



**Ministry of Environment & Forests**

Paryavaran Bhawan,  
C.G.O. Complex, Lodi Road  
New Delhi -110003.

No. J-11015/322/2010-IA.II (M)

To,

Dated: 14<sup>th</sup> September 2011

Director,

**M/s Monnet Ispat & Energy Ltd.,**

Monnet House, 11 Masjid Moth

Greater Kailash Part II, New Delhi-110048

**Sub: Establishment of Coal Washery (5 MTPA in an area of 12.13 ha) M/s Monnet Ispat & Energy Ltd., located at village Malibrahamani, Tehsil Chendipeda, Dist. Angul, Orissa- Environmental Clearance -reg.**

Sir,

This has reference to letter No. MIEL/HO/JPL/86 dated 11.10.2010 along with application for Terms of Reference (TOR) and this Ministry's grant of TOR vide letter dated 23.03.2011 your subsequent application for environmental clearance vide letter No. MIEL/JPL/ho/86 dated 10.06.2011 and letters dated 11.04.2011, 15.4.2011, 21.4.2011 on the above-mentioned subject. The Ministry of Environment & Forests has considered the application. The proposal is for establishing a new pit-head coal washery of 5 MTPA capacity, in compliance of EC condition given for the TPP for use of washed coal of 34% ash content only in the TPP, adjacent to the boundary of linked 2x525 MW Thermal Power Plant in an area of 12.13 ha. Out of total area of 12.13 ha, 8.34 ha is Govt. Land and 3.9 ha is agricultural land. There are no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 15 km buffer zone. Durgapur RF and Kaliakata RF are adjoining and there are seven Reserve Forests and three protected forests. An elephant corridor at 23 km from the plant. The washery is being established through an Indo-Japan Collaboration with technical support from New Energy and Industrial Technology Development Organisation (NEDO), Japan for use of Vari-Jig Auto Rejects Control System. The process to be used is a clean technology and would help in higher yield of clean coal (3% more) than conventional Batac Jig process technology. The Project is to be implemented under "Green Aid Plan" formally promoted by the Ministry of Economy and Trade and Industry (METI) of Japan and the Ministry of Finance and Ministry of Coal, GOI to support the efforts of India in addressing its energy and environmental related issues. The washery would receive raw coal of grade 'F' of 5 MTPA from its two captive coal mines namely Utkal B2 and from Mandakini Coal Block located at a distance of 4.4 km and from Mandakini Coal Block located at a distance of 22 km. The input raw coal of 5 MTPA with an ash content of about 44.6%, would yield about 3.57 MTPA of clean coal with an ash content of 34 % and the balance 1.43 MTPA of coal rejects would have a high ash content of 71% which would be utilised in the company's FBC based TPP in Chhattisgarh. The linked TPP and the two captive coal mines Utkal B2 and Mandakini have obtained environmental clearance from the Ministry on 29.06.2010, 28.07.2006 and 17.01.2011 respectively. The total water requirement of the washery is an estimated 2400 m3/d which would entirely be met from the Utkal B2 and Mandakini Coalmines and transported through pipelines. There would no wastewater generated from the process and the plant would operate on zero-discharge, i.e., no water would be discharged outside the washery premises and water would be recycled back to the Plant operations or used in green belt development. The clean technology with Japanese collaboration to be used in this washery also envisages no slurry ponds unlike conventional wet process washeries and hence no pollution



or wastes would be generated due to overflow of coal fines from conventional washeries with slurry ponds. The transportation of raw coal from Utkal B2 Coalmine and from Mandakini to the washery would be by conveyors within 2-3 years, until then it will be by road. The entire washed coal would be transported to the linked TPP by closed conveyors. Coal rejects would be sent to the company's FBC based TPP in Raigarh by rail. The initial transportation upto railway siding covering a distance of 12 km would be by road. Presently, the levels of air quality parameters including  $PM_{10}$  and  $PM_{2.5}$  are within prescribed limits in the study area. However, as the washery is located in Chendipeda Tehsil which forms a part of the Critically Polluted Area of Angul-Talcher Region, the company would implement mitigative measures at the washery and the linked TPP which would be in conformity with the Environmental Action Plan prepared for Angul-Talcher Area to keep the levels of air quality parameters well within limits. Budgetary allocation for CSR activity would be Rs 1 crore and Rs 60 lakhs would be recurring cost. Capital investment on Environmental Protection measures is Rs 275.32 lakhs which is @4% of project cost and recurring expenditure is Rs 73.63 lakhs/year. Life of washery is 30 years. Capital cost of project is Rs 68 crores.

**2.0** The Ministry of Environment & Forests hereby accords environmental clearance for the establishment of the above-mentioned **Coal Washery of 5 million tonnes per annum (MTPA) capacity in an area of 12.13ha of M/s Monnet Ispat & Energy Ltd.** under the provisions of the Environmental Impact Assessment Notification, 2006 and subsequent amendments thereto and under Circulars there under and subject to conditions specified below:

#### Specific Conditions

- (i) The transportation of entire raw coal from Utkal B2 Coalmine and from Mandakini Coalmine to the washery shall be by closed conveyors only. The closed conveyors from Utkal B2 Coalmine to the washery shall be laid within 2 years and from Mandakini Coalmine to the washery covering a distance of 22km shall be laid within a period of 3 years and thereafter, transport of raw coal from Mandakini Coalmine shall be by closed conveyors only.
- (ii) The entire washed coal transported to the linked TPP shall be by closed conveyors only.
- (iii) Coal rejects to be sent to the company's FBC based TPP in Raigarh shall be by rail. The initial transportation upto railway siding covering a distance of 12 km is to be by road. The proponent shall ensure that the road used for transportation of coal rejects to the Railway Siding is developed with a 3-tier avenue plantation using native species.
- (iv) As the washery is located in Chendipeda Tehsil which forms a part of the Critically Polluted Area of Angul-Talcher Region, the company shall implement preventive and mitigative measures at the washery and the linked TPP which would be in conformity with the Environmental Action Plan prepared for Angul-Talcher Area to keep the levels of air quality parameters well within limits.
- (v) The raw coal, washed coal and coal wastes (rejects) shall be stacked properly at earmarked site(s) within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored raw coal, washed coal and coal wastes do not catch fire.
- (vi) 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.
- (vii) All approach roads shall be black topped and all internal roads shall be black topped or concreted. The roads shall be regularly cleaned with mechanical sweepers. A 3-tier avenue plantation using local species shall be developed along the main roads, and approach roads to the washery.



- (viii) High capacity/tonnage trucks shall be engaged for mineral transportation outside the washery and shall be optimally loaded and covered with tarpaulin with no spillage en route. The trucks shall be properly maintained and emissions shall be below notified limits.
- (ix) The proponent shall maintain proper records of the ash content of raw (ROM) coal, clean coal and coal rejects and the same shall be uploaded along with quantum of raw coal obtained and washed and dispatched every month on the company website every month.
- (x) Water for the coal washery shall be met from mine water from the two captive coalmines only and transported by pipelines from the two coal mines. No groundwater shall be used for the washery plant operations. Any additional water requirement envisaged shall be obtained by recycle/reuse to the maximum extent and from rainwater harvesting measures.
- (xi) The Washery unit shall be a zero-discharge facility and no wastewater shall be discharged from the washery into the drains/natural watercourses. The Washery shall be provided with a garland drain to carry/recycle the effluents generated from the washery operations. Recycled water shall be used for development and maintenance of green belt and in the Plant Operations.
- (xii) A separate storm water drain to carry storm water from the washery for discharge outside the premises to nallahs/streams shall be established and desilted. The stormwater drains shall be regularly de-silted.
- (xiii) 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 19<sup>th</sup> May 1993 and 31<sup>st</sup> December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed for treatment of workshop effluents.
- (xiv) Green belt of 9.82 acres shall be developed using local species all along the periphery of the site, along the areas such as the crushing unit and stockyard, transfer and loading points.
- (xv) Socio-economic and welfare measures for the local communities shall be implemented under CSR with a capital outlay would be Rs 1 crore and an annual revenue expenditure of Rs 60.05 lakhs/year. The village-wise activities undertaken and proposed shall be displayed on the company website every year.
- (xvi) Levels of heavy metals such as mercury in raw coal, washed coal and rejects shall be analysed twice in a year and records maintained thereof.

#### **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 coal rejects 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 PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>. 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 PM<sub>10</sub> and PM<sub>2.5</sub> etc. shall be carried out at least once in six months.
- (iv) 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.

- (v) Data on ambient air quality (PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> and heavy metals such as Hg, As, Ni, Cr, etc) and other monitoring data 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) 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.
- (vii) 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.
- (viii) 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 Bhubaneswar.
- (ix) 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>
- (x) 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.
- (xi) 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.
- (xii) The clearance letter shall be uploaded on the company's website. 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) and critical pollutants such as PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> (ambient and stack if any) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mines office and in corporate office and on the company's website.
- (xiii) 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.

- (xiv) The Regional Office of this Ministry located Bhubaneswar 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.
- (xv) The environmental statement for each financial year ending 31<sup>st</sup> 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, Chandrashekarpur, 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