



सत्यमेव जयते

Ministry of Environment & Forests (MOEF)

No.J-11015/1015/2007-IA.II(M)

Paryavaran Bhawan,
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New Delhi -110510.

ms.coal-menf@cni.in

Dated: 13th October 2009

To
DGM- P&A,
M/s Jindal Steel & Power Ltd.,
Plot No. 751, Simlipada,
ANGUL - 759122, ORISSA.

Sub: Proposed Coal Washery (6.5 MTPA ROM) of M/s Jindal Steel & Power Ltd., located in village Kalakata, Tehsil Chhendipada, district Angul, Orissa - Environmental Clearance - reg.

Sir,

This has reference to letter No. JSPL/ANGUL/EMD/ dated 26.11.2007 along with application for Terms of Reference (TOR) and this Ministry's grant of TOR vide letter dated 21.07.2008 and subsequent application vide letter No. JSPL/DNA/1.11 (A)/2009/0626 dated 26.06.2009 for environmental clearance and letters dated 07.06.2007 and 26.06.2009 on the above-mentioned subject. The Ministry of Environment & Forests has considered the application. The proposal is for establishing a new captive coal washery of 6.5 million tonnes (ROM) per annum capacity by wet process (Dense Media) in a total area of 15 ha within the premises of their linked Steel Plant-cum Thermal Power Plant. No forestland is involved. Environmental clearance has been granted for the 6 MTPA Steel Plant with captive TPP of 1000 MW on 22.02.2007 and to the captive Utkal B1 coalmine on 09.04.2007. The distance of the captive Utkal B1 coalmine to the washery is 5 km. There are no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 15 km buffer zone. Of the project area of 15 ha which is in possession of the project authority, area for washery is 5 ha, building 0.50 ha, water storage area is 2 ha, tailings and 2.50 ha and greenbelt is 5 ha. The washery unit has Dense Heavy Media Hydro Cyclone and consists of two streams of 650 TPH each throughput capacity. Transport of 6.5 MTPA of raw coal (with an ash content of 45%) from Utkal B1 coalmine and 2.6 MTPA of clean coal (of 34-36% ash content) from the washery to the Gasification Unit of the linked Steel Plant and 3.9 MTPA of middling (of 52.8% ash content) to the CFBC Thermal Power Plant (8x 135 MW) for power and Boiler unit would be by piped conveyors only. Water requirement would be 690 m3/d of which 430 m3/d is make-up water and would be initially met for 2 years from borewells for the construction and from River Brahmani upto the 5th year and thereafter, mine pit water of captive Utkal B1 coalmine would be used when water table is intersected. NOC has been obtained from CGWA for using 5000 m3/d of groundwater for the combined requirement of the Steel Plant and the Washery and from Department of Water Resources, Govt. of Orissa on 26.08.2008 for using water from River Brahmani. In addition, water from Samal Barage of River Brahmani would be utilised for the steel-cum-washery unit. It is a zero-discharge unit. Public Hearing was conducted on 21.03.2006 for the Linked Steel Plant, and details of the proposed washery have been reflected in the Steel Plant proposal for environmental clearance. Capital cost of the project is Rs. 32.06 crores.

2. The Ministry of Environment & Forests hereby accords environmental clearance for the expansion of the above-mentioned captive **Coal Washery of 6.5 million tonnes per annum (MTPA) (ROM) capacity** under the provisions of the Environmental Impact Assessment Notification, 2006 and subsequent amendments thereto and under various MOEF Circulars thereunder and subject to conditions specified below:

A. Specific Conditions

- (i) The entire mineral transportation of raw coal, clean coal and middling shall be by piped (closed) conveyors only.
- (ii) The raw coal, washed coal and coal wastes (rejects) shall be stacked properly at earmarked site(s) within stockyards with storage capacity to store upto 5 days stock and fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored minerals do not catch fire.
- (iii) Hoppers of the coal crushing unit and washery unit shall be fitted with high efficiency bag filters and mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of closed belt conveyor systems and from transportation roads.
- (iv) All internal roads shall be concreted. The roads shall be regularly cleaned with mechanical sweepers. A 3-tier avenue plantation using native species and species of economic importance shall be developed along the main roads, and approach roads to the washery.
- (v) Water requirement for the Coal Washery shall be met from borewells for an initial period of 2 years only for the construction of the washery and from River Brahmani upto the 5th year and thereafter, only mine pit water of captive Utkal B1 coalmine shall be used after the intersection of water table.
- (vi) The project authorities shall create a water reservoir and more than 10 rainwater harvesting pits and ground water recharge structures all across the mine and in the Steel Plant area. Any additional water requirement envisaged shall be obtained by recycle/reuse to the maximum extent and from rainwater harvesting measures.
- (vii) Industrial wastewater (workshop and wastewater from the washery) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time for recycle/reuse. Oil and grease trap shall be installed for treatment of workshop effluents.
- (viii) The Washery unit shall be a zero-discharge facility and no wastewater/effluent shall be discharged from the washery into the drains/natural watercourses. Recycled water shall be used for development and maintenance of green belt and in the Plant Operations.
- (ix) A 3-tier green belt of 5 ha using native species and species of economic importance shall be developed all along the periphery of the site, along the areas such as the washery unit, crushing unit, and stockyard.
- (x) Ash content and heavy metals including mercury content in raw coal, and clean coal and middling shall be analysed once in a year and records maintained thereof.
- (xi) Environmental protection measures with a capital cost of not less than Rs. 245.67 lakhs and Rs 76.94 lakhs towards annual recurring costs shall be implemented.

- (xii) Socio-economic and welfare measures for the local communities shall be implemented under CSR with an annual revenue expenditure of Rs 500 lakhs upto 4th year and Rs. 2400 lakhs be earmarked from 5th year for life of the project and details of the activities and the expenditure incurred hereunder be uploaded and updated on the company's website every year.

B. General Conditions

- (i) No change in technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.
- (ii) No change in the calendar plan including quantum of mineral coal and waste shall be made.
- (iii) Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring SPM, RSPM, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, in SPM and RSPM etc. shall be carried out at least one in six months.
- (iv) Data on ambient air quality (SPM, RSPM, SO₂ and NO_x and heavy metals such as Hg, As, Ni, Cr, etc) shall be regularly submitted to the Ministry including its Regional Office at Bhubaneswar and to the State Pollution Control Board and the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognised under the EP Rules, 1986 shall be furnished as part of the compliance report.
- (v) Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.
- (vi) Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed before discharge of workshop effluents.
- (vii) Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of the mineral shall be covered with tarpaulins and optimally loaded.
- (viii) Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data got analysed through a laboratory recognised under EP Rules, 1986.
- (ix) Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.
Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed.
- (x) A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.

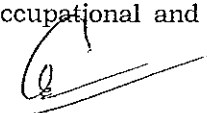
- (xi) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office at Bhubaneshwar.
- (xii) The Project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution control Board and may also be seen at the website of the ministry of Environment & Forests at <http://envfor.nic.in>.
- (xiii) A copy of the environmental clearance letter shall be marked to concerned Panchayat/ Zila Parishad/Municipal Corporation or Urban Local Body/ local NGO, if any, from whom any suggestion/representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on the company's website.
- (xiv) A copy of the clearance letter shall be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.
- (xv) The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the MOEF, the respective Zonal offices of CPCB and the SPCB. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in the public domain. The monitoring data of environmental quality parameters (air, water, noise and soil) shall also be displayed at the entrance of the project premises and mines office and in corporate office and on the company's website.
- (xvi) The Regional Office of this Ministry located at Bhubaneshwar shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.
- (xvii) The environmental statement for each financial year ending 31st March in Form-V 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 uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MOEF by E-mail.

3. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

4. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the Environment (Protection) Act, 1986.

5. The above conditions will be enforced *inter-alia*, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and Rules. The proponent shall ensure to undertake and provide for the costs incurred for taking up remedial measures in case of soil

contamination, contamination of groundwater and surface water, and occupational and other diseases due to the mining operations.


(Dr. T. Chandini)
Director

Copy to:

1. Secretary, Ministry of Coal, New Delhi.
2. Secretary, Department of Environment & Forests, Government of Orissa, Secretariat, Bhubaneswar.
3. Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, A-31, Chandrashekarapur, Bhubaneswar - 751023.
4. Chairman, Orissa State Pollution Control Board, Parivesh Bhawan, A/118, Nilkanthanagar, Unit VIII, Bhubaneswar - 751012.
5. Chairman, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -110032.
6. Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
7. District Collector, Angul, Government of Orissa.
8. Monitoring File 9. Guard File 10. Record File