

No. J-11015/320/2009-IA.II(M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
CGO Complex,
New Delhi-110510.

To

Dated: 23rd September 2010

Director,
M/s Gondhkari Coal Mining Ltd.,
4th Floor, UCO Bank Building,
5, Parliament Street,
New Delhi-110001.

Sub: Gondhkari Coalmine Project (1 MTPA in 1130 ha) Mining Ltd. located in Kamptee Coalfield, dist. Nagpur, Maharashtra - Terms of Reference (TOR) – reg.

Sir,

This is with reference to letter no. GCML:WS:KIL:EIA-EMP:09-10 dated 18.11.2009 and letter no. CGM:EIA dated 26.04.2010 regarding the aforesaid proposal which was considered by the Expert Appraisal Committee (Thermal & Coal Mining) in the meeting held on 30th -31st August 2010. It was informed that the location of the proposed underground coal mine project is at a distance of 29km from the extended buffer zone of the Pench Tiger Reserve. It was informed that it is a fully explored block. Grade of coal varies from B to G. Grade B would be despatched to their DRI Plant. The block has two sections – eastern and western sections. Life of the project is 38 years. Incline would branch off to two. Mining Plan has been approved by MOC. It was stated that mining by Board & Pillar method with partial caving will not result in subsidence. Ultimate working depth is 400m bgl after 30 years. Groundwater abstraction is not expected to be significant as the water table is high in the region. The proposal does not involve any modification of natural drainage. However, there would be no mining carried out near the water reservoir in the easterly direction. No danger is anticipated as there is a 400m thick basalt barrier in between the reservoir and the mining area. Surface area rights would be for 40ha only which includes establishing a railway siding within the mine lease for transport of coal from the ML to its linked project by rail covering a distance of 7km. The rail mode of despatch however depends on the final approval based on study of the terrain which has hillocks between the mine and the TPP. The option of transport by conveyors would also be examined. NO R&R is involved.

The Committee desired that a map authenticated by the PCCF (WL), Maharashtra indicating the shortest distance from the Tiger Reserve should be furnished. The Committee desired that a detailed Area Drainage Study should be carried out including Risk Assessment and Disaster Management Plan in case of emergency as part of the EIA-EMP study. The Committee desired that a copy of the Mining Plan would be furnished along with MOC approval letter. The Committee desired that the all options of coal evacuation using rail-cum-conveyor mode for coal transportation should be studied and desired that truck transportation should be avoided outside the ML area. The Committee also desired that a Subsidence Study with Subsidence Prediction Modelling should be carried out as part of the EIA-EMP study. The Committee desired that a detailed pre-mining survey of the local

communities in and around the project should be carried out and based on which activities under CSR should be formulated. The Committee desired that the AAQ stations be relocated and a one-season data be generated for air quality using PM10 and PM 2.5 as parameters. Water quality analysis should also be done as the project is part of Bina River Catchment. The Committee desired that the P.H. should be held on the project site or in its close proximity.

Based on the application along with documents and presentation thereon and discussions held, the Committee prescribed the following TOR:

- (i) An EIA-EMP Report should be prepared for a peak capacity of **1 MTPA in 1130 ha** addressing the impacts of the underground coalmine project including the aspects of mineral transportation and issues of impacts on hydrogeology, plan for conservation of flora/fauna and afforestation/ plantation programme based on the generic structure specified in Appendix III of the EIA Notification 2006.. Baseline data collection can be for any season except monsoon.
- (ii) The EIA-EMP report should also cover the impacts and management plan for the project specific activities on the environment of the region, and the environmental quality – air, water, land, biotic community, etc. through collection of baseline data and information, generation of baseline data on impacts for 1 MTPA of coal production based on approval of project/Mining Plan.

A Study area map of the core zone and 10km area of the buffer zone (15 km of the buffer zone in case of ecologically sensitive areas) delineating the major topographical features such as the land use, drainage, locations of habitats, major construction including railways, roads, pipelines, major industries/mines and other polluting sources, which shall also indicate the migratory corridors of fauna, if any and the areas where endangered fauna and plants of medicinal and economic importance are found in the area. The Committee desired that a map authenticated by the PCCF (WL), Maharashtra indicating the shortest distance from the Tiger Reserve should be furnished.

Map showing the core zone along with 3-5 km of the buffer zone) delineating the agricultural land (irrigated and unirrigated, uncultivable land (as defined in the revenue records), forest areas (as per records) and grazing land and wasteland and water bodies.

Contour map at 3m interval along with Site plan of the mine (lease/project area with about 3-5 km of the buffer zone) showing the various surface structures such as buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within/adjacent to the ML), green belt and undisturbed area and if any existing roads, drains/natural water bodies are to be left undisturbed along with details of natural drainage adjoining the lease/project and modification of thereof in terms of construction of embankments/bunds, proposed diversion/rechannelling of the water courses, etc., highways, passing through the lease/project area.

Original land use (agricultural land/forestland/grazing land/wasteland/water bodies) of the area. Impacts of project, if any on the landuse, in particular, agricultural land/forestland/grazing land/water bodies falling within the lease/project and acquired for mining operations. Extent of area under surface rights and under mining rights.

Study on the existing flora and fauna in the study area carried out by an institution of relevant discipline and the list of flora and fauna duly authenticated separately for the core and buffer zone and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna. The flora and fauna details should be furnished separately for the core zone and buffer zone. The report and the list should be authenticated by the concerned institution carrying out the study and the names of the species scientific and common names) along with the classification under the Wild Life Protection Act, 1972 should be furnished.

Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working plan/scheme until end of mine life should be reflected on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan.

Geological maps should also be included.

Impact of mining on hydrology, modification of natural drainage, diversion and channelling of the existing rivers/water courses flowing through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon. The Committee desired that a detailed Area Drainage Study should be carried out including Risk Assessment and Disaster Management Plan in case of emergency as part of the EIA-EMP study.

The Committee desired that the AAQ stations be relocated and a one-season data be generated for air quality using PM10 and PM 2.5 as parameters. Water quality analysis should also be done as the project is part of Bina River Catchment. Collection of one-season (non-monsoon) primary baseline data on environmental quality – air (PM10, PM2.5, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil.

Map of the study area (core and buffer zone) clearly delineating the location of various monitoring stations (air/water/soil and noise – each shown separately) superimposed with location of habitats, wind roses, other industries/mines, polluting sources. The number and location of the stations should be selected on the basis of the proposed impacts in the downwind/downstream/groundwater regime. One station should be in the upwind/upstream/non-impact non-polluting area as a control station. Wind roses to determine air pollutant dispersion and impacts thereof shall be determined. Monitoring should be as per CPCB guidelines and standards for air, water, noise notified under Environment Protection Rules. Parameters for water testing for both ground and surface water should be as per ISI standards and CPCB classification of surface water wherever applicable.

Impact of mining and water abstraction and mine water discharge in mine on the hydrogeology and groundwater regime within the core zone and 10km buffer zone including long-term modelling studies on the impact of mining on the groundwater regime. Details of rainwater harvesting and measures for recharge of groundwater should be reflected wherever the areas is declared dark/grey from groundwater development.

Study on subsidence, measures for mitigation/prevention of subsidence, modelling subsidence prediction and its use during mine operation, safety issues.

Detailed water balance should be provided. The break up of water requirement as per different activities in the mining operations, including use of water for sand stowing should be given separately. Source of water for use in mine, sanction of the competent authority in the State Govt. and impacts vis-à-vis the competing users should be provided.

Impact of choice of mining method, technology, selected use of machinery - and impact on air quality, mineral transportation, coal handling & storage/stockyard, etc, Impact of blasting, noise and vibrations.

The Committee desired that the all options of coal evacuation using rail-cum-conveyor mode for coal transportation should be studied and desired that truck transportation should be avoided outside the ML area. Impacts of mineral transportation – within and outside the lease/project. The entire sequence of mineral production, transportation, handling, transfer and storage of mineral and waste, and their impacts on air quality should be shown in a flow chart with the specific points where fugitive emissions can arise and the specific pollution control/mitigative measures proposed to be put in place. Examine the adequacy of roads existing in the area and if new roads are proposed, the impact of their construction and use particularly if forestland is used.

Details of various facilities to be provided in terms of parking, rest areas, canteen, and effluents/pollution load from these activities. Examine whether existing roads are adequate to take care of the additional load of mineral and their impacts.

Examine the number and efficiency of mobile/static water sprinkling system along the main mineral transportation road within the mine, approach roads to the mine/stockyard/siding, and also the frequency of their use in impacting air quality.

Impacts of CHP, if any on air and water quality. A flow chart of water use and whether the unit can be

made a zero-discharge unit.

Conceptual mine closure plan along with the fund requirement for the detailed activities proposed there under. Impacts of change in land use for mining operations and whether the land can be restored for agricultural use post mining.

Occupational health issues. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower for the mine should be furnished.

Details of cost of EMP (capital and recurring) in the project cost and for final mine closure plan. The specific costs (capital and recurring) of each pollution control/mitigative measures proposed in the project until end of mine life and a statement that this is included in the project cost.

Integrating in the Env. Management Plan with measures for minimising use of natural resources – water, land, energy, raw materials/mineral, etc.

The Committee desired that a detailed pre-mining survey of the local communities in and around the project should be carried out and based on which activities under CSR should be formulated.

Public Hearing should cover the details as specified in the EIA Notification 2006, and include notices issued in the newspaper, proceedings/minutes of public hearing, the points raised by the general public and commitments by the proponent made should be presented in a 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 on the project.

) Submission of sample test analysis of:

i) Characteristics of coal - this includes grade of coal and other characteristics – ash, S and heavy metals including levels of Hg, As, Pb, Cr etc.

Copy of clearances/approvals – such as Forestry clearances, Mining Plan Approval, NOC form Flood and Irrigation Dept. (if req.), etc.

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 in Regional languages provided/enclosed with the application.

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.

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.

(vi) The letter/application for EC should quote the MOEF file No. and also attach a copy of the letter prescribing the TOR.

(vii) 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.

(viii) Mining Questionnaire (posted on MOEF website) with all sections duly filled in shall also be submitted at the time of applying for EC.

The following additional points are also to be noted:

(i) Grant of TOR does not necessarily mean grant of EC.

(ii) Grant of TOR/EC to the present project does not necessarily mean grant of TOR/EC to the captive/linked project.

(iii) 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.

Yours faithfully,

(Dr.T.Chandini)
Director

Copy to: Chairman, Maharashtra State Pollution Control Board, 3rd & 4th Floor, Sion, Matunga Scheme Road. No.8, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), MUMBAI – 400002.

No. J-11015/320/2009-IA.II(M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
CGO Complex,
New Delhi-110510.

To

Dated: 21st March 2011

Director,
M/s Gondhkari Coal Mining Ltd.,
4th Floor, UCO Bank Building,
5, Parliament Street,
New Delhi-110001.

MODIFICATION OF TOR

Sub: Gondhkari Coalmine Project (1 MTPA in 1130 ha) I Mining Ltd. located in Kamptee Coalfield, dist. Nagpur, Maharashtra - Letter dated 15.10.2010 for revising ML area from 1130 ha to 977ha in the Terms of Reference (TOR) issued dated – reg.
Sir,

This is with reference to your letter No. GCML:WS:MoEF:TOR dated 15.10.2010 on the aforesaid subject on the TOR granted by this Ministry vide letter dated 23.09.2010 seeking Modification of TOR for revising the ML area from 1130 ha to 977 ha, which was considered in the EAC (T&C) meeting held on 24th -25th January 2010. It was informed that of the original total ML area of 1130 ha, it has been decided during consideration of the Mining Plan for the project to reduce the ML area to 970 ha which is coal bearing and an additional 7 ha has been added for accommodation of the main Incline of Mine No.7.

The Committee recommended the total revised ML area of 977 ha, which includes 7 ha for accommodation of the main Incline of Mine No.7.

The TOR is hence modified as given below:

- (i) In Sub., replace 1130 with 977.
- (ii) page 2, second para, (i), replace 1130 with 977.

Yours faithfully,

(Dr.T.Chandini)
Director

Copy to: Chairman, Maharashtra State Pollution Control Board, 3rd & 4th Floor, Sion,
Matunga Scheme Road. No.8, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), MUMBAI
– 400002.