

BY SPEED POST

**No. J- 13012/6/2002.IA-II(T)
Government of India
Ministry of Environment & Forests

**Paryavaran Bhawan.
CGO Complex, Lodi road,
New Delhi-110003**

Dated: 31st May, 2005

To:

**Chief Engineer (P&P)
Gujarat Electricity Board
Sardar Patel Vidyut Bhawan
Race Course, BARODA-390007
GUJARAT.**

**Sub: 75 MW Lignite Based Thermal Power Plant (Unit-4)
at Panandhro, District Kutch, Gujarat by M/s Gujarat
Electricity Board - Environmental clearance – Regarding.**

Sir,

The undersigned is directed to refer to communication no. PP/PL.III/PanandhroEIA/19 dated 14.6.2000 from Gujarat Electricity Board regarding the subject mentioned above. Subsequent information furnished vide letters dated 18.9.2000, 5.10.2001, 19.8.2002, 17.2.2004 has also been considered.

2. The proposal involves expansion of Kutch Lignite Thermal Power Station by installation of a 75 MW unit based on Circulating Fluidised Bed Combustion (CBFC) technology in the premises of existing power plant. The existing infrastructure facilities will be utilized. About 1500 TPD of Lignite will be required for the power plant. Water requirement will be 8640 m³/day. Entire fly ash generated will be utilized by dumping in excavated lignite mines. No forest land is involved in the project. Capital cost of the project will be Rs. 369.00 crores.

3. The proposal has been examined and environmental clearance to the said project is hereby accorded subject to effective implementation of following conditions and environmental safeguards:

- i) All the conditions stipulated by Gujarat Pollution Control Board vide their letter no. PC/NOC/ Kutch-19(3)/22338 dated 17.7.1999 PC/AIR/ Kutch-34(3)/29826 dated 17.9.1999 should be strictly implemented.
- ii) For the portion of the pipeline passing through CRZ, a separate clearance under the provision of CRZ Notification, 1991 shall be obtained.
- iii) Utilisation of land for the project should be restricted to 43 ha which is already in possession of the project authorities. No additional land will be acquired for the project.
- iv) CFBC boilers should have sulphur trapping efficiency of not less than 95%.
- v) A single flue stack of 190 m height with an exit velocity of 18m/sec should be provided with continuous on-line monitoring equipments. The data collected should be analysed and submitted to Ministry of Environment & Forests regularly.
- vi) Construction of 230 m high stacks for units 1 & 2 should be completed prior to the commissioning of the 4th unit.
- vii) Close circuit cooling system with cooling towers should be provided.
- viii) Water requirement for the entire station (existing + expansion) should be met from the sea. Water drawn from the Kori Creek should be treated and reused. Treated effluents from the project conforming to the prescribed standards should only be discharged into the Kori creek at a location identified by the National Institute of Oceanography, based on modeling studies.
- ix) Lignite having calorific value of at least 2200 Kcal/Kg, ash content of not more than 40 % and sulphur content not exceeding 3.5% should only be used.
- x) For controlling fugitive dust during transportation of lignite from Gujarat Mineral Development Corporation(GMDC's) mines, dust extraction and suppression system and wet systems should be used.
- xi) Ash generated (612 TPD approx.) should be used in a phased manner as per provisions of the notification on Fly Ash Utilisation issued by the Ministry in September, 1997. By the end of 9th year full utilization of fly ash should be ensured.
- xii) High efficiency Electrostatic Precipitator(ESP) with 99.9% efficiency should be installed to limit SPM emission within 100 mg/Nm³.
- xiii) An area not exceeding 23 ha should be used for ash disposal. The mined out areas of GMDC should be used for ash disposal.
- xiv) Noise level should be limited to 75 dBA. Regular maintenance of equipments should be undertaken. People working in high noise

- areas should be provided with ear plugs and other protection devices.
- xv) Recommendations contained in the risk analysis report should be fully implemented. A programme of mock drills should be prepared and conducted regularly to train the employees to handle effectively any eventuality, which may arise. Safety alarm devices should be installed at strategic points including main gate, assembly points, first aid centre etc.
 - xvi) A greenbelt of adequate width (20-25 m) and density (1500-2000 trees/ha.) should be developed around the proposed unit. Plantation should also be undertaken along the conveyor belt.
 - xvii) The predicted GLC values near the nearest boundary of Narayan Sarovar Sanctuary based on the post monsoon meteorological data and taking into consideration all the four stacks should be recomputed in consultation with the India Meteorological Department and results communicated to this Ministry at the earliest but within 6 months at the latest.
 - xviii) Regular monitoring of the air quality should be carried out in and around the power plant and records maintained. The monitoring station should be suitably selected taking into account, the wind direction and sensitive receptors. Periodic (six monthly) report should be submitted to this Ministry.
 - xix) For controlling fugitive dust, regular sprinkling of water in vulnerable areas of the plant should be ensured.
 - xx) A separate environment monitoring cell with suitable qualified staff should be set up for implementation of the stipulated environmental safeguards.
 - xxi) A half yearly report on the status of implementation of the stipulated conditions and environmental safeguards should be submitted to this Ministry/ Regional Office/CPCB/SPCB.
 - xxii) Regional Office of the Ministry of Environment & Forests located at Bhopal will monitor the implementation of the stipulated conditions. Complete set of Environmental Impact assessment Report and Management Plan should be forwarded to the Regional Office for their use during monitoring.
 - xxiii) Separate funds should be allocated for implementation of environmental protection measures along with item-wise break-up. These 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 Ministry.
 - xxiv) Full cooperation should 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.

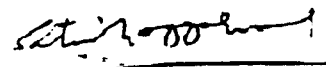
xv) The project proponent should advertise at least in two local newspapers widely circulated in the region around the project, one of which should be in the vernacular language of the locality concerned, informing that the project has been accorded environmental clearance and copies of clearance letters are available with the available the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://www.envfor.nic.in>.

4. The Ministry reserves the right to revoke the clearance if stipulated conditions are not implemented to the satisfaction of the Ministry.

5. The environmental clearance accorded shall be valid for a period of 5 years for construction/operation of the power plant. In case, if the project authorities fails to do so within this stipulated period, this environmental clearance shall stand lapsed automatically.

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, Hazardous Wastes (Management and Handling) Rules,1989 and its amendments, the Public Liability Insurance Act, 1991 and its amendments, the Environment Impact Assessment Notification of January,1994 and its amendments.



(S.K.AGGARWAL)
DIRECTOR

Copy to:

1. Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi-110001.
2. Secretary, Environment & Forests Deptt., Government of Gujarat, Gandhinagar, Gandhinagar-382010(Gujarat).

3. Chairman, Central Electricity Authority, Sewa Bhawan, R.K.Puram, New Delhi-110066.
4. Chairman, Gujarat Pollution Control Board, Paryavaran Bhawan, sector-10A, Gandhinagar-382010 with respect to display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's office for 30 days.

Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Aram Nagar, Delhi-110037

6. Chief Conservator of Forests, Central Regional Office, Ministry of Environment & Forests, E-3/240, Arera Colony, Bhopal-462016.
7. Director(EI), MOEF.
8. Guard file.
9. Monitoring file.

S.K. Aggarwal

(S.K.AGGARWAL)
DIRECTOR