH, TSS and Temperature and the monitored data is being transmitted to Care Air Centre, TNPCB during plant operation. • Plant was not in operation during the period between Apr. '20 and Sept. '20.
12	Adequate dust extraction system such as bag filters and water spray system in dusty areas such as coal and ash handling areas, transfer areas and other vulnerable areas shall be provided.	• Adequate dust extraction system, such as bag filters and water spray system have been provided in the coal and ash handling areas, transfer areas and other vulnerable areas.
13	Regular monitoring of ground water in and around the ash pond area shall be carried out, records maintained and quarterly reports shall be furnished to the Regional Office of this Ministry	• Plant was not in operation during the period between Apr. '20 and Sept. '20. • During plant operation, ground water sampling was being collected around the ash pond and the quality of ground water was being analysed half yearly by TNPCB. • We would like to mention here that though we have made a lined ash pond, we are not making any ash slurry except bottom ash which is temporarily stored and disposed to cement industries for sustainable applications.
14	A greenbelt shall be developed all around plant and ash pond boundary covering an area of 15 acres	• We have developed greenbelt in an area of 20 acres in and around power plant which is more than the stipulated limit of Ministry by planting 20,000 different types of native species through the State Forest department and the survival rate is above 98%. This plantation activity and survival rate are monitored by State Forest department also, regularly.
15	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase	• We have provided First aid center and sanitation arrangements for the drivers and construction contract workers during construction stage.

16	Leq of Noise level should be limited to 75 dBA and regular maintenance of equipment be undertaken. For people working in the high noise areas, personal protection devices should be provided.	• Plant was not in operation during the period between Apr. '20 and Sept. '20. • During plant operation, Noise level monitoring is being carried out at 6 locations on weekly basis around the plant and personal protection devices are provided for people working in noisy areas and they are using compulsorily.
17	Regular monitoring of the ambient air quality shall be carried out in and around the power plant and records maintained. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Six monthly report shall be submitted to the Regional Office of this Ministry	• Plant was not in operation during the period between Apr. '20 and Sept. '20. • During plant operation, Ambient Air Quality is monitored at four locations as per CPCB norms and the levels are within the limit. Further, we have installed Continuous Ambient Air Quality Monitoring Station and monitored data is transmitted to Care Air Centre, TNPCB. We are submitting 6 monthly compliance report to the Regional Office of MoEF&CC.
18	The project proponent shall advertise in at least two local news papers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned, informing that the project has been accorded environmental clearance and copies of clearance letters are available with the State Pollution Control Board / Committee and may also be seen at website of the Ministry of Environment and Forests at http://envfor.nic.in	• We have given advertisement in two local newspapers namely The Hindu on 17.05.2007 and Daily Thanthi on 14.05.2007 and submitted a copy of the same to Regional Office of MoEF&CC.
19	A separate environment monitoring cell with suitable qualified staff should be set up for implementation of the stipulated environmental safeguards	• Separate Environmental Monitoring cell with suitably qualified staff has been established for implementation of the stipulated environmental safeguards.
20	Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards should be submitted to this Ministry, Regional office, CPCB and SPCB	• As per the condition, Half yearly status report is being submitted to the Ministry, Regional office, CPCB and SPCB once in six months.
21	Regional Office of the Ministry of Environment & Forests located at Bangalore will monitor the implementation of the stipulated conditions. Complete set of 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	• As per the condition, we have forwarded the complete set of Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time to the Ministry.

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<tr><td>22</td><td>Separate funds should be allocated for Implementation of environmental protection measures along with item-wise break-up. This cost should be included as part of the project cost. The funds earmarked for the environment protection measures should not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.</td><td>• Rs.93.45 crores has been spent for the environmental protection measures of 2 X 80 MW Thermal Power Plant.<table><tr><th>Environmental Protection Measures</th><th>Rs. in Crores</th></tr><tr><td>Chimney Construction.</td><td>3.07</td></tr><tr><td>Online continuous monitors for Criteria pollutants levels including NOx, RSPM (PM_{10} and $PM_{2.5}$), Sox (from stack and ambient air)</td><td>0.44</td></tr><tr><td>Electro Static Precipitator</td><td>12.64</td></tr><tr><td>ETP and Water Treatment Plant</td><td>9.54</td></tr><tr><td>Green Belt Development</td><td>19.8</td></tr><tr><td>Bag filters - Dust extraction system such as bag filters and water spray system in dusty areas such as coal and ash handling areas, transfer areas and other vulnerable areas</td><td>2.33</td></tr><tr><td>Closed Circuit Air Cooling System to conserve raw water.</td><td>45.48</td></tr><tr><td>Construction of ash pond</td><td>0.15</td></tr><tr><td>Total</td><td>93.45</td></tr></table></td></tr>
<tr><td>23</td><td>Full cooperation should be extended to the Scientists / Officers from the Ministry / Regional Office of the Ministry of Bangalore / the CPCB / the SPCB who would be monitoring the compliance of environmental status.</td><td>• We are extending full co-operation whenever officials from the MoEF&CC / Regional Office of MoEF&CC.</td></tr>
<tr><td>24</td><td>No additional coal consumption earlier envisaged for 2 X 60 MW and no additional land for the enhanced capacity shall be permitted.</td><td>• Coal consumption envisaged for 2 x 60 MW was 1840 TPD and the same is used. We have not increased the coal consumption.</td></tr>
<tr><td>25</td><td>The project proponent shall upload the status of compliance of the conditions stipulated in the environmental clearance issued vide this Ministry's letter of even no. dated 30.03.2007, in its website and updated periodically and also simultaneously send the same by e-mail to the regional office of the Ministry of Environment and Forests.</td><td>• As per the condition, we have uploaded the status of compliance of the conditions stipulated in the environmental clearance issued by Ministry, in our website. Kindly refer the link: https://www.sterlitecopper.com/thermal_power_divisi/six-monthly-moef-ec-conditions-compliance/
• Further, we are submitting the same by e-mail to the regional office of the Ministry.</td></tr>
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26	Criteria pollutants levels including NOx, RSPM (PM_{10} and $PM_{2.5}$), SOx (from stack and ambient air) shall be regularly monitored and results displayed in your website and also at the main gate of the power plant.	• During operation, parameters such as NOx, RSPM (PM10 and PM2.5), SOx (from stack and ambient air) are being regularly monitored, results are displayed at the main gate of the power plant and the same is displayed in our website. Kindly refer the link: (i) Stack emission report : https://www.sterlitecopper.com/thermal_power_divisi/stack-emission-report-monthly-average/ (ii) Ambient air report : https://www.sterlitecopper.com/thermal_power_divisi/continuous-ambient-air-quality-monitoring-report-monthly-average/ • Plant was not in operation during the period between Apr. '20 and Sept. '20.

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