

F. No. J-13011/38/2008-IA.II(I)
Government of India
Ministry of Environment & Forests

Ukai #6 - E.C

Paryavaran Bhawan
CGO Complex, Lodi Road
New Delhi-110 003

Dated: 13th June, 2008

To

M/s Gujarat State Electricity Corporation Ltd
Project and Planning Department
Vidyut Bhawan, Race Course
Vadodara- 390 007, Gujarat

27 JUN 2008

Stamp: SE (P&P) STENO

Sub: 500 MW Coal based Power Plant Extension Unit 6 at Ukai TPS, Songadh Taluka, District Tapi, Gujarat by M/s Gujarat State Electricity Corporation Ltd- Environmental clearance regarding.

Sir,

The undersigned is directed to refer to your communication no. PP/PMI/PL-III/Ukai-6/MoEF/1060 dated 6th May, 2008 regarding the subject mentioned above.

2. It is noted that the proposal is for grant of environmental clearance for setting up of a 500 MW coal based Thermal power project as extension unit 6 at Ukai thermal power station, Songadh Taluka, District Tapi, Gujarat. The proposed plant will be located within the premises of existing TPP where 850 MW units are existing. No additional land will be acquired for this project. Water will be withdrawn from existing Ukai left bank canal. The coal requirement is estimated as 2.92 million TPA and will be sourced from Machhakata Captive Coal Block in Talcher. The storage of HFO and LDO to be used as auxillary fuel will be limited to 10,000 kL and 2,000 kL respectively. No ecologically sensitive area is reported within 10 Km radius of the plant boundary. Public hearing was held on 4.3.2008. Total cost of the project is Rs. 2218.00 Crores which includes Rs.350.00 Crores for environmental protection measures.

3. The proposal has been considered and Ministry of Environment & Forests hereby accords environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions:-

- (i) No additional land shall be acquired for any activity/facility of this expansion project.
- (ii) Sulphur and ash contents in the coal to be used in the project shall not exceed 0.60 % and 30.2 % respectively.

Handwritten notes:
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2.8.08
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sent copy to all concerned.
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MoEF for
SDMs/HMB

- (iii) A stack of 275 m height shall be provided with continuous online monitoring equipments for Sox, NOx and Particulate. Exit velocity of flue gases shall not be less than 20 m/sec.
- (iv) High efficiency Electrostatic Precipitator (ESP) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm³.
- (v) Low Nox burners shall be provided.
- (vi) Space provision shall be kept for retrofitting of FGD, if required at a later date.
- (vii) 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.
- (viii) Fly ash shall be collected in dry form and storage facility (silos) shall be provided. 100% fly ash utilization shall be ensured from day one of the commissioning of the expansion plant. The bottom ash shall be disposed off in the ash pond in the conventional slurry mode.
- (ix) No ash pond shall be created for this expansion project. Existing ash pond shall be used for disposal of bottom ash.
- (x) Closed cycle cooling system with cooling towers shall be provided. COC of at least 5 shall be adopted and the effluents shall be treated as per the prescribed norms.
- (xi) The treated effluents conforming to the prescribed standards shall be recirculated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon for storm water. Arrangements shall be made that effluents and storm water do not get mixed.
- (xii) A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation.
- (xiii) Rain water harvesting should be adopted. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rain water harvesting technology within a period of three months from the date of clearance and details shall be furnished.

- (xiv) Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Details of these measures along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry at Bhopal.
- (xv) Existing storage facilities for liquid fuel such as HFO and LDO shall be used. No additional facilities for liquid fuel shall be created. Existing Disaster Management Plan should be so modified to take care of the risk management of this expansion unit also. Mock drills shall be conducted regularly as planned.
- (xvi) Regular monitoring of ground water in and around the ash pond area shall be carried out, records maintained and periodic reports shall be furnished to the Regional Office of this Ministry.
- (xvii) The existing green belt shall be expanded with additional land to take care of the expansion project. The expanded greenbelt shall be developed around the plant periphery preferably with local species. The total area under greenbelt (existing and expansion) shall cover about 1/3 of the project area.
- (xviii) First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
- (xix) Leq of Noise levels emanating from turbines shall be limited to 75 dBA. 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 steam & gas turbines, 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.
- (xx) Regular monitoring of ground level concentration of SO₂, NO_x, SPM and RSPM 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.
- (xxi) 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

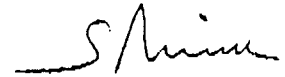
State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>.

- (xxii) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
 - (xxiii) Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to this Ministry/ Regional Office/CPCB/SPCB.
 - (xxiv) Regional Office of the Ministry of Environment & Forests located at Bhopal 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.
 - (xxv) 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.
 - (xxvi) The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.
 - (xxvii) Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry at Bhopal /the CPCB/the SPCB who would be monitoring the compliance of environmental status.
4. The Ministry of Environment and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. MOEF may impose additional environmental conditions or modify the existing ones, if necessary.
5. The environmental clearance accorded shall be valid for a period of 5 years to start of production operations by the power plant.
6. In case of any deviation or alteration in the project proposed 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.

7 The above stipulations would be enforced among others under the Water(Prevention 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 and Handling) Rules,1989 and its amendments, the Public Liability Insurance Act,1991 and its amendments .

8. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.



(Dr. S.BHOWMIK)
ADDITIONAL DIRECTOR

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi-110001.
2. The Secretary, Environment & Forests Deptt., Government of Gujarat, Sachivalaya, 8th floor, Gandhi Nagar-382010.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
4. The Chairman, Gujarat Pollution Control Board, Paryavaran Bhawan, Sector 10-A, Gandhi Nagar-382010 -with a request to display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's office for 30 days.
5. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
6. The Chief Conservator of Forests, Western Regional Office, Ministry of Environment & Forests, E- 5,Arera Colony, Link Road -3, Ravishankar Nagar, Bhopal-462016.
7. Director (EI), MOEF.
8. Guard file.
9. Monitoring file.



((Dr. S.BHOWMIK)
ADDITIONAL DIRECTOR