

No.J-11015/171/2015-IA-II(M)  
Government of India  
Ministry of Environment, Forest & Climate Change  
IA-II (Coal Mining) Division

Indira Paryavaran Bhawan,  
Jorbagh Road, N Delhi-3  
Dated: 30<sup>th</sup> March, 2017

To,

The Chief General Manager (CP&P)  
M/s Mahanadi Coalfields Limited  
PO - Jagruti Vihar, Burla,  
**Sambalpur** - 768 020 (Odisha)

E-mail: [cgmenvt2014@gmail.com](mailto:cgmenvt2014@gmail.com) ; [gmenvt\\_mcl@yahoo.co.in](mailto:gmenvt_mcl@yahoo.co.in)

**Sub: Coal Washery of 10 MTPA capacity in an area of 39.35 ha by M/s Mahanadi Coalfields Limited located at Ib Valley in Lakhanpur area in district Jharsuguda (Odisha) - Environmental Clearance reg.**

Sir,

This is with reference to your online proposal No. IA/OR/CMIN/27786/2015 dated 29.02.2016 vide letter No.MCL/HQ/Environment/Ib-Valley Washery/2016/2039 dated 29.02.2016.2016 and subsequent letters dated 04.03.2016, 05.03.2016, 17.03.2016, 25.05.2016, 19.12.2016, 21.12.2016, 27.12.2016, 19.01.2017, 20.01.2017 and 31.01.2017 on the above-mentioned subject.

2. The Ministry of Environment, Forest & Climate Change has considered the application. It is noted that the proposal is for grant of environmental clearance to the project of Coal Washery of 10 MTPA capacity in an area of 39.35 ha by M/s Mahanadi Coalfields Limited located at Ib Valley in Lakhanpur area in district Jharsuguda (Odisha).

3. The proposal was considered by the Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Projects in its 53<sup>rd</sup> meeting held on 17-18 March, 2016, 1<sup>st</sup> meeting of the reconstituted EAC held on 27<sup>th</sup> December, 2016 and 4<sup>th</sup> meeting held on 30-31 January, 2017. The details of the project, as per the documents submitted by the project proponent, and also as informed during the meeting, are as under:-

(i) The project was accorded ToR vide letter No. J-11015/171/2015-IA-II (M) dated 25<sup>th</sup> June, 2015.

(ii) It is a two stage washery having close circuit technology.

(iii) IB Valley Washery will be located in the mine leasehold of Belpahar OCP in Lakhanpur Area of IB Valley Coalfield in Jharsuguda District, Odisha. The total raw coal requirement of 10.0 MTPA for the proposed washery will be met from Proposed Lakhanpur-Belpahar-Lilari Integrated OCP (30 MTPA), however presently Lakhanpur OCP (18.75 MTPA), Belpahar OC Expn. (9.00 MTPA) and Lilari OCP (0.8 MTPA) is in operation where from coal will be supplied till linked OCP starts operation. IB Valley Washery has been proposed to be set up on BOM basis for beneficiation of raw coal (non-coking coal of grade-G-12 & average ash content 41.5%.) of Proposed Lakhanpur-Belpahar-Lilari Integrated OCP.

Ib Valley Washery 10 MTPA of MCL\_EC

- (iv) The latitude and longitude of the project are 21° 42' 12" N to 21° 47' 20" (N) and 83° 48' 00" E to 83° 52' 41" (E) respectively.
- (v) Joint Venture: No joint venture.
- (vi) Coal Linkage: Proposed Lakhanpur-Belpahar-Lilari Integrated OCP (30 MTPA), however presently Lakhanpur OCP (18.75 MTPA), Belpahar OC Expn. (9.00 MTPA) and Lilari OCP (0.8 MTPA) is in operation where from coal will be supplied till linked OCP starts operation. All the above three OCPs has EC from MoEF&CC.
- (vii) Employment generated / to be generated: Washery will be constructed on BOM concept; hence employment will be generated by BOM operator.
- (viii) Benefits of the project: The beneficiation/washing of coal will lead to improvement in performance of power plant, reduction in particulate emission, reduction in load on Railway Network and reduction in handling and transportation cost of coal and solid waste.
- (ix) The land usage of the project will be as follows: Total land involved for washery is 39.35 Ha. which is already acquired by MCL and is in possession of MCL (20.61 Ha. for washery construction & associated activities + 15.95 Ha. for temporary reject storage + 1.78 Ha. for clean coal conveyor corridor + 1.01 Ha. for SILO). Details of land acquired by MCL is as follows:  
 Govt. Forest land - Nil  
 Govt. Non-forest land - 7.28 Ha  
 Tenancy Land - 32.07 Ha  
 Total: 39.35 Ha.
- (x) The coal grade is G12.
- (xi) The total estimated water requirement is 2724 Cu. M/ day and the source of water supply is Quarry No. 5 of Belpahar OCP at a distance of 1-2 Km from Washery.
- (xii) The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.
- (xiii) Method of Washing: Washing technology is based on Heavy Media Separation (HM Cyclone) and the washing circuit is a closed circuit with zero water discharge.
- (xiv) Transportation: Mode of transportation of Raw Coal from linked mine to washery shall be by covered Belt conveyors, Washed Coal transportation from washery to SILO near railway siding will be done by twin covered belt conveyors(2X2000 TPH) for dispatch to consumers by Rail.Rejects will be transported by belt conveyor from washery to the temporary reject storage site where from reject will be finally disposed off to the prospective buyers either through e-auction or MOU Route in environment friendly manner.
- (xv) The life of Washery is 18 years for computation of economics.
- (xvi) There is no R & R involved. There are no PAFs.
- (xvii) Cost: Total capital cost of the project is Rs. 336.90 Crores as per Revised Conceptual Report(RCR) and Rs. 396.1713 Crores as per lowest bidder offer. R&R Cost: Nil. Environmental Management Cost (capital cost Rs 948.38 Lakhs and Operational Cost Rs. 654.60 Lakhs).
- (xviii) Water body: Ib River flows at a distance of 11.46 km east, Lilari Nullah flows at 1.5 Km (NE) and Pandren Nullah flows at 6.00 Km (NE).
- (xix) Approvals: Approval of Revised Conceptual Report of said washery on BOM concept was obtained from Board of Directors of MCL in its 162nd meeting held on 05.11.2014.
- (xx) Wildlife issues: There are no national Parks, Eco-sensitive Zones, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
- (xxi) Forestry issues: No forest area involved.
- (xxii) Green Belt over an area of 8 Ha. in and around washery premises shall be developed. Density of tree plantation shall be 1600 trees/ ha of plants.
- (xxiii) There are no court cases/violation pending with the project proponent.

(xxiv) Public Hearing was held on 15<sup>th</sup> February, 2016 at Indradhanush Club of Belpahar Integrated Township of Bandhabahal, District Jharsuguda. The issues raised during the public hearing include environmental problems and their adverse effect on health, water pollution to Lilari Nala, wastewater treatment plant, employment, proper utilization of CSR Fund, laying of foundation stone of the proposed washery prior to conduction of public hearing.

(xxv) Public Hearing was re-conducted on 31<sup>st</sup> August, 2016 at Project Primary School, Kandsar, Kusraloi GP, Lakhanpur Block, District Jharsuguda (Odisha) for setting up of 10 MTPA Ib Valley Coal Washery at Chharla of Lakhanpur Tehsil by M/s Mahanadi Coalfields limited. The issues raised during public hearing include CSR activities, environmental problems, employment and benefits, etc. However, all issues were clarified to the satisfaction of the local public/villagers and other stakeholders.

4. The EAC, after detailed deliberation on the proposal in the 4<sup>th</sup> meeting on 30-31 January, 2017 recommended the project for grant of Environmental Clearance. The Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to **Coal Washery of 10 MTPA capacity in an area of 39.35 ha by M/s Mahanadi Coalfields Limited located at Ib Valley in Lakhanpur area in District Jharsuguda (Odisha)** in terms of the provisions of the Environment Impact Assessment Notification, 2006 under the Environment (Protection) Act, 1986 and subsequent amendments/circulars thereto, subject to the compliance of terms and conditions and environmental safeguards mentioned below:-

**A. Specific Conditions:**

- (i) The washery shall be as per project report submitted and presented to EAC.
- (ii) The technology so chosen for the washery should conform to 'Zero Liquid Discharge'.
- (iii) Thick green belt of 30-45 m width to be provided around the washery to mitigate/check the dust pollution. A 3-tier avenue plantation should also be developed along vacant areas, storage yards, loading/transfer points, and also along internal roads/main approach roads.
- (iv) Transport of raw coal, clean coal, middling and rejects by rail with wagon loading through silo.
- (v) Disposal of washery rejects shall be in accordance with the extant policy and guidelines, and environment friendly.
- (vi) Waste Water shall be effectively treated and recycled completely either for washery or maintenance of green belt around the plant.
- (vii) The assurances given during the Public Hearing and as per the Action Plan developed by the proponent should be implemented
- (viii) Hoppers of the coal crushing unit and washery unit shall be fitted with high efficiency bag filters or mist spray water sprinkling system 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.
- (ix) All approach roads shall be black topped and internal roads shall be concreted. The roads shall be regularly cleaned with mechanical sweepers.
- (x) Records of quantum and ash content of raw coal being washed, and clean coal and coal rejects produced from every batch of washing shall be maintained and details thereof be made available to Ministry whenever directed.
- (xi) No groundwater shall be used for the Plant Operations. Any additional water requirement envisaged shall be obtained by recycle/reuse of treated effluent and from rainwater harvesting measures.
- (xii) Socio-economic and welfare measures for the local communities for the adjoining villages

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shall be implemented under CSR. Activities under CSR activities to be undertaken for the adjoining villages shall be identified in consultation with the local authorities, the details of status of implementation of CSR and expenditure thereon which should be annually updated on the company website.

(xiii) Heavy metal content in raw coal, and washed coal shall be analysed once in a year and records maintained thereof.

(xiv) The commitment made by the Proponent to the issue raised during Public Hearing shall be implemented by the Proponent.

(xv) Corporate Environment Responsibility:

- The Company shall have a well laid down Environment Policy approved by the Board of Directors.
- The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished.
- To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

## **B. General Conditions**

(i) No change in technology and scope of working shall be made without prior approval of the Ministry of Environment, Forests & Climate Change.

(ii) Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> monitoring. 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 or an expert agency like NEERI, IIT's, other CSIR units. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc carried out at least once in six months. The unit shall install a continuous Ambient Air Quality Stations in premises to monitor online the values of PM<sub>10</sub>, PM<sub>2.5</sub> SO<sub>2</sub>, NO<sub>x</sub> and displayed on the entrance of the washery.

(iii) 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, Cd, Cr and other monitoring data shall be regularly submitted to Regional Office of the Ministry and to the State Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognised under the EPA rules, 1986 shall be furnished as part of compliance report once in a year.

(iv) Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in noisy areas like crushers, pumps, conveyors, bath, cyclones, etc shall be provided with ear plugs/muffs.

(v) Industrial waste water shall be properly collected and treated in sedimentation ponds and treated water shall be recycled in washing circuit and other usages. No effluent shall be discharge to surface water bodies.

(vi) Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.

(vii) Monitoring of effluent 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 EPA Rules, 1986.

(viii) Personnel (Departmental, Outsourced and casual if any) 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.

(ix) Occupational Health Surveillance Programme of all workers (Departmental, Outsourced and casual if any) shall be undertaken periodically to observe any ill effect due to exposure to dust and to take corrective measures, if needed and records maintained thereof. The quality of environment due to outsourcing and the health and safety issues of the outsourced manpower should be addressed by the company while outsourcing.

(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 not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional Office.

(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 & Climate Change at <http://envfor.nic.in>.

(xiii) A copy of the environmental clearance letter shall be marked to concern Panchayat/Zila Parishad, Municipal Corporation or Urban local body and 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 company's website.

(xiv) An Electronic copy of the environmental clearance letter shall be forwarded to State Pollution Control Board, Regional Office of the Ministry, District Industry Sector and Collector's Office/Tehsildar's Office for its display in public domain for 30 days.

(xv) The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated environmental clearance 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 public domain. The monitoring data of environmental quality parameter (air, water, noise and soil) and critical pollutant such as PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> (ambient) and critical sectoral parameters shall also be displayed at the entrance of the project premises.

(xvi) The project proponent shall submit six monthly compliance reports on status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the Ministry and the SPCB.

(xvii) The Regional Office of this Ministry located in the Region 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.

(xviii) The Environmental statement for each financial year ending 31 March in For -V is mandated to be submitted by the project proponent for 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&CC by e-mail.

5. The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report so also during their presentation to the EAC, and all the commitments made by the project proponent to the issues raised during Public Hearing shall be implemented in letter and spirit.

6. The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

7. The proponent shall setup an Environment Cell with responsibility and accountability to ensure implementation of all the EC Conditions.

8. 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.

9. 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 and any other orders passed by the Hon'ble Supreme Court of India/High Courts and any other Court of Law relating to the subject matter. 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 washery operations.

10. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

*SK*  
30/3/2017

(S. K. Srivastava)  
Scientist E

**Copy to:**

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi.
2. The Secretary, Department of Environment & Forest, Government of Odisha, Secretariat, Bhubaneswar
3. The Chief Conservator of Forests, Regional office (EZ), MoEF&CC, A-31, Chandrashekarapur, Bhubaneswar - 751023.
4. The Member Secretary, Odisha State Pollution Control Board, Neelakanth Nagar, Unit-VIII, Bhubaneswar
5. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi -110032
6. The Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
7. The Advisor, Coal India Limited, SCOPE Minar, Core-I, 4t Floor, Vikas Marg, Laxmi nagar, N Delhi
8. The IG (Wild life), Ministry of Environment and Forest, New Delhi
9. The District Collector, **Jharsuguda**, Government of Odisha
10. Monitoring File 11. Guard File 12. Record File 13. Notice Board

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30/3/2017

(S. K. Srivastava)  
Scientist E