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By Speed Post

No. J- 13011/72/2007-IA-II (T)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan
CGO Complex, Lodi Road
New Delhi-110003

Dated: 31st July, 2008

To

M/s Jindal Steel & Power Ltd
Jindal Centre, 12 Bhikaji Cama Place
New Delhi- 110 066.

Sub: 2x150 MW Middling and Coal fine based Thermal Power Plant at village Dongamahua, District Raigarh, Chhattisgarh of M/s Jindal Steel & Power Ltd - Environmental Clearance Regarding.

The undersigned is directed to refer to your communication no. JSPL/MoEF/RKS/2.5/1936 dated 9.10.2007 on the above-mentioned subject. Subsequent information furnished vide letter dated 25.2.2008 and 28.5.2008 has also been considered.

2. It is noted that the proposal is for grant of environmental clearance for setting up of a 2x150 MW at village Dongamahua, District Raigarh, Chhattisgarh. CFBC technology will be adopted. The land requirement is about 56 acres, which is within lease hold of coal mine area. There will be no ash pond. The water requirement is 942 m³/hr, which will be met from Mine sump water and harvested rainwater. No ground water will be extracted. No additional bore well will be sunk. Middlings from the washery as well as coal fines will be used as fuel and will be transported by conveyor. The public hearing was conducted on 28.6.2007. Total cost of the project is Rs 1050.00 crores, which includes Rs 93.50 crores for environment 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) The total land requirement for the project shall be restricted to 56 acres.
- (ii) Sulphur and ash contents in the mixed fuel (Middling and coal) to be used in the project shall not exceed 0.5% and 54% respectively at any given time.

- (iii) A bi-flue stack of not less than 220 m height with continuous online monitoring equipments for Sox, NOx and Particulate matter shall be provided. Exit velocity of flue gases shall not be less than 25 m/sec.
- (iv) High efficiency Electrostatic Precipitator (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm³.
- (v) Fly ash shall be collected in dry form and storage facility (silos) shall be provided. 100% ash shall be used in cement plants, filling of low lying areas, road construction, brick manufacturing, and back filling in the mined out areas of their captive coal mines.
- (vi) Filling of low lying area shall be done with proper lining of the area to be filled up and proper clay layer over the filled material.
- (vii) Back filling of the mined out area of the captive coal mines shall be done with prior permission from DGMS.
- (viii) There shall be no ash pond for this power project.
- (ix) 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.
- (x) Water requirement shall not exceed 942, which shall be met from the Mine sump water and harvested rainwater. No ground water shall be extracted for any activity of the power project including construction phase of the project.
- (xi) Closed cycle cooling system with cooling towers shall be provided. The effluents shall be treated to conform to the prescribed norms.
- (xii) 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 so that effluents and storm water do not get mixed.
- (xiii) A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation.
- (xiv) Regular monitoring of ground water in and around the project area shall be carried out, records maintained and six monthly reports shall be furnished to the Regional Office of this Ministry.
- (xv) The storm water drainage shall be so designed and linked to the surface drainage so as to preserve the natural drainage of the area.
- (xvi) 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.
- (xvii) A green belt of adequate width and density shall be developed around the plant periphery covering about 7.47 ha of project area preferably with local species.
- (xviii) 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 and audiometric records shall be maintained. Treatment for any hearing loss including shifting to non noisy/less noisy areas.

- (xix) 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. There should be at least one monitoring station in the predominant downwind direction at a distance of about 2.5 Km where the maximum ground level concentration due to emission from the stack is likely to occur. Six monthly reports shall be submitted to the Regional Office of this Ministry at Bhopal/SPCB/CPCB.
- (xx) Appropriate safeguard measures shall be taken to guard against fire hazards in coal storage area. DMP shall be prepared to handle such situation.
- (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 a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.



(Dr. S. K. Aggarwal)
DIRECTOR

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi - 110 001.
2. The Secretary, Department of Environment, Dau Kalyan Singh Bhawan, Raipur-492001.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110 066. 0
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-110 032.
6. The Chief Conservator of Forests, Central Regional Office, Ministry of Environment & Forests, E-3/240, Arera Colony, Bhopal-462 016.
7. Director (EI), MOEF.
8. Guard file.
9. Monitoring file.



(Dr. S. K. Aggarwal)
DIRECTOR