



State Environment Impact Assessment Authority, M.P.
(Government of India, Ministry of Environment & Forests)

Environmental Planning & Coordination Organization

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No: 5407 / SEIAA /15

Date: 4.9.15

To,
M/s Anand Mining Corporation,
Pathak Ward, P.O. Katni,
District-Katni (MP) - 483501

Sub: Case No. 104/2008 - Prior Environment Clearance for **Dubiyara - Tikariya Iron Ore Mine** (Opencast other than fully mechanized method) in an area of 26.002 ha for Production Capacity of 1.0 Million TPA at New Khasra Nos. 742 (Tikariya) & 628/1 (Dubiyara) at **Village - Dubiyara-Tikariya, Tehsil- Sihora, District- Jabalpur (MP)**, by M/s Anand Mining Corporation, Pathak Ward, P.O. Katni, District - Katni(MP) - 483501.

This has reference to your application received in SEIAA office on 04.06.2008 and subsequent letters seeking Prior Environmental Clearance for the above project under the EIA Notification, 2006. The proposal has been appraised as per prescribed procedure in the light of provisions under the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., the Form - I, Pre-Feasibility Report, ToR and subsequently submission of EIA, Public Hearing proceedings and the additional clarifications furnished in response to the observations of the State Level Expert Appraisal Committee (SEAC) and State Level Environment Impact Assessment Authority (SEIAA) constituted by the competent Authority.

II. It has been noted that the proposal is for Iron Ore mine in an area of 26.002 ha. The mining lease area is located in Khasra Nos. 742 (Tikariya) & 628/1 (Dubiyara), Village: Dubiyara-Tikariya, Tehsil- Sihora, District- Jabalpur (M.P.). Geographically mining lease area falls under the co-ordinates - latitude $23^{\circ} 22' 35''$ to $23^{\circ} 22' 58''$ N and longitude $80^{\circ} 09' 35''$ to $80^{\circ} 09' 50''$ E. The nearest villages Tikaria is located at a distance of 0.10 Km, Goghri at 0.30 Km and Dubiyara at 0.40 Km. There is no National Park/Sanctuary and interstate boundary within 10 Km radius.

The proposed project is for production capacity of 1.0 Million TPA. The mining will be carried out by Open cast other than fully mechanized method. An area of 25.302 ha shall be covered under plantation and 62836 trees shall be planted at the end of lease period. The water requirement is 22 KLD (15 KLD for Dust Supression + 4 KLD for Green Belt + 3 KLD for Domestic purpose), it will be met by the groundwater and mine sump. The public hearing was conducted at mining parisar of M/s Anand Mining Corporation, village: **Dubiyara - Tikariya** on 02.09.2009.

III. The project has been considered in accordance with the provisions of the EIA notification issued by the Ministry of Environment & Forests vide S.O. 1533 (E), dated 14th September 2006.

IV. Based on the information submitted, as at Para (II) above and others the State Level Environment Impact Assessment Authority (SEIAA) considered the case in its 224th meeting dtd. 10.08.2015 and decided to accept the recommendations of 155th SEAC meeting dtd. 11.11.2014 and 203rd SEAC meeting dtd 03.07.2015.

Hence, Prior Environmental Clearance is granted for **Dubiyara - Tikariya Iron Ore Mine** (Opencast other than fully mechanized method) in an area of 26.002 ha for Production Capacity of 1.0 Million TPA at New Khasra Nos. 742 (Tikariya) & 628/1 (Dubiyara) at **Village - Dubiyara-Tikariya, Tehsil- Sihora, District- Jabalpur (MP)** for the lease period to M/s Anand Mining Corporation, Pathak Ward, P.O. Katni, District - Katni(MP) - 483501, subject to the compliance of following specific conditions as recommended by SEIAA & SEAC and subsequent Standard Conditions.

A. Specific Conditions

1. The PP shall demarcate a minimum buffer zone of 100 m from the periphery of the nearest human habitation of Tikariya & Dubyara village boundary in consultation with Revenue/Mining Department around the mining lease area and this will be treated as "no mining activity zone".
2. Develop a green belt of minimum 50 m of the demarcated buffer zone of suitable plant species like Khmer, Seija, Guava, Jackfruit, Karanj, Neem, Gulmohar, Mango, Shisham, Kachnar, Amla, Jamun, Agaves etc. This will be in addition to the existing plantation, which should be properly maintained, adequately densified and organised as a green belt.
3. Construct 6 m high compound wall towards the periphery of the crusher covering area including conveyor belt, transfer points etc. to act as a barrier for spread of dust particles towards the village area.
4. The overburden will be dumped horizontally in the South – East direction.
5. Water fogging arrangement on haul roads, loading and unloading and transfer point shall be provided and properly maintained.
6. Settling tank capacity shall be so fixed as to allow adequate retention period for proper settling of silt material.
7. In order to check siltation due to run off in seasonal water course during incessant rains, check dams will be prepared which will be de-silted after the rainy season.
8. Provision of toe wall/retention walls at the foot of the dumps.
9. The domestic waste water will be reused for plantation purposes.
10. Before dozing and excavation at top, water will be sprinkled.
11. The PP shall undertake the following activities in nearby villages on priority and made separate budget provisions more than Rs 5.00 lakh under the CSR for these activities:
 - a) Sanitation activities including construction of toilets in consultation with village Panchayat.
 - b) Installation of rainwater harvesting structure.
 - c) Plantation of fruit bearing plants in nearby villages.
12. PP should complete the Pakka Road from Sukha Nalla to Dharm Kanta to prevent dust destroying nearby agriculture fields.
13. PP has committed to maintain the approach road near the mining lease area and the road through which transportation of ore will be carried out. The lessee has made a provision of budget under CSR for fulfillment of the public hearing issue regarding strengthening of the road.
14. To mitigate any health hazard to the villagers in the close proximity of the mining site, due to exposure of ore dust the villagers and mining workers shall be examined periodically in order to determine early symptoms of any major ailment.
15. Individual health cards will be issued to the villagers of Tikariya & Dubiyara and mine workers including women and children. Every three months, the card holders will be examined in a health camp specially lung function test etc. (to be organized by PP) in consultation with the local panchayat.
16. Appropriate garland drains shall be constructed all around the OB dumps and these shall be connected to the settling tank of suitable size such that no silt may be drained outside the MLA.
17. Box type arrangement shall be provided to reduce spillage from screen hopper to conveyer belts.
18. Suitable exhaust and venting system of adequate capacity to be provided to guide the dust emanating from the crushers in to the stack through cyclone to collect the dust.

19. Hood for Screening, Classifier and Crusher b) Cover conveyor belts with semi circular eco friendly sheet. c) Rotary screen to be completely closed leaving space at bottom for collection. d) Considering predominant wind direction, wind breaking wall shall be constructed.
20. Provide dust containment facility at 1) Below crusher discharge area, 2) Vibratory screen and Belt conveyer transfer points.
21. Provide dust suppression system (i.e. water spray through nozzles) comprising of a water tank, Pump On-line water filter, GI pipes with valves and fittings and Water spray nozzles.
22. Adequate plantation all along the periphery of crusher premises.
23. No drilling and blasting shall be permitted in the mining operations.
24. A settling pond of suitable size & sufficient retention capacity should also be constructed in the ML area to collect the water from the garland drains /tow wall.

B. Standard Conditions

1. Any addition of the mining area, change of Khasra numbers, enhancement of capacity, change in mining technology, modernization and scope of working shall again require prior environmental clearance as per EIA notification, 2006.
2. All activities / mitigative measures proposed by PP in Environmental Impact Assessment and approved by SEAC must be ensured.
3. All activities / mitigative measures proposed by PP in Environmental Management Plan and approved by SEAC must be ensured.
4. All parameters listed in Environmental Monitoring Plan approved by SEAC must be monitored at approved locations and frequencies.
5. Blast vibrations study shall be conducted and submitted to the Regional Office, MoEF, Gol, Bhopal and MP PCB **within six months**. The study shall also provide measures for prevention of blasting associated impact on nearby houses and agricultural fields.
6. Controlled blasting techniques with sequential drilling shall be adopted. The blasting shall be carried out in the day time only.
7. Slope of the mining bench and ultimate pit limit shall be as per the mining scheme approved by Indian Bureau of Mines.
8. A final mine closure plan, along with details of Corpus Fund, shall be submitted to the Regional Office, MoEF, Gol, Bhopal and MP PCB within 5 years in advance of final mine closure for approval.
9. No change in the calendar plan including excavation, quantum of mineral and waste shall be made.
10. Mining will be carried out as per the approved mining plan. In case of any violation of mining plan, the Environmental Clearance given by SEIAA will stand cancelled.
11. Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.
12. The transportation of the minerals extracted from the mining area shall be limited to day hours time only.
13. Maintenance of nearby local roads through which transportation of minerals are undertaken shall be carried out by the company regularly at its own expenses. The roads shall be black topped.
14. Measures for prevention and control of soil erosion and management of silt shall be undertaken. Protection of dumps against erosion shall be carried out with geo textile

matting or other suitable material, and thick plantations of native trees and shrubs shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.

15. Trenches / garland drains shall be constructed at foot of dumps and coco filters installed at regular intervals to arrest silt from being carried to water bodies. Adequate number of check dams and gully plugs shall be constructed across seasonal/ perennial Nallahs, if any, flowing through the ML area and silts arrested. De-silting at regular intervals shall be carried out.
16. The project proponent will ensure necessary protection measures around the mine pit, waste dumps and garland drain.
17. Top soil / solid waste shall be stacked properly with proper slope and adequate safeguards and shall be utilized for backfilling (wherever applicable) for reclamation and rehabilitation of mined out area. Top soil shall be separately stacked for utilization later for reclamation and shall not be stacked along with over burden.
18. Over burden (OB) shall be stacked at earmarked dump site(s) only and shall not be kept active for long period. The maximum height of the dump shall not exceed 20 m, each stage shall preferably be of maximum 10 m and overall slope of the dump shall not exceed 35°. The OB dump shall be backfilled and shall be scientifically vegetated with suitable native species to prevent erosion & surface run off.
19. Minimum 1000 plants shall be planted in one year and 5000 plants shall be planted in first five years.
20. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Regional Office, MoEF, GoI, Bhopal and MP PCB on six monthly basis.
21. By the end of the lease period 33% of the area should be brought under plantation.
22. Green belt development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO / Agriculture Deptt. Herbs & shrubs shall also form a part of afforestation programme besides tree plantation. The company shall involve local people for plantation programme. Details of year wise afforestation programme including rehabilitation of mined out area shall be submitted to the Regional Office, MoEF, GoI, Bhopal and MP PCB every year.
23. Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of minerals and others shall have valid permissions as prescribed under Central Motor Vehicle Rules, 1989 and its amendments. The vehicles transporting minerals shall be covered with a tarpaulin or other suitable enclosures so that no dust particles / fine matters escape during the course of transportation. No overloading of minerals for transportation shall be committed. The trucks transporting minerals shall not pass through wild life sanctuary, if any in the study area.
24. Four ambient air quality-monitoring stations shall be established in the core zone as well as in the buffer zone for RSPM, SPM, SO₂, NO_x monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board. The monitored data for criteria pollutants shall be regularly up-loaded and displayed on the company's website.
25. Data on ambient air quality (RPM, SPM, SO₂, NO_x) should be regularly submitted to the Regional office, MoEF, GoI, Bhopal and the State Pollution Control Board / Central Pollution Control Board once in six months.
26. Ambient air quality at the boundary of the mine premises shall conform to the norms prescribed in MoEF notification no. GSR/826(E) dtd. 16.11.09.
27. Fugitive dust emissions from all the sources shall be controlled. Water spraying arrangement on haul roads, loading and unloading and at transfer points shall be


provided and properly maintained. The dust emission shall be monitored regularly as per norms and records to be submitted to the Regional Office, MoEF, Gol, Bhopal and MP PCB regularly.

28. Measures shall be taken for control of noise levels below 75 dBA in the work environment. Workers engaged in operations of HEMM, etc., shall be provided with ear plugs / muffs and health records of the workers shall be maintained.
29. Rain water harvesting shall be undertaken to recharge the ground water source. Status of implementation shall be submitted to the Regional Office, MoEF, Gol, Bhopal and MP PCB **within six months** and thereafter every year from the next consequent year.
30. Regular monitoring of ground and surface water sources for level and quality shall be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year i.e. pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected shall be regularly sent to Regional Office, MoEF, Gol, Bhopal, MP PCB, Central Ground Water Authority and Regional Director, Central Ground Water Board.
31. The waste water from the mine if any, shall be treated 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. The oil and grease trap shall be installed for the effluents generated from the workshop, if any, before discharging into the natural stream. The discharged water from the tailing dam, if any shall be regularly monitored and report submitted to the Regional Office, Ministry of Environment & Forests, Gol, Bhopal, Central Pollution Control Board, and the State Pollution Control Board.
32. Hydro-geological study of the area shall be reviewed by the project proponent annually. In case adverse effect on ground water quality and quantity is observed mining shall be stopped and resumed only after mitigating steps to contain any adverse impact on ground water is implemented.
33. Occupational health check up for the workers including identification of work related health hazards, training on malaria eradication, HIV, and health effects on exposure to mineral dust etc. shall be carried out. Periodic monitoring for exposure to respirable mineral dust on the workers shall be conducted and records maintained including health records of the workers. Awareness programme for workers on impact of mining on their health and precautionary measures like use of personal equipments etc. shall be carried out periodically. Review of impact of various health measures shall be conducted followed by follow up action wherever required. It should be made available for inspection whenever asked. Necessary funds for this also should be earmarked.
34. Project Proponent shall ensure appropriate arrangement for shelter and drinking water for the mine workers.
35. Persons working in dusty areas shall be provided with protective respiratory devices and they shall also be imparted adequate training and information on safety and health aspects.
36. Commitment towards CSR have to be followed strictly.
37. Special measures shall be adopted to prevent the nearby settlements from the impacts of mining activities.
38. The Project Proponent shall inform to the Regional Office, MoEF, Gol, Bhopal and MP PCB regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
39. The necessary funds as per mandate shall kept for environmental protective measures which should be kept in separate account and shall not be diverted for other purpose. Year wise expenditure shall be reported to the Regional Office, MoEF, Gol, Bhopal and MP PCB.

40. The Regional Office, MoEF, GoI, Bhopal and MP PCB shall monitor compliance of the stipulated conditions. A complete set of documents including Environment Impact Assessment Report, Environmental Management Plan, Public hearing and other relevant documents should be given to Regional Office, MoEF, GoI, Bhopal and MP PCB.
41. A copy of the environmental clearance shall be submitted by the Project Proponent to the Heads of the Local Bodies, Panchayat and Municipal Bodies, as applicable, in addition to the relevant officers of the Government who in turn has to display the same for 30 days from the date of receipt.
42. The Project Proponent shall 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 State Level Environment Impact Assessment Authority (SEIAA) website at www.mpseiaa.nic.in and a copy of the same shall be forwarded to the Regional Office, MoEF, GoI, Bhopal.
43. The project proponent has to strictly follow directions/guideline issued by the MoEF, GoI, CPCB and other Govt. agencies from time to time.
44. Action plan with respect to suggestion/improvement and recommendations made and agreed during public hearing consultation shall be submitted to the Regional Office, MoEF, GoI, Bhopal, MP PCB and to the competent authority of the State Govt. within six months.
45. The Project Proponent has to submit half yearly compliance report of the stipulated prior environmental clearance terms and conditions in hard and soft copy to the Regulatory Authority on 1st June and 1st December of each calendar year.
46. The SEIAA of M.P. reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
47. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
48. The Ministry or any other competent authority may alter/modify the conditions or stipulate any further condition in the interest of environment protection.
49. 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.
50. Any appeal against this prior environmental clearance shall lie with the Green Tribunal, if necessary, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
51. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
52. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral

parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.


53. The environmental statement for each financial year ending 31st March in Form-V as 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 put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the Regional Office of MoEF.


(Ajatshatru Shrivastava)
Member Secretary

Endt No. 5408 / SEIAA/15 Dated: 4.9.15

Copy to:-

1. Principal Secretary, Department of Environment, Government of Madhya Pradesh, Mantralaya, Bhopal.
2. Member Secretary, SEAC, Research and Development Wing Madhya Pradesh Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony Bhopal-4620 16
3. Member Secretary, Madhya Pradesh Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal-462016
4. Collector, District - Jabalpur, M. P.
5. Divisional Forest Officer, District - Jabalpur, M. P.
6. I.A. Division, Monitoring Cell, MoEF& CC, Gol, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi- 110 003.
7. Director (S), Regional office of the MoEF, Western Region, Kendriya Paryavaran Bhawan, Link Road No. 3 Ravi Shankar Nagar, Bhopal-462016.
8. Director, Geology & Mining, Madhya Pradesh, 29-A, Khanij Bhawan, Arera Hills, Bhopal - 462002.
9. District Mining Officer, District - Jabalpur, M. P.
10. Guard file


(Dr. R.K.Jain)
Officer-in-Charge