

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,
New Delhi-110 003
Dated: 25th June, 2015

To

The Chief General Manager (CP&P)
M/s Mahanadi Coal Fields Ltd.,
P.O. Jagriti Vihar, BURLA,
Dist. Sambalpur-768020,
Odisha.

Email: gmenvt_mcl@yahoo.co.in

Subject: Coal Washery of 10 MTPA capacity in an area of 39.35 Ha by M/s Mahanadi Coalfields Limited located at 21° 42' 12" N to 21° 47' 20" (N) and 83° 48' 00" E to 83° 52' 41" (E) Ib Valley in Lakhanpur area village Chharla, in district Jharsuguda Odisha –TOR reg.

Sir,

This is with reference to your application no MCL/HQ/ENV/IB Valley/15/1419 dated 21.05.2015 of **M/s Mahanadi Coalfields Limited** and subsequent letter dated 06.06.2015; 08.06.2015 and 15.06.2015 seeking for Terms of Reference for the aforesaid project.

2. The proposal was considered by the **37th Expert Appraisal Committee (EAC) meeting held on 11th -12th June, 2015** and the proponent has informed that:

- i. This is green field project. 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.
- ii. IB Valley Washery is located in the present land area of Belpahar OC in Lakanpur Area of Ib valley Coalfield in Jharsuguda District, Odisha
- iii. Joint Venture: There is no joint venture.
- iv. Coal Linkage: Linked to Proposed Lakhanpur-Belpahar-Lilari Integrated OCP (30 MTY), however presently Lakhanpur OCP(18.75 MTY), Belpahar OC Expn.(9.00MTY) and Lilari OCP(0.8 MTY) is in operation where from coal will be supplied till linked OCP starts operation.
- v. Employment generated / to be generated: Washery will be constructed on BOM concept and employment will be generated by BOM operator.
- vi. Benefits of the project: It will lead to improvement in performance of power plant, reduction in particulate emission, Reduction in load on railway network and cost of handling and transportation.
- vii. The total land area required for the washery is 39.35 Ha. The entire land is already acquired by MCL and is in possession of MCL. Out of this (Site-A) measuring 13.95 Ha. is non-coal bearing virgin area, Site-C & Site-E measuring 6.67+15.95= 22.62 Ha. is coal bearing area within mining lease area of existing Belpahar OC Expn. in which the extraction of coal is in progress which will subsequently be back filled after complete extraction of full coal seam



prior to start of construction of proposed washery. There is no building on proposed site. Small Bushes exist on a small portion of washery construction site. Bushes will be cleared and leveling and dressing of land will be done as per requirement. Belpahar OCP is already operating and the proposed land for washery is within the acquired mining lease area of Belpahar OCP for which environmental clearance has been granted.

- viii. The total estimated water requirement is 2724 Cu. M/ day. Source of water to washery site from Hirakud back water or quarry no-5 of Belpahar OCP (1-2 km) from washery or existing eco tank (water catchment pond for rain water).
- ix. The life of Washery is 18 years.
- x. Washing Technology will be based on offer of lowest bidder. However, washing technology preferably shall be based on Jig. Bidders are free to offer any other improved/ proven technology being used elsewhere in the world. Washing circuit has to be necessarily a closed circuit with zero water discharge.
- xi. Transportation:
 - **Raw Coal:** To be transported from integrated lakhanpur-belpahar-lilari ocp to washery by two nos. of belt conveyors each of approx. 1200 tph capacity.
 - **Washed coal:** To be transported from IB valley washery to the proposed silo near railway siding by twin conveyor belts at a distance of 1-2 km.
 - **Rejects:** To be stacked on the identified filled up land adjacent to the washery, which will be finally disposed off to the prospective buyers
- xii. There is no R & R involved. There are no PAFs.
- xiii. Cost: Total capital cost of the project is Rs. 336.90 Crore.
- xiv. Water body: Ib River flows at a distance of 11.46 Km (E), Lilari Nullah at 1.5 Km (NE) and Pandren Nullah 6.00 Km (NE) from the project site.
- xv. Approvals: Board's approval obtained on 05.11.2014. Mining plan has been approved on 05.11.2014. Mine closure plan is an integral part of mining plan.
- xvi. Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
- xvii. Forestry issues: There is no forest area involved.
- xviii. Total afforestation plan shall be implemented at the end of mining. Green Belt over an area Approx. 3 Ha shall be developed around washery premises. Density of tree plantation 1600 trees/ ha of plants.
- xix. There are no court cases/violation pending with the project proponent.
- xx. Since it is pit head coal washery, alternate sites have not been considered.

3. The Expert Appraisal Committee (EAC) considered the proposal in its **37th Expert Appraisal Committee (EAC) meeting on 11th -12th June, 2015** and recommended TOR for Coal Washery project with the following specific TORs apart from generic TORs and general conditions for preparation of the Environmental Impact Assessment (EIA) Report and Environment Management Plan (EMP) in respect of the above mentioned project:

- i. Water requirement will be met only from quarry no. 5 of Belpahar.
- ii. No groundwater or water from Hirakund back waters will be tapped.
- iii. No warf loading will be permitted. The PP should construct (ct) additional silos.
- iv. The entire rejects generated will be sold to prospective buyers for use in thermal power plant etc. Firmed up MOU with the prospective buyers should be submitted at the time of EC request.
- v. No dispatch of rejects by roads except to nearby users.
- vi. The input coal will be transported by belt conveyors and washed coal will be dispatched from



- silo by Rail only as proposed by the PP.
- vii. Cumulative Impact Assessment within 10 km radius of the project site should be carried out while conducting EIA study.
 - viii. The washery should be a closed system with zero discharge.
 - ix. Community development activity should be initiated during the period when the washery is being setup.

4. Generic ToR for coal washery

- i. Siting of washery is critical considering to its environmental impacts. Preference should be given to the site located at pit head; in case such a site is not available, the site should be as close to the pit head as possible and coal should be transported from mine to the washery preferably through closed conveyer belt to avoid air pollution.
- ii. The washery shall not be located in eco-sensitive zones areas.
- iii. The washery should have a closed system and zero discharge. The storm drainage should be treated in settling ponds before discharging into rivers/streams/water bodies.
- iv. A thick Green belt of about 50 m width should be developed surrounding the washery.
- v. A brief description of the plant alongwith a layout, the specific technology used and the source of coal should be provided.
- vi. The EIA-EMP Repot should cover the impacts and management plan for the project of the capacity for which EC is sought and the impacts of specific activities, including the technology used and coal used, on the environment of the area (within 10km radius), and the environmental quality of air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts for the rated capacity. Cumulative impacts for air and water should be a part of EIA in case coal mine, TPP and other washeries are located within 10km radius. The EIA should also include mitigative measures needed to minimize adverse environmental impacts.
- vii. A Study Area Map of the core zone as well as the 10km area of buffer zone showing major industries/mines and other polluting sources should be submitted. These maps shall also indicate the migratory corridors of fauna, if any and areas of endangered fauna; plants of medicinal and economic importance; any ecologically sensitive areas within the 10 km buffer zone; the shortest distance from the National Park/WL Sanctuary Tiger Reserve, etc. alongwith the comments of the Chief Wildlife Warden of the State Government.
- viii. Data of one-season (non-monsoon) primary- base-line data on environmental quality of air (PM₁₀, PM_{2.5}, SO_x and NO_x, noise, water (surface and groundwater), soil be submitted.
- ix. The wet washery should generally utilize mine water only. In case mine water is not available, the option of storage of rain water and its use should be examined. Use of surface water and ground water should be avoided.
- x. Detailed water balance should be provided. The break-up of water requirement as per different activities in the mining operations vis-a-vis washery should be given. If the source of water is from surface water and/or ground water, the same may be justified besides obtaining approval of the Competent Authority for its drawl.
- xi. The entire sequence of mineral production, transportation, handling, transfer and storage of mineral and waste, if any, and their impacts on air quality should be shown in a flow chart with specific points where fugitive emissions can arise and specific pollution control/mitigative measures proposed to be put in place. The washed coal and rejects should be transport by train as far as possible. Road transport of washed coal and rejects should generally be avoided. In case, the TPP is within 10km radius, it should be through conveyer belt. If transport by rail is not feasible because of the topography of the area, the option for transport by road be examined in detail and its impacts along with the mitigation measures should be clearly brought out in



- EIA/EMP report.
- xii. Details of various facilities proposed to be provided in terms of parking, rest areas, canteen etc. to the personnel involved in mineral transportation, workshop and effluents/pollution load from these activities should be provided.
 - xiii. Impacts of CHP, if any, on air and water quality should also be spelt out along with Action Plan.
 - xiv. O.M. no. J-IIOI3/25/2014-IA.I dated 11th August, 2014 to be followed with regard to CSR activities.
 - xv. Details of Public Hearing, Notice(s) issued in newspapers, proceedings/minutes of Public Hearing, points raised by the general public and response/commitments made by the proponent along with the Action Plan and budgetary provisions be submitted in tabular form. If the Public Hearing is in the regional language, an authenticated English translation of the same should be provided. Status of any litigations/ court cases filed/pending, if any, against the project should be mentioned in EIA.
 - xvi. Analysis of samples indicating the following be submitted:
 - Characteristics of coal prior to washing (this includes grade of coal, other characteristics of ash, S and heavy levels of metals such as Hg, As, Pb, Cr etc).
 - Characteristics and quantum of coal after washing.
 - Characteristics and quantum of coal rejects.
 - xvii. Details of management/disposal/use of coal rejects should be provided. The rejects should be used in TPP located close to the washery as far as possible. If TPP is within a reasonable distance (10 km), transportation should be by conveyor belt. If it is far away, the transportation should be by rail as far as possible.
 - xviii. Copies of MOU/Agreement with linkages (for stand-alone washery) for the capacity for which EC is being sought should be submitted.
 - xix. Corporate Environment Responsibility:
 - a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
 - b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
 - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
 - d) To have proper checks and balances, the company should 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.
 - xx. A detailed action Plan for Corporate Social Responsibility for the project affected people and people living in and around the project area should be provided.
 - xxi. Permission of drawl of water shall be pre-requisite for consideration of EC.
 - xxii. Wastewater /effluent should conform to the effluent standards as prescribed under Environment (Protection) Act, 1986
 - xxiii. Details of washed coal, middling and rejects along with the MoU with the end-users should be submitted.

5. The following general points should be noted:


- (i) All documents should be properly indexed, page numbered.
- (ii) Period/date of data collection should be clearly indicated.
- (iii) Authenticated English translation of all material provided in Regional languages.

- (iv) After the preparation of the draft EIA-EMP Report as per the aforesaid TOR, the proponent shall get the Public Hearing conducted as prescribed in the EIA Notification 2006 and take necessary action for obtaining environmental clearance under the provisions of the EIA Notification 2006.
- (v) The letter/application for EC should quote the MOEF file No. and also attach a copy of the letter prescribing the TOR.
- (vi) The copy of the letter received from the Ministry on the TOR prescribed for the project should be attached as an annexure to the final EIA-EMP Report.
- (vii) The final EIA-EMP report submitted to the Ministry must incorporate the issues in TOR and that raised in Public Hearing. The index of the final EIA-EMP report, must indicate the specific chapter and page no. of the EIA-EMP Report where the specific TOR prescribed by Ministry and the issue raised in the P.H. have been incorporated. Mining Questionnaire (posted on MOEF website) with all sections duly filled in shall also be submitted at the time of applying for EC.
- (viii) General Instructions for the preparation and presentation before the EAC of TOR/EC projects of Coal Sector should be incorporated/followed.
- (ix) The aforesaid TOR has a validity of two years only.
- (x) Grant of TOR does not necessarily mean grant of EC.
- (xi) Grant of TOR/EC to the present project does not necessarily mean grant of TOR/EC to the captive/linked project.
- (xii) Grant of TOR/EC to the present project does not necessarily mean grant of approvals in other regulations such as the Forest (Conservation) Act 1980 or the Wildlife (Protection) Act, 1972.
- (xiii) Grant of EC is also subject to Circulars issued under the EIA Notification 2006, which are available on the MOEF website: www.envfor.nic.in

6. You are required to submit the final EIA/EMP prepared as per TORs to the Ministry for considering the proposal for environmental clearance within 3 years as per the MoEF O.M. No. J-11013/41/2006-IA. II (I) dated 22nd August, 2014.

7. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India / National Accreditation Board of Education and Training (QCI/NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other Organization(s)/Laboratories including their status of approvals etc. vide notification of the MoEF dated 19th July, 2013.

Yours faithfully,



(Dr. R. Warriér)
Director

**Copy to: Member Secretary, Orissa State Pollution Control Board, Neelakanth Nagar, Unit VIII,
Bhubaneswar, Odisha.**



