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BY SPEED POST

No. J-13011/4/2008-IA.II(T)
Government of India
Ministry of Environment & Forests

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

Dated: 29th May, 2008

To

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2931
3-7-08

M/s Adani Power Pvt. Ltd
Shikar, 9th Floor,
Near Mithakhali six roads,
Navragpura,
Ahmedabad- 380 009 (Gujarat)

Sub: 2x660 MW Coal based Thermal Power Project at Tiroda, Maharashtra by M/s Adani Power Maharashtra Pvt. Ltd- Environmental Clearance regarding.

The undersigned is directed to refer to your communication no. APMPL: TIRODA/ENV/EIA dated 11.1.2008 regarding the subject mentioned above. Subsequent information furnished vide letter dt.6.3.2008 and 21.3.2008 have also been considered.

2. It is noted that the proposal is for grant of environmental clearance for setting up of a 1320 MW (2x660 MW) coal based thermal power project at Tiroda, Maharashtra. The project is based on super critical technology. The land requirement is estimated as 210 ha (64.13 ha for plant, 51.07 ha for ash dyke, 18.50 ha for water reservoir, 69.64 ha for greenbelt and 6.66 ha for ash based industry). No colony is proposed as part of this project. The coordinates of the project site are latitude 21° 24' 32.4" N and longitude 79° 57' 9.36" E. The coal requirement is estimated as 6.533 million TPA, which will be obtained from Lohara West & Lohara Extension mines located at a distance of 260 km and the fuel will be transported by rail. The water requirement is 36 MCM/year, which will be obtained from river Wainganga at a distance of about 5 km. No forestland is involved. However, protected forests are reported at a distance of 8 km from the site and some scheduled-I&II animals have also been reported. No ecologically sensitive area is reported within 10 Km radius of the plant boundary. Total cost of the project is Rs 4750.00 crores, which includes Rs 475.00 crores for

environmental protection measures. The proposal is exempt from public hearing because of its location in notified industrial area.

3. The proposal has been considered and the 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) The total land requirement for the project shall be restricted to 210 ha.
- (ii) Sulphur and ash contents in the coal to be used in the project shall not exceed 0.3% and 22.5% respectively.
- (iii) A bi-flue stack of 275 m height shall be provided with continuous online monitoring equipments for Sox, NO_x and Particulate. Exit velocity of flue gases shall not be less than 22 m/sec.
- (iv) High efficiency Electrostatic Precipitator (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm³.
- (v) Space provision shall be kept for retrofitting of FGD, if required at a later date.
- (vi) 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.
- (vii) Fly ash shall be collected in dry form and storage facility (silos) shall be provided and its utilization to the maximum extent shall be ensured. 100% fly ash utilization shall be ensured from 5th year onward. Unutilized fly ash shall be disposed off in the ash pond in the form of High Concentration Slurry and the bottom ash in conventional slurry mode.
- (viii) Ash pond shall be lined with HDPE lining. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached. Guard drains shall be provided all along the periphery of the ash dyke to avoid contamination of soil and surface water in case of run-off.
- (ix) Water requirement shall not exceed 36 MCM/year. No ground water shall be extracted for this power project including during construction period.
- (x) Closed cycle cooling system with cooling towers shall be provided. Cycle of concentration (COC) of at least 5.5 shall be adopted and the effluents treated as per the prescribed norms.
- (xi) The treated effluents conforming to the prescribed standards shall be re-circulated 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) Rainwater harvesting should be adopted. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater 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) Storage facilities for liquid fuel such as LDO to be used as auxiliary fuel in the project shall be made in the plant area where risk is minimum to the storage facilities. Adequate arrangement of risk management shall be made in the Disaster Management Plan for the same. Mock drills shall be conducted regularly as plan. Necessary clearance as may be applicable to such storage under HSM Rules shall be obtained.
- (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) A green belt of adequate width and density shall be developed around the plant periphery covering at least 69.64 ha of project area preferably with local species.
- (xviii) A plan for conservation of fauna reported in the study area shall be prepared in consultation with State Forests and Wildlife Department within 3 months and shall be implemented effectively.
- (xix) First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
- (xx) Leq of Noise levels emanating from gas and steam 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 etc. shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/less noisy areas.
- (xxi) 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 (six monthly) shall be submitted to the Regional Office of this Ministry
- (xxii) 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>.

- (xxiii) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
 - (xxiv) 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.
 - (xxv) 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.
 - (xxvi) 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.
 - (xxvii) 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.
 - (xxviii) 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.

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(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 Energy and Environment, Govt. of Maharashtra, Mantralaya, Mumbai-400032, Maharashtra.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K.Puram, New Delhi-110066.
4. The Chairman, Maharashtra Pollution Control Board, Kalptaru point 3rd & 4th Floor Sion Matunga Scheme Road No. 8, opp. Cine Planet Cinema, near Sion Circle, Sion(East), Mumbai-400022 - with 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