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① & Musali Sharan

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BY SPEED POST



J 13011/79/2007-IA.II (T)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan
CGO Complex, Lodi Road
New Delhi-110 003
Dated: 29th June, 2010

To

The President - Power
M/s Monnet Power Company Ltd.
11, Masjid Moth, Greater Kailash,
Part-II, New Delhi- 110048

Sub: 2x525 MW Coal based Thermal Power Plant at Village Malibrahmani in Chandipada Block in Angul District, in Orissa by M/s Monnet Power Company Ltd. - environmental clearance reg.

Sir,

The undersigned is directed to refer to your letter no. MPCL/01 dated along with EIA/EEMP and public hearing report and subsequent communications dated 18th November, 2008, 23rd March, 2010, 14th May, 2010, 20th May, 2010 seeking environment Clearance under the provisions of EIA notification, 2006 on the subject mentioned above and communication no. 8854/Ind-II-noc-457 dated 27th May, 2010.

2. The Ministry of Environment & Forests has examined the application. It has been noted that the proposal is for setting up of 2x525 MW Coal Based Thermal Power Plant at Malibrahmani in Chandipada Block, in Angul Dist, in Orissa. The project site is at a distance of 20km from the Centre of Talchar -Angul industrial and mining zone. Land requirement will be 400 ha (including 175 ha for main plant, 155 ha for ash disposal, 20 ha for township and 50 ha for service corridor and miscellaneous requirement), out of which 18.281 Ha is forest land. Proposal for diversion of forest land has been submitted to the Ministry. No forest land is involved in the ash disposal area. There are no wildlife sanctuary, national parks, biosphere / tiger reserves, heritage sites etc. within 10 km of the proposed site. There will be about 188 project affected families of which 146 families will be displaced and 46 families will be losing land. Water requirement of 4140 m³/hr will be met from River Brahmani near Samal Barrage about 24 km from the proposed site. Coal requirement is 5.45 MMTPA at 80% PLF, which will be obtained from Utkal B2 and Mandakini Coal Blocks. Fly Ash in dry form will be

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evacuated by closed trucks and will be utilized in cement and brick plants, abandoned opencast mines, road construction, etc. Any unutilized ash will be converted into slurry and disposed off to ash disposal area. Ash disposal area overflow will be 100% recycled. Bottom Ash will be extracted in wet condition and disposed in slurry form to ash disposal area. High efficiency ESP will be installed to control the particulate emissions and twin-flue common stack of height 275m will be provided. Cost of the project is Rs.4975 crores.

3. The proposal was considered by the Expert Appraisal Committee (Thermal) in its meetings held in July 10-11, 2008 and October 13-14, 2008. The Committee sought the additional information. On receipt of information, proposal was reconsidered by the Expert Appraisal Committee in its meeting held during 19-20th March, 2010. The Committee recommended the project for environmental clearance. Public hearing for the project was held on 23.10.2007.

4. The project has been considered in accordance with the provisions of the EIA notification issued by the Ministry of Environment & Forests vide S.O. 1533 (E), dated September 14, 2006. The Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA notification dated September 14, 2006, subject to the compliance of the following Specific and General conditions:

A. Specific Conditions:

- i. Prior permission under the Forest(Cons.) Act, 1980 for diversion of forest land of 18.281 ha shall be obtained before starting construction activity in the forest land.
- ii. In case of revised coal consumption requirement for running the power plant is proposed to be changed, the project proponent shall apply for such a change in environmental clearance along with necessary documents as required under the provisions of EIA Notification, 2006 and its amendments. In such a case the necessity for holding public hearing again or otherwise will be determined by the Ministry in consultation with the Expert Appraisal Committee.
- iii. The company shall pay compensation for acquisition of private land as per the Central Government/State Government norms. The compensation to be paid to the land loser and displaced families shall not be less than the norms/package as per the Policy on National Resettlement and Rehabilitation Rules, 2007 and as amended subsequently. Action plan for R&R with package for the project affected persons shall be submitted within three months from the date of issue of this letter.

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- iv. No additional land in excess of 400 ha shall be acquired for any activity/facility of this project.
- v. Sulphur and ash contents in the coal to be used in the project shall not exceed 0.6 % and 34 % respectively at any given time.
- vi. A bi-flue stack of 275 m height shall be provided with continuous online monitoring equipments for SO_x, NO_x and Particulate Matter. Exit velocity of flue gases shall not be less than 25 m/sec. Mercury emissions from stack may also monitored on periodic basis.
- vii. Provision for installation of FGD shall be provided for future use. High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm³. 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. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM (PM_{2.5} & PM₁₀), SO₂, NO_x (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.
- ix. No ground water shall be extracted for use in operation of the power plant even in lean season.
- x. COC of 5.0 shall be adopted. The treated effluent conforming to the prescribed standards only shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon. Arrangements shall be made that effluents and storm water do not do not get mixed. A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation.
- xi. Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg,Cr,As,Pb) and records maintained and submitted to the Regional Office of this Ministry. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project.

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- xii. Monitoring of surface water quantity shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained.
- xiii. Measures for rainwater harvesting shall be undertaken. 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. Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.
- xv. Utilization of 100% Fly Ash generated shall be made from 4th year of operation of the plant. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.
- xvi. Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized fly ash shall be disposed off in the ash pond in the form of slurry form. Mercury and other heavy metals (As, Hg, Cr, Pb etc.) shall be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed off in the low lying area.
- xvii. Ash pond shall be lined with HDP/LDP lining or any other suitable impermeable media so that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.
- xviii. For disposal of bottom ash in abandoned mines (if proposed to be undertaken), it shall be ensured that the bottom and sides of the mined out areas are adequately lined with clay before Bottom Ash is filled up. The project proponent shall inform the State Pollution Control Board well in advance before undertaking the activity.
- xix. Green Belt consisting of 3 tiers of plantations of native species around plant and at least 100 m width shall be raised. Wherever 100 m width is not feasible a 50 m width shall be raised and adequate justification shall be submitted to the Ministry. Tree density shall not less than 2500 per ha with survival rate not less than 75 %.
- xx. For the tribal families affected directly or indirectly by the proposed project, specific schemes for up-liftment of their sustainable livelihood

shall be prepared with time bound implementation and in-built monitoring programme. This shall be submitted within six months to the ministry.

- xxi. The project proponent shall also adequately contribute in the development of the neighbouring villages. Special package with implementation schedule for providing fluoride free potable drinking water supply in the near by villages and schools shall be undertaken in a time bound manner.
- xxii. While identifying CSR programme the company shall conduct need based assessment for the nearby villages to study economic measures with action plan which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people besides development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes. This will be in addition to vocational training for individuals imparted to take up self employment and jobs.
- xxiii. It shall be ensured that in-built monitoring mechanism for the schemes identified is in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time

B General Conditions:

- i. Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry.
- ii. The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon. Arrangements shall be made that effluents and storm water do not get mixed.
- iii. Storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil.

- iv. First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
- v. Noise levels emanating from turbines shall be so controlled such that the noise in the work zone 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 turbine area, 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.
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- vi. Regular monitoring of ground level concentration of SO₂, NO_x, PM_{2.5} & PM₁₀ and Hg 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. The data shall also be put on the website of the company.
- vii. Provision shall be made for the housing of construction labour (as applicable) within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- viii. 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>.
- ix. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
- x. A separate Environment Management Cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.

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- xi. The environment statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.
- xii. The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests.
- xiii. Regional Office of the Ministry of Environment & Forests 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. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six monthly basis.
- xiv. 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.
- xv. 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.
- xvi. Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry at Bhubaneswar / CPCB/ SPCB who would be monitoring the compliance of environmental status.

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5. 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. The Ministry may also impose additional environmental conditions or modify the existing ones, if necessary.
6. The environmental clearance accorded shall be valid for a period of 5 years to start operations by the power plant.
7. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
8. In case of any deviation or alteration in the project proposed including coal transportation system 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.
9. 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 and Transboundary Movement) Rules, 2008 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.
10. 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. P.L. Ahujara)
Scientist 'F'

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Secretary (Environment), Environment Department, Government of Orissa, Bhubaneswar.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
4. The Chairman, Orissa State Pollution Control Board, A-118, Nilkanta Nagar, Unit - VIII, Bhubaneswar- 751 012.
5. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi- 110032.

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6. The Chief Conservator of Forests, Regional Office (EZ), Ministry of Environment & Forests, A/3, Chandesekhapur, Bhubaneswar - 751023.
7. The District Collector, Angul District, Orissa.
8. The Director (EI), MOEF.
9. Guard file.
10. Monitoring file.

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