

REGD.POST WITH ACK.DUE

Order No. SEIAA/AP/VSP-33/2010-

Dt: 04.04.2013.

**Sub: SEIAA, A.P. – 300 MW Coal based Thermal Power Plant of M/s. Kaizen Power Ltd., Plot No. 57 to 62, APSEZ, Atchutapuram (V & M), Visakhapatnam District – Environmental Clearance - Issued - Reg.**

- I. This has reference to your letter dt. 27.04.2010 and subsequent lrs. dt. 16.06.2010, 24.08.2010, 11.04.2011, 18.08.2011, 31.10.2011, 29.06.2012 & 31.10.2012 in this regard, seeking Environmental Clearance for the proposed Coal based Thermal Power Plant in the name of M/s. Kaizen Power Ltd., Plot No. 57 to 62, APSEZ, Atchutapuram (V & M), Visakhapatnam District. The nearest human habitation viz., Madutur (V) exists at a distance of 1.5 km from the proposed site. The area of the site is Ac. 170.3; Out of that, area earmarked for Green belt is Ac. 53.0. The cost of the project is Rs. 1643.1 Crores and the generation capacity of the project is as follows:

**Electricity: 1 x 300 MW.**

S.No.	Fuel	Requirement	Sulphur content	Mode of transport
1.	Imported Coal	3013 TPD	0.30 % to 0.50%	By Sea and Rail / Road.

- II. In the process, LDO / HFO is used as start up fuels. Subsequently, the coal is fed into the Circulating Fluidized Bed Combustion Boiler. The steam generated will be routed through a steam turbine. The steam turbine is connected to generator to generate electricity.
- III. The proposal has been examined and processed in accordance with EIA Notification, 2006 & its amendments thereof. Initially, a part of the project i.e., Ash pond & ash pipeline was proposed outside the SEZ. Subsequently, the proponent vide lr dt. 31.10.2012 withdrawn the proposal of Ash pond & ash pipeline outside the SEZ and proposed 3 silos for intermediate storage of Ash within the plant premises. The State Level Expert Appraisal Committee (SEAC) examined the application in its meetings held on 11.05.2010, 06.01.2011, 30.04.2011, 02.09.2011, 28.12.2011, 05.07.2012 & 04.11.2012. The project was exempted from the process of public hearing as the whole project is proposed in the SEZ for which EC dt. 13.02.2012 was issued by the MoE&F, GOI, New Delhi, after public hearing for the SEZ held on 23.07.2010; and as per the Office Memorandum dt. 01.11.2012 issued by the MoE&F, GOI. The proponent submitted a copy of Fuel Supply Agreement (coal linkage) dt. 14.04.2011 entered with M/s. Gupta Global Resources Ltd., Nagpur, for supply of imported coal from South Africa or African Continent. Based on the information furnished, presentation made by the proponent and the consultant M/s. Sai Manasa Nature Tech Pvt. Ltd., Hyderabad; copy of coal linkage document, the SEAC considered the project proposal and recommended for issue of prior Environmental Clearance. The State Level Environment Impact Assessment Authority (SEIAA), in its meetings held on 22.02.2012 & 22.12.2012 examined the proposal and the recommendations of SEAC. It was decided to issue Environmental Clearance to the project. The SEIAA, A.P hereby accords prior Environmental Clearance to the project as mentioned at Para no. I under the provisions of the EIA Notification 2006 and its subsequent amendments issued under Environment (Protection) Act, 1986 subject to implementation of the following conditions/safeguards:



#### **A. Specific Conditions:**

##### **a) Air pollution:**

- i The particulate emissions from the stack of height 220 m, connected to the CFBC Boiler (maximum continuous rating - 1025 TPH), shall not exceed 50 mg/Nm<sup>3</sup> as committed during presentation & EIA report. Limestone shall be used as the bed material in the boiler to absorb Sulphur. ESP shall be provided to control particulate emissions.
- ii Provision shall be made to provide Flue Gas Desulphurization (FGD) unit, if required in future.
- iii On line monitors shall be provided to measure stack emissions and Ambient air quality. Separate energy meters shall be provided for all pollution control systems.
- iv Raw materials shall be transported in covered trucks. Raw materials shall be stored under sheds. All the belt conveyors shall be covered with G.I. sheets. Appropriate dust suppression system shall be provided all around the stockpiles and conveyor system. All the roads in the plant area shall be asphalted / concreted and water shall be sprinkled to suppress the dust.
- v In-plant control measures for checking fugitive emissions from all the vulnerable sources like spillage/raw materials handlings etc. shall be provided. Further, adequate dust collection and extraction system such as bag filters shall be provided at all transfer points, raw material screen houses, hoppers, stock house, product house etc., Fugitive emissions shall be regularly monitored and records maintained.
- vi Ambient air quality including ambient noise levels must not exceed the standards stipulated under Notification dt. 16.11.2009 issued by the MoE&F, GOI. Monitoring of ambient air quality and stack emissions shall be carried out regularly in consultation with APPCB and report submitted to the Board and to the Ministry's Regional Office at Bangalore half yearly.

##### **b) Water Pollution:**

- i The water is supplied by APJIC. The total water requirement shall not exceed 1125 m<sup>3</sup>/hr. Out of that, 813 m<sup>3</sup>/hr is used for Cooling tower; 45 m<sup>3</sup>/hr is used as Boiler feed water; 6 m<sup>3</sup>/hr is used as DM Plant rinsing water; 245 m<sup>3</sup>/hr is used as Service water; 5 m<sup>3</sup>/hr is used as domestic water; 11 m<sup>3</sup>/hr is used for clarifier blowdown.
- ii The total waste water generated is 271 m<sup>3</sup>/hr. Out of that, 162 m<sup>3</sup>/hr is from Cooling tower; 20 m<sup>3</sup>/hr is from Boiler; 6 m<sup>3</sup>/hr is from DM Plant; 70 m<sup>3</sup>/hr is from Services; 2 m<sup>3</sup>/hr is from domestic section; 11 m<sup>3</sup>/hr is from clarifier blowdown.
- iii The effluent generated from the plant shall be treated in the Effluent Treatment Plant. The treated waste water shall conform to on land for irrigation standards prescribed by the MoE&F, GOI. The treated industrial waste water is to be used for dust suppression and development of greenbelt. The domestic waste water shall be disposed into the septic tank followed by soak pit.

No effluent shall be discharged outside the factory premises and 'zero' liquid discharge concepts shall be adopted.

- iv The company must harvest the rainwater from the rooftops and storm water drains to recharge the ground water.

- v Green belt shall be developed in an area of Ac. 53.0 along the boundary & within the project site, as per the CPCB guidelines in consultation with the local DFO.

**c) Solid Waste :**

- i. The Ash generated (1055 TPD) from the plant i.e., Fly Ash (844 TPD) is to be stored in silos (3 no. of capacity 1000 TPD) and then be disposed to Cement industries; and Bottom Ash (9 TPD) is to be disposed to mine-fill of abandoned mines / construction of roads / reclamation of low-lying areas etc., The proponent shall comply with the provisions laid under notification S.O. 2804 (E), dt. 03.11.2009 with respect to utilization of Ash generated from the power plant. The proponent shall utilize 100% of fly ash generated in the plant, within four years from the date of commissioning. An action plan to that effect shall be submitted to the CPCB, APPCB, Regional office of MoE&F, GOI, Bangalore within a period of four months.
- ii. Annual implementation report (for the period from 1<sup>st</sup> April to 31<sup>st</sup> March) providing information about the compliance of provisions in the above mentioned notification shall be submitted by the 30<sup>th</sup> day of April, every year to the CPCB, APPCB, Regional office of MoE&F, GOI, Bangalore and also be made part of the annual report of the thermal power plant.
- iii. Waste oils, used oils, hazardous waste generated from the industry shall be disposed as per the Hazardous Wastes (Management, Handling, and Transboundary movement) Rules, 2008 and its amendments thereof to the recyclers authorized by APPCB.

**B. General Conditions:**

- i. This order is valid for a period of 5 years.
- ii. "Consent for Establishment" shall be obtained from Andhra Pradesh Pollution Control Board under Air and Water Act before the start of any activity / construction work at site.
- iii. Provision shall be made for the housing of the construction labour within the site with all necessary infrastructure and facilities such as safe drinking water, fuel for cooking, mobile toilets, mobile STP, medical health care, crèche etc., The housing may be in the form of temporary structures to be removed after the completion of the project. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.
- iv. No change in the process technology and scope of working should be made without prior approval of the SEIAA, A.P. No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, AP/ MoE&F, GoI, New Delhi, as applicable.
- v. The proponent shall submit half-yearly compliance reports in respect of the terms and conditions stipulated in this order in hard and soft copies to the SEIAA; and CCF, Regional office of MoE&F, GoI, Bangalore on 1<sup>st</sup> June and 1<sup>st</sup> December of each calendar year.
- vi. Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.
- vii. Data on ambient air quality should be regularly submitted to the Ministry including its Regional Office located at Bangalore and the State Pollution Control Board/ Central Pollution Control Board once in six months.



- viii. Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
- ix. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
- x. A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- xi. The funds earmarked for environmental protection measures (Capital cost of Rs. 60.90 crores & Recurring cost of Rs. 12.0 crores/annum); & the funds earmarked for CSR activities should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office located at Bangalore.
- xii. The Regional Office of MOE&F located at Bangalore monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.
- xiii. The project proponent shall submit the copies of the environmental clearance to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- xiv. The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and SEIAA, A.P. This order shall be displayed in the website of the project proponent.
- xv. The SEIAA or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
- xvi. Environmental 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.
- xvii. Any appeal against this Environmental 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.
- xviii. The company shall undertake eco-development measures including community welfare measures in the project area.
- xix. The proponent shall obtain all other mandatory clearances from respective departments.
- xx. Concealing the factual data or 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.
- xxi. The SEIAA may revoke or suspend the order, if implementation of any of the above conditions is not satisfactory. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

xxii. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

Sd/-  
MEMBER SECRETARY,  
SEIAA, A.P.

Sd/-  
MEMBER,  
SEIAA, A.P.

Sd/-  
CHAIRMAN,  
SEIAA, A.P.

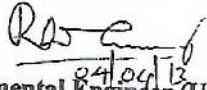
To

Sri A.K. Shrivastava, Group Director,  
M/s. Kaizen Power Ltd.,  
Landmark Building, 6<sup>th</sup> floor, Ramdaspath,  
Wardha Road, Nagpur - 440 010.  
Maharashtra State.  
Ph: 91-712-3011400.

Copy to:

1. Prof. M. Anji Reddy, Chairman, SEAC, A.P. for kind information.
2. The Member Secretary, APPCB for kind information.
3. The EE, RO: Visakhapatnam, APPCB, for information.
4. The Zonal Officer, MoE&F, GOI Bangalore for kind information.
5. The Secretary, MoE&F, GOI New Delhi for kind information.

//T.C.F.B.O//

  
24/04/13  
Jt. Chief Environmental Engineer (Unit Head-I)