

BY SPEED POST

No. J- 13011/13/2007-IA-II (T)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan
CGO Complex, Lodi Road
New Delhi-110003.

Dated: 5th February, 2008

To

M/s Chhattisgarh State Electricity Board
Office of the Chief Engineer (PRG-I)
Shed No.3, Dangania
Raipur-492 013,
Chhattisgarh.

Sub: 2x500 MW Thermal Power Plant at Marwa Distt. Janjgir-Champa, Chhattisgarh by Chhattisgarh State Electricity Board CSEB- Environmental Clearance regarding.

The undersigned is directed to refer to your communication no. 03-05/165-F/439 dated 22nd February, 2007 on the above mentioned subject. Subsequent communications dated 12.07.2007 and 13.09.2007 have also been considered.

2. It is noted that the proposal is for grant of environmental clearance under the provisions of EIA Notification, 1994 for setting up of a 2x500 MW thermal power plant at Village Marwa in Chhattisgarh. The land requirement for the project is 508 ha, which includes 174 ha for greenbelt and 140 ha for ash disposal. The land is mostly barren having agricultural patches. No forestland is involved. No National Park or Wildlife Sanctuary is reported within 25 km of the project area. There will be 102 homestead oustees and 584 land oustees due to this project. The coal requirement is estimated to be 742.4 tonnes/hr. The total water requirement is estimated as 3550 m³/hr, which will be obtained from Hasdeo river. The barrage on the Hasdeo river will be constructed by Water Resource Department, Govt. of Chhattisgarh. Public hearing for the project was held on 9th November, 2006. Total cost of the project is Rs 4498.06 crores, which includes Rs 169.78 crores for environmental protection measures.

3. The proposal has been considered by the Expert Appraisal Committee in accordance with para 12 of the EIA Notification dated 14th September, 2006 read with para 2.2.1 (i) (a) of the Circular No. J-11013/41/2006-IA.II(I) dated 13.10.2006. Based

on the recommendations of the Expert Appraisal Committee for Thermal Power and Coal Mine Projects, the Ministry of Environment & Forests hereby accords environmental clearance to the said project under the provisions of EIA Notification 2006, subject to implementation of the following terms and conditions:-


- (i) No land in excess of 508 ha shall be acquired for any utilities/facilities relating to this project.
- (ii) Coal with ash content not exceeding 44% and sulphur content not exceeding 0.4% shall be used.
- (iii) Space provision shall be made for installation of FGD of requisite efficiency of removal of SO₂, if required at a later stage.
- (iv) A bi-flue stack of 275 m height with exit velocity of at least 22 m/s shall be provided with continuous online monitoring system.
- (v) High efficiency Electrostatic Precipitator (ESPs) with 99.89% efficiency shall be installed so as to ensure that particulate emissions do not exceed 100 mg/Nm³.
- (vi) Closed Cycle Cooling system with natural draft cooling towers shall be provided.
- (vii) COC of not less than 5 shall be adopted.
- (viii) Treated effluents conforming to the prescribed standards shall be re-circulated and reused within the plant. No effluents shall be discharged outside the project boundary.
- (ix) 100% Fly ash shall be collected in dry form and its full utilization shall be achieved within 9 years in accordance with the notification on fly ash utilization SO 763 (E) dated 14th September, 1999 and the amendments made therein from time to time.
- (x) The unutilized fly ash shall be disposed in the ash pond through HCSD system and unutilized bottom ash through medium slurry mode. Ash pond shall be lined with clay lining.
- (xi) Rainwater harvesting shall be practiced. A detailed scheme for rain water harvesting to recharge the ground water aquifer shall be prepared in consultation with Central Ground Water Authority/ State Ground Water

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Board and a copy of the same shall be submitted within three months to this Ministry.

- (xii) Regular monitoring of ground water quality including heavy metals shall be undertaken around ash dyke and the project area to ascertain the change in the water quality due to leaching of contaminants, if any, from ash disposal area. Periodic reports shall be submitted to the Regional Office at Bhopal.
- (xiii) Leq of Noise level shall be limited to 75 dBA and regular maintenance of equipments should be undertaken. For people working in high noise areas, personal protection devices should be provided.
- (xiv) First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
- (xv) A greenbelt shall be developed with local species around the plant boundary with tree density of around 1500-2000 trees per ha covering at least 174 ha area.
- (xvi) Regular monitoring of the air quality shall be carried out in and around the power plant and records shall be maintained. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with State Pollution Control Board. Periodic reports shall be submitted to the Regional Office of this Ministry at Bhopal.
- (xvii) Dust extraction & suppression system and water sprinklers shall be provided for controlling fugitive dust during coal transportation, in coal storage & handling area and other vulnerable areas of the plant.
- (xviii) 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>
- (xix) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
- (xx) Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to this Ministry, the Regional Office, and the CPCB/SPCB.

- (xxi) 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.
- (xxii) 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 shall be reported to the Ministry.
- (xxiii) 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 reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry.
5. The environmental clearance accorded shall be valid for a period of 5 years to start of production operation by the power plant.
6. In case of any deviation or alteration in the project proposed from that submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.
7. The above stipulations shall be enforced along with others as under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989, Hazardous Wastes (Management and Handling) Rules, 1989, the Public Liability Insurance Act, 1991.


 (Dr. S.K. Aggarwal)
 Director

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi-110001.
2. The Secretary, Department of Environment, Govt. of Chhattisgarh, Dau Kalyan Singh Bhawan, Raipur- 492001.

3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
4. The Chairman, Chhattisgarh Environment Conservation Board, Nanak Niwas, Civil Lines, Raipur-492001 - **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-3/240, Arera Colony, Bhopal-462016.
7. Director (EI), MOEF
8. Guard file.
9. Monitoring file.

(Dr. S.K. AGGARWAL)
DIRECTOR