

By Speed Post/Online

No. J-11015/198/2014-IA.II (M)
Government of India
Ministry of Environment, Forest and Climate Change
Impact Assessment Division

Indira Paryavaran Bhavan,
Vayu Wing, 3rd Floor,
Aliganj, Jorbagh Road,
New Delhi-110 003

Dated: 5th January, 2017

To,

M/s Mineral Exploration Corporation Ltd.

Dr. Babasaheb Ambedkar Bhawan,
Seminary Hills, Nagpur,
Maharashtra-440006

E-mail: mining@mecl.gov.in

Tel: 0712-2511839 Fax: 0712-2510548

Sub.: Serangdag Bauxite Mine Block-1 with production capacity of 1.2 Million TPA by M/s Mineral Exploration Corporation Ltd., located at Village: Serangdag, Tehsil: Samari, District: Surguja, Chhattisgarh (MLA 257.923ha)– Environmental Clearance regarding

Reference: Online Proposal no. IA/MIN/CG/23667/2014

Sir,

This has reference to your online application regarding the EC proposal of M/s Mineral Exploration Corporation Ltd. for Serangdag Bauxite Mine with production capacity of 1.2 MTPA in the mine lease of 257.923ha. The mine lease area is located at Village: Serangdag, Tehsil: Samari, District: Surguja, Chhattisgarh. The latitude & longitude of the mine lease area lies between 23°20' 00" N and 23°21'45" N, and Longitude 83°54' 00" E and 83°55'30" E. The site is located on Survey of India Toposheet No. 64M/15

2. The Terms of Reference (ToR) was issued by MoEF&CC vide letter of even no. dated 19.08.2014. The Proponent submitted the EIA/EMP Report online to Ministry for seeking environmental clearance. The proposal EC was placed before the EAC meeting held during August 22-23, 2016 wherein the Committee deferred the proposal. Based on the revised Report submitted by PP, the proposal of EC was again appraised in the EAC meeting held during September 19-20, 2016 wherein the Committee recommended the EC proposal of Serangdag Bauxite Mine Block-1 with production capacity of 1.2 MTPA subject to submission of (i) Updated status of application for NBWL; and (ii) Clarification with respect to discrepancy in the document in respect of mine lease area. The Ministry, vide letter dated 25th October 2016, requested the Project Proponent to submit the information as sought by the Committee. In this context, Project Proponent, vide letter dated 27.10.2016 has submitted that (i) the correct mine lease area is 257.923ha and mine plan has also been approved for the 257.923 ha.; and (ii) Project Proponent have initiated the action for preparation of NBWL clearance.

3. The total Mining Lease area of 257.923 ha. Out of which 255.015 ha is Agriculture land, 0.631ha is surface water body and 2.277 ha is Kuccha road. Project Proponent reported that there is no forest land involved in the mine lease area. Out of total MLA 94ha area shall be required for mining activity. The Mineral Resource Department, State Govt. of Chhattisgarh, vide letter dated 26.09.2005 has issued Letter of Intent for Mining of Bauxite ore in favour of M/s MECL for an area of 257.923 ha. Method of mining is opencast semi-mechanised. Conventional shovel dumper combination of opencast mine will be deployed. The wastes generated in the form overburden, sizing and sorting of ore will be disposed of within mined out pit area. Manual sorting, sizing and blending of ROM Bauxite will be done to obtain saleable grade of Bauxite at the pit head. The potable water requirement at Mine site is 47.5 KLD. The source of water will be existing bore wells in the nearby village initially. The Project Proponent has indicated that they would make their own bore wells in the MLA after commencing mining activities. The Mining Plan along with Progressive Mine Closure Plan has been approved by IBM, Nagpur vide letter dated 11.08.2006. The approximate total Mineable reserve is 19,87,680 tonnes.

4. Based on the DSS, the Committee noted that the Mahuadanr Wildlife Sanctuary is located at 8.3Km within the study area (10 Km radius of the Mine boundary). NBWL clearance is mandatory for this project. Accordingly, the Project Proponent, vide letter dated 26.09.2016 has informed that they have initiated the action for obtaining necessary NBWL clearance. The baseline data was generated for the period during winter season. The Committee deliberated the baseline data collected by the Project Proponent

5. The Public Hearing for the proposed project was conducted on 01.03.2016 at Serangdag village, District Balrampur. The Public Hearing was presided by Shree Bhagwan Singh Uikey, Additional Collector & Additional District Magistrate, Balarampur-Ramanujgan. The Regional Officer, Chhattisgarh Environmental Conservation Board (CECB), Ambikapur was also present. The issues raised during the Public Hearing, commitment made by the Project Proponent and action Plan with the Budgetary provisions has been discussed during the meeting. The Project Proponent has made the action Plan along with budgetary provisions. The Committee deliberated and is of the view that the project proponent needs to implement the Action Plan and the implementation report has to be submitted to the Regional office of the MoEFCC every six months.

6. Project Proponent reported that the project involves R&R. There is no habitant/ homestead in the MLA. The Project Proponent reported that there are 98 land outsees involved for land acquisition. Land will be acquired in five phases; details are in the R&R Plan. Land compensation details for 98 land outsees for Rs.2180.31 lakhs has been estimated. An amount of Rs.462 lakhs has been kept in budgetary provision for requirement of initial two years of mining. Balance amount towards land acquisition for four phases will be provided from revenue of Bauxite. The Project Proponent has reported that one person from land outsees family will be engaged in the Mine developer cum operator(MDO) establishment engaged for carrying out mining. Skill development programme will be arranged by the project for skill development of 53 landless workers of affected land acquisition. Apart from that five students of the village with qualification above secondary standard and having aptitude for technical skill will be imparted technical skill training in nearest ITI and fees for that will be provided from the project. They may later be considered for engagement in MDO establishment, if vacancy persists. 10 educated youths of the village will be considered for providing training to MECL drill machines

in the nearest project if they are willing. They may later be considered for engagement in MECL, if opportunity arises. Basic amenities will be provided as per CSR activities of the company. A sum of Rs.22 lakhs has been kept during initial period for community development. 2% of the profit of the previous year will be used for sustaining the CSR activities. The Committee deliberated the issues on R&R and is of the view that the Project Proponent shall constitute a Committee to monitor the R&R related issues for its implementation with the consultation of the District Authority.

7. The capital cost estimated for the proposed mine is Rs.1919 lakhs. The Project Proponent has earmarked Rs.146 lakhs towards EMP has capital cost and Rs.14.6 lakhs per annum as recurring cost. The Project Proponent was earmarked Rs. 20 Lakhs in initial year for Socio-Economic welfare measures for the nearby village; Rs. 462 lakhs towards R&R cost and Rs. 14.75 Lakhs towards Progressive Mine Closure Plan. The Project Proponent reported that there is no court case/litigation pending against the project.

8. The Ministry of Environment, Forest and Climate Change has examined the proposal in accordance with the Environmental Impact Assessment Notification, 2006 and further amendments thereto and hereby accords the environmental clearance under the provisions thereof to the above mentioned proposal of **M/s Mineral Exploration Corporation Ltd. for Serangdag Bauxite Mine Block-1 with production capacity of 1.2 MTPA, located at Village: located at Village: Serangdag, Tehsil: Samari, District: Surguja, Chhattisgarh in the mine lease area of 257.923ha** subject to compliance of the followings terms and conditions and environmental safeguards mentioned below:

A. Specific conditions

- 1) **Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court of Chhattisgarh, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.**
- 2) **The Mahuadanr Wildlife Sanctuary is located at 8.3 Km from mine lease area. This Environmental Clearance is subject to obtaining requisite NBWL Clearance from the Standing Committee of National Board for Wildlife as applicable for this Mining project.**
- 3) **This Environmental clearance is granted subject to necessary permissions for change in land use to be obtained from the Competent Authority/State Government as required under/by law before commencing the activities.**
- 4) The Project Proponent shall obtain Consent to Operate from the State Pollution Control Board, Chhattisgarh and effectively implement all the conditions stipulated therein.
- 5) **The Project Proponent reported that a sum of Rs. 22 lakhs has been kept during initial period for community development. 2% of the profit of the previous year will be used for sustaining the CSR activities. Project Proponent shall constitute a Committee to monitor the R&R related issues for its implementation with the consultation of the District Authority. The implementation report has to be submitted to the Regional office of the MoEFCC every six months.**

- 6) The Project Proponent shall implement the Action Plan on the issues raised during public hearing and the implementation report has to be submitted to the Regional office of the MoEFCC every six months.
- 7) The Proponent shall install online Ambient Air Quality Monitoring System and there should be system for display of digital AAQ data within 03 months at least at three locations as per wind direction. Online provisions of pH and turbidity meters at discharge points of STP and ETP and also at water storage ponds in the mining area may be made. Project Proponent should display the result digitally in front of the main Gate of the mine site.
- 8) Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities.

B. Standard conditions

- 1). A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment, Forest and Climate Change 5 years in advance of final mine closure for approval.
- 2). No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment, Forest and Climate Change.
- 3). No change in the calendar plan including excavation, quantum of mineral and waste should be made.
- 4). The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water) for the project.
- 5). Mining shall be carried out as per the provisions outlined in mining plan approved by Indian Bureau of Mines (IBM)/State Mines and Geology Department as well as by abiding to the guidelines of Directorate General Mines Safety (DGMS).
- 6). The lands which are not owned by Proponent, mining will be carried out only after obtaining the consents from all the concerned land owners as per the provisions of the Mineral Concession Rules, 1960 and MMDR Act, 1957.
- 7). Digital processing of the entire lease area using remote sensing technique shall be carried out regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment, Forest and Climate Change its Regional Office.

- 8). The critical parameters as per the Notification 2009 such as PM₁₀, PM_{2.5}, NO_x, and SO_x etc. in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS))]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
- 9). Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM₁₀ and PM_{2.5} such as haul road, loading and unloading point and transfer points. Fugitive dust emissions from all the sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard. Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board.
- 10). Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations. The monitoring shall be carried out four times in a year pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board.
- 11). Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table.
- 12). Regular monitoring of water quality upstream and downstream of water bodies shall be carried out and record of monitoring data should be maintained and submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.
- 13). Transportation of the minerals by road passing through the village shall not be allowed. A 'bypass' road should be constructed (say, leaving a gap of at least 200 meters) for the purpose of transportation of the minerals so that the impact of sound, dust and accidents could be mitigated. The project proponent shall bear the cost towards the widening and strengthening of existing public road network in case the same is proposed to be used for the

Project. No road movement should be allowed on existing village road network without appropriately increasing the carrying capacity of such roads.

- 14). The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.
- 15). Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers. The material transfer points should invariably be provided with Bag filters and or dry fogging system. In case of Belt-conveyors facilities the system should be fully covered to avoid air borne dust; Use of effective sprinkler system to suppress fugitive dust on haul roads and other transport roads shall be ensured.
- 16). Sufficient number of Gullies to be provided for better management of water. Regular Monitoring of pH shall be included in the monitoring plan and report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
- 17). There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.
- 18). The Project Proponent has to take care of gullies formed on slopes. Dump mass should be consolidated with proper filling/leveling with the help of dozer/compactors.
- 19). The reclamation at waste dump sites shall be ecologically sustainable. Scientific reclamation shall be followed. The local species may be encouraged and species are so chosen that the slope, bottom of the dumps and top of the dumps are able to sustain these species. The aspect of the dump is also a factor which regulates some climatic parameters and allows only species adopted to that micro climate.
- 20). The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. The maximum height of the dumps shall not exceed 8m and width 20 m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.

- 21). Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. The drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dumps to prevent run off of water and flow of sediments directly into the river and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.
- 22). Plantation shall be raised in a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department and as per CPCB Guidelines. The density of the trees should be around 2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.
- 23). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- 24). The Project Proponent shall make necessary alternative arrangements, where required, in consultation with the State Government to provide alternate areas for livestock grazing, if any. In this context, Project Proponent should implement the directions of the Hon'ble Supreme Court with regard to acquiring grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded against felling and plantation of such trees should be promoted.
- 25). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.
- 26). As per the Company Act, the CSR cost should be 2 % of average net profit of last three years. Hence CSR expenses should be as per the Company Act/Rule for the Socio Economic Development of the neighborhood Habitats which could be planned and executed by the Project Proponent more systematically based on the 'Need based door to door survey' by established Social Institutes/Workers. The report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.

- 27). Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- 28). Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.
- 29). Industrial waste water (workshop and waste water from the mine) should 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. Oil and grease trap should be installed before discharge of workshop effluents.
- 30). Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
- 31). A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- 32). The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office.
- 33). The project authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- 34). The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest and Climate Change, its Regional Office, Central Pollution Control Board and State Pollution Control Board.
- 35). The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
- 36). A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal.
- 37). State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.
- 38). The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue 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

also at web site of the Ministry of Environment, Forest and Climate Change at www.environmentclearance.nic.in and a copy of the same should be forwarded to the Regional Office.

9. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

10. 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.

11. 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 made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Chhattisgarh and any other Court of Law relating to the subject matter.

12. 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.

Yours faithfully,


(Surendra Kumar)
Director (S)

Copy to:-

- 1). **The Secretary**, Ministry of Mines, Government of India Shastri Bhawan, New Delhi.
- 2). **The Secretary**, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi-110 001.
- 3). **The Secretary**, Department of Environment, Government of Chhattisgarh, Chhattisgarh.
- 4). **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-cum office complex, East Arjun Nagar, Delhi-110032
- 5). **The Chairman**, Chhattisgarh Environment Conservation Board, Nanak Niwas, Civil Lines, Raipur, Chhattisgarh
- 6). **The Additional Principal Chief Conservator of Forests(C)**, Ministry of Environment, Forest and Climate Change, Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur - 440001.
- 7). **The Controller General**, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
- 8). **The Member Secretary**, Chhattisgarh State Pollution Control Board, Commercial Complex, Chhattisgarh Housing Board Colony, Kabir Nagar, Raipur, Chhattisgarh.
- 9). **The Member Secretary**, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.

- 10). The Chief Wildlife Warden** , Govt. of Chhattisgarh, Aranya Bhavan, Jail Road, Fafadih Chowk, Raipur – 492001.
- 11). The District Collector**, District- Surguja, Chhattisgarh.
- 12). Guard File**
- 13). MoEF&CC website.**


(Surendra Kumar)
Director (S)