



F. No. J-11015/125/2018-IA. II (M)  
Government of India  
Ministry of Environment, Forest and Climate Change  
Impact Assessment Division

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Dated: 31<sup>st</sup> August, 2020

To,

M/s JSW Cement Limited  
(Shri Nilesh Narwekar)  
JSW Centre, Bandra Kurla Complex  
Bandra (East), Mumbai  
Maharashtra-400051

**Subject: Limestone Mine {Block 3B2, Applied ML Area- 470.00 ha} with limestone production capacity of 3.8 Million TPA, Waste and Topsoil: 4.887 Million M<sup>3</sup> per annum by M/s JSW Cement Ltd. located near Village- Sarasani, Tehsil- Nagaur, District: Nagaur, Rajasthan. - EC Regarding**

Sir,

This has reference to proposal no. IA/RJ/MIN/80856/2018 dated 30.09.2018 of M/s JSW Cement Ltd. for mining of limestone for production of 3.8 Million TPA of Limestone, 4.887 Million m<sup>3</sup> per Annum of waste and topsoil from mining area of 470.00 Ha located at Village- Sarasani, Tehsil- Nagaur, District: Nagaur, Rajasthan. The applied area forms a part of Survey of India topo-sheet no. 45E/15 (G43B15) (mine area) and 45/15 (G43B15), 45E/16, 451/3 (G43C3), 451/4 (G43C4) (study area). The lease is located at latitude and longitudes: Latitude: 27°15'7.0" N to 27°13'57.1" N Longitude: 73°53'14.5" E to 73°55'40.5" E. The lease falls under seismic zone-II.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "A", Project or Activity 1(a) as the Mining lease area is more than 100 Ha.

3. The project proponent applied online for grant of ToR on 30.09.2018 and submitted the Form I, Pre-feasibility Report, and copy of Letter of Intent. The proposal was considered in the EAC meeting held during 23<sup>rd</sup> - 24<sup>th</sup> October 2018. The EAC, after detailed deliberations recommended the proposal. The Term of Reference (ToR) was issued vide letter no. J-11015/125/2018-IA.II (M) dated 11.12.2018. Project proponent after conducting public hearing has applied for Environment Clearance on PARIVESH vide Proposal No. IA/RJ/MIN/80856/2018 on 22.01.2020 and submitted the final EIA/EMP report after incorporating Public Hearing proceedings. The proposal considered in EAC meetings held on 28,29 may & 1 June, 2020 and 22,23,24 July, 2020.

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4. The project proponent has submitted that Letter of Intent (LoI) was issued by the Joint Secretary, Government of Rajasthan in favour of M/s JSW Cement Ltd. vide letter no P.3(10) Mines/Group-2/2018, dated 13<sup>th</sup> April, 2018.
5. The project proponent has submitted that mining Plan and Progressive Mine Closure Plan has been approved by Indian Bureau of Mines (IBM), Ajmer (Rajasthan) vide letter no. 584 (4) (3) (1753)/2018 RCM-AJM dated September, 11, 2018.
6. The project proponent submitted that Mining will be done by mechanized opencast method by deploying heavy earth moving machines and with the help of drilling and blasting. The project proponent submitted that hydraulic excavators will be deployed for progressing benches and for handling of limestone ore/waste material. Drilling and control blasting techniques will be used for hard formations, the loading operations will be carried out by loaders/excavators and transportation of limestone from working face to crusher hopper (which will be installed in the other lease area of same lessee) will be carried out by dumpers & tippers. The project proponent submitted that the 52.07 million m<sup>3</sup> waste will be generated due to poor recovery up to conceptual stage which will be backfilled in the 164.92 Ha of excavated area & same will be rehabilitated by plantation. The project proponent submitted that 701420 m<sup>3</sup> of top soil generated up to conceptual stage which will be stacked separately and used for plantation/ Green Belt Development. Liquid effluents will not be generated in the open-cast mining operation.
7. The project proponent submitted that the ultimate working depth will be 270 m AMSL (30 m) and depth of ground water level near mining lease area in pre & post monsoon are found to be 55 to 61.5 mbgl & 52 to 58.5 mbgl respectively. The project proponent submitted that the total water requirement for the project will be 200 KLD (170 KLD for Dust suppression, 20 KLD for greenbelt, 5 KLD for drinking & sanitation, 5 KLD for mine workshop) which will be sourced from bore wells. Project proponent has submitted that they have applied to CGWB vide application no. 21-4/12867/RJ/MIN/2019 dated 30.01.2019 for obtaining NOC/ permission for ground water withdrawal. The project proponent has submitted that detailed Rain Water Harvesting Plan (RWHP) along with the year wise plan for reduction in consumption of ground water is incorporated in the final EIA/EMP report. The total capital cost for RWHP is Rs. 10 Lakh and Recurring cost is Rs. 1.0 Lakh per annum.
8. The project proponent has submitted a 14-year plantation plan to develop green belt & plantation around mine boundary, undisturbed area etc. Project proponent has reported that local & fruit bearing plant species will be planted in consultation with forest department. Project proponent submitted that the total Nos. 243592 saplings will be planted in total area of 243.42 ha (@1000 plants/Ha) which will include 9.70 ha along 7.5m barrier zone which will be planted in the first 7 years of operation of mines & in the remaining area of 233.72 ha [171 ha in Internal Dump area, 350.71 ha in quarry area and 46.87 ha in other area such as Excavation Area along ML Boundary, along Roads and Infrastructure, Embankment Area and in Township Located Outside the Lease etc.] plantation will be started from the 6<sup>th</sup> year to 14<sup>th</sup> year. The total cost of plantation earmarked by project proponent amounts to Rs. 8.73 Crores approximately. The plants and saplings suitable for the existing soil and site conditions will be considered. Preference will be given for fast growing local plant species, which can adapt to the



local climate. Indigenous & fruit bearing species will be planted by JSW in consultation with local forest department, will be *Albizia excels* (Ardu), *Azadirachta indica* (Neem), *Acacia nilotica* (Babool), *Capparis decidua* (Kair), *Tamarindus indica* (Imli), *Mangifera indica* (Mango), *Syzygium cumini* (Jamun), *Acacia catechu* (Khair), *Nerium indicum* (Kaner), *Acacia senegal* (Gum arabic tree), *Aegle marmelos* (Bel), *Delonix regia* (Gulmohar), *Bombax ceiba* (Semal), *Erythrina variegata* (Indian Coral tree), *Moringa oleifera* (Senjana), *Sesbania grandiflora* (Humming bird tree/Agati), *Grevillea robusta* (Silver Oak), *Morus alba* (Shahtut), *Aegle marmelos* (Bel), *Phyllanthus emblica* (Amla), *Commiphora wightii* (Gugal) etc:

9. The project proponent submitted that the total area of this mining project is 470.00 ha out of which 116.2742 ha is Govt. land, 344.7758 ha is Private land and 8.95 ha land is Grazing/ Pasture Land. Project proponent submitted that as per revenue record there is no forest land involved in the Mining Lease Area. Letter for the same has been obtained from DCF, Nagore vide its letter No. F()/Tak/DCF/2018-19/967 dated 27.02.2019. There is no Wildlife Sanctuary, National Park, Biosphere Reserves, Reserve Forest/Protected Forest and Migratory Routes for fauna exists within 10 km radius of mining lease area. Since there is no forest area within the mining lease so, scheduled tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 is not applicable. Further it was submitted that The Mine site neither fall under the Critically Polluted Area nor under the Aravali range. Letter regarding no involvement of Aravali ranges has been obtained from Department of Mines & Geology, Nagaur vide letter dated 18.03.2019.

10. The project proponent submitted that List of flora and fauna separately for Core and Buffer zone has been duly authenticated by DCF vide its letter No. F()/Tak/DCF/2018-19/966 dated 27.02.2019. Three Schedule-I species - Indian Peafowl (*Pavocristatus*), Chinkara (*Gazellabennettii*) and Monitor Lizard (*Varanus bengalensis*) are found in the study area. The cost of conservation is earmarked to be Rs. 60.09 lakh and period of implementation will be 10 years.

11. Being a Major Mineral there is no requirement of District Survey Report.

12. The project proponent has submitted that one season primary baseline data for ambient air quality, (as per CPCB quality Notification, 2009), water quality, noise level, soil and flora & fauna has been collected during Post Monsoon Season (October to December, 2018). Site-specific meteorological data has been recorded. The dominant wind direction is from North direction. Locations of the monitoring stations were selected keeping in view the pre- dominant downwind direction and location of the sensitive receptors and also that they represent whole of the study area. One location has been selected in downwind direction at 500m from the lease boundary. The AAQ parameters in the study area have been found well within prescribed norms due to absence of any major source of air pollution from any major industrial establishment, average population density. From the baseline study and discussions, it can be concluded that noise levels at most of the locations in the study area are well within the limits prescribed by the CPCB. Due to the proposed mining project, there may be impact on nearby habitations like Sarasani, Somna, Khetolao etc. Impact assessment and mitigation measures have been suggested for the same. No water body exists within the lease area and no waste water will be discharged outside lease boundary.

Therefore, no adverse impact on water quality is envisaged due to the proposed mining project. The analysis results of soil show that soil is neutral to slightly alkaline in nature, the pH value ranges from 7.92 to 9.20, the soil texture is sandy at the sampling locations. According to the survey, no endemic, endangered and rare species of flora recorded in threatened status in study area. The area is represented by fauna of Schedule- I, II, III, IV, V category according to (IWPA) Indian Wildlife Protection Act, 1972. The area has presence of Lizards, and Snakes. Among the Snakes the Russell's Viper, Rat Snake, Sand boa are presence. In Lizards- Monitor Lizard, Brahminy Skink, Spiny tailed lizard was observed. Bats presence was also noticed in buffer zone. Thus project proponent has submitted that there will be no significant pollution of air, water, soil and noise. Regular monitoring of all the components of environment will be done. Due to increased spending on social welfare measures by the company, there will be overall development of the near-by villagers.

13. The Project Proponent reported that Public Hearing for Proposed Mining Project (Lease area 470 ha) with production capacity 3.8 Million TPA located in village sarasani, Tehsil Nagaur, District Nagaur by M/s. JSW Cement Limited was held on 14.07.2019 at 11:00 am at Government Adarsh Senior Secondary School, VilllageSarasani, Tehsil- Nagaur District- Nagaur under the chairmanship of Shri Dinesh Kumar Yadav, District Collector Nagaur. The advertisement for public hearing was published on 10.06.2019 in newspapers – Times of India and Rajasthan Patrika. Project proponent has submitted that, during the public hearing, total of 11 objections / suggestions have been received regarding the project. The issues raised during public hearing included Impact on habitation, benefits for farmers, development of village, impact of mining on habitation, impact of blasting on habitations, gochar land, acquisition of land, employment, environment pollution. The proceedings are incorporated in the EIA/EMP report.

14. The project proponent has submitted that as per MoEF&CC's OM no. F. No. 22-65/2017-IA.II dated 01.05.2018, for the Green field projects, CER budget should be 2% or more of the total Project cost.

15. The project proponent reported that total Mining Lease Area is 470 ha out of which 116.2742 ha is Govt. Land and 344.7758 ha. is Private Land and 8.950 ha is Charagah / Grazing Land. As per khasra details there are 127 PAFs are involved in the lease area out of which, 69 PAFs are homestead outsees who will be displaced due to the mining activity. A detailed action plan report for R&R has been prepared by project proponent wherein project proponent has allocated a total of 12378 lakhs towards the implementation of R&R. Project proponent has reported that R&R is yet to start.

16. The Project Proponent submitted that the budget earmarked for Environmental Management Plan (EMP) shall be ₹ 100 Lakhs (Capital) & ₹ 30 Lakhs (recurring/annum). This will include 1) Air Pollution Control (Capital – Rs. 50 Lakhs & Recurring/annum – Rs. 8.1 Lakhs), 2) Pollution Monitoring (Capital – Rs. 5 Lakhs & Recurring/annum – Rs. 10 Lakhs), 3) Green Belt (Capital – Rs. 20 Lakhs & Recurring/annum – Rs. 9.9 Lakhs), 4) Garland drains / Catch drains / Siltation ponds (Capital – Rs. 10 Lakhs & Recurring/annum – Rs. 1.0 Lakhs) and 5) Rainwater Harvesting (Capital – Rs. 15 Lakhs & Recurring/annum – Rs. 1.0 Lakhs)

17. The project proponent has submitted that Occupational health impacts of the Project have been assessed and details have been incorporated along with details of pre-placement medical examination and periodical medical examination schedules. The project specific occupational health mitigation measures with medical facilities to be provided at mine site have been incorporated in the report. JSWCL will adopt the safety measures accordingly. Project proponent has allocated a total of Rs. 19 lakhs as recurring cost on Occupational Health and Safety which includes 1) Occupational Health Surveillance (Rs. 9 Lakhs / annum) wherein Dispensary with medical staff will be set up in plant premises and will be common for both plant & mines and 2) Personal Protective equipments (Rs. 10 Lakhs / annum) wherein Helmets, Safety Shoes, Gloves, ear plugs/ muffs, jackets, goggles etc will be provided.

18. The project proponent submitted that there are no Court Cases pending against the project and/or land in which the project is proposed to be set up.

19. The project proponent has submitted an undertaking in EIA Report dated 24.02.2020 that the data and information in this Perma are true to the best of his knowledge and belief. The Consultant has also given an undertaking stating that the ToRs prescribed by MoEF&CC have been complied as per data/details provided by project proponent & as per approved Scheme of Mining approved by IBM, Ajmer and the data submitted are factually correct.

20. The Proponent submitted that total project cost will be Rs. 166.45 Crore and 196 persons will be engaged for the Project.

21. The committee, after detailed deliberations based on the documents, presentation made before the committee and discussions with the project proponent and consultant during the presentation, recommended for grant of prior environmental clearance, for Mining of Limestone for production of 3.8 Million TPA of Limestone, 4.887 Million m<sup>3</sup> per Annum of waste and topsoil from mining area of 470.00 Ha located at Village- Sarasam, Tehsil- Nagaur, District: Nagaur, Rajasthan, for a period of two years from the date of execution of mining lease with specific conditions in addition to the standard conditions applicable to non-coal mining. The project proponent shall approach the Ministry with complete detailed exploration and revised mining plan, if any, for re-validation / extension of the validity of the environmental clearance within the two years from the date of execution of Mining Lease.

22. 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 after accepting the recommendation of EAC meeting held during July, 22, 23 & 24, 2020, hereby decided to accord the Environmental Clearance (EC) under the provisions thereof to the above mentioned proposal of M/s JSW Cement Limited for limestone Mine {Block 3B2, Applied ML Area- 470.00 ha} with limestone production capacity of 3.8 Million TPA, Waste and Topsoil: 4.887 Million M<sup>3</sup> per annum located near Village- Sarasani, Tehsil- Nagaur, District: Nagaur, Rajasthan for a period of two years from the date of execution of mining lease. The Committee also prescribed the following specific condition for this project:

## A. Specific Conditions

- i. The grazing land may be excluded from the ML area or no mining operations shall be undertaken in grazing land and adequate safety barriers shall be maintained between grazing and mining area throughout the mine life. Proper fencing shall be done surrounding the grazing land in East, North and West directions to prevent cattle from going inside the working area and free access for grazing.
- ii. The project proponent shall establish necessary facilities for measurement, treatment and monitoring. The project proponent shall be allowed to withdraw and/or intersect the groundwater table, only after permission from the CGWA.
- iii. The project proponent shall implement site specific conservation plan for Schedule-I species namely, Indian Peafowl (*Pavocristatus*), Chinkara (*Gazellabennettii*) and Monitor Lizard (*Varanusbengalensis*) in consultation with the State Forest Department with proposed budget of Rs. 250 Lakhs, as per the recommendation of the Chief Wildlife warden.
- iv. Plantation shall be carried out as per the mining plan both concurrent and closer phase reclamation, inter alia, including plantation all along the boundary (Safety zone-9.70 Ha) of the mining lease shall be completed in 2 years of commencement of mining operations with a saplings of native and broad leaved species of not less than 12 feet, record keeping, gap plantation and grassing as per the directions of the Hon'ble Supreme Court.
- v. The project proponent shall implement the commitments made on the issues raised in PH and activities proposed under CER, in a period of three years and record for the same shall be maintained and audited and reported to the Regional Office of the Ministry along with the compliance reports.
- vi. Transportation of limestone from mine site to crusher through internal road and then to proposed Cement Plant through Covered Conveyor Belt System (tentative distance of plant from mine is ~5 km) and for trading by tippers through public roads.
- vii. Total excavation shall not be exceeded 15.948 MTPA, inter alia, including Limestone Production Capacity 3.8 Million TPA, waste 12.03 MTPA and Topsoil 0.118 MTPA.
- viii. All the mitigation measures committed / envisaged in the EIA/EMP report and subsequent submission shall be implemented.
- ix. In pursuant to Ministry's O.M No 22-34/2018-IA.III dated 16.01.2020 to comply with the direction made by Hon'ble Supreme Court on 8.01.2020 in W.P. (Civil) No 114/2014 in the matter Common Cause vs Union of India, the mining lease holder shall after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to other mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

## **B. Standard conditions**

### **I. Statutory compliance**

- 1) The EC granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc. required to be obtained or standards / conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project.
- 2) The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.
- 3) The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India &Ors.
- 4) The Project Proponent shall follow the mitigation measures provided in MoEFCC's 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".
- 5) A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
- 6) State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
- 7) The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change ([www.parivesh.nic.in](http://www.parivesh.nic.in)). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.
- 8) The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

## II. Air quality monitoring and preservation

9) The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.

10) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEFCC/ Central Pollution Control Board.

## III. Water quality monitoring and preservation

11) In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then project proponent shall ensure that prior approval from CGWA and MoEFCC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.

12) Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

13) The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease including upstream and downstream. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEFCC. The monitoring of water courses/ bodies existing in lease



area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data 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, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

14) Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.

15) Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEFCC annually.

16) Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.

17) The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.

#### **IV. Noise and vibration monitoring and prevention**

18) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.

19) 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. project proponents 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 /night hours.

20) The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training,

awareness and information on safety and health aspects. The project proponent shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

#### V. Mining plan

21) The Project Proponent shall adhere to approved mining plan, inter alia, including, total excavation (quantum of mineral, waste, over burden, inter burden and top soil etc.); mining technology; lease area; scope of working ( method of mining, overburden & dump management, O.B& dump mining, mineral transportation mode, ultimate depth of mining, concurrent reclamation and reclamation at mine closure; land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life; etc.).

22) The shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. Project proponent shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEFCC and its concerned Regional Office.

#### VI. Land reclamation

23) The Overburden (O.B.), waste and topsoil generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB / waste dumps / topsoil dump like height, width and angle of slope shall be governed as per the approved Mining Plan and the guidelines/circulars issued by D.G.M.S. The topsoil shall be used for land reclamation and plantation.

24) The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.

25) Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.

26) Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period

31) The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.

#### **IX. Public hearing and human health issues**

32) Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.

#### **X. Corporate Environment Responsibility (CER)**

33) The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.

#### **XI. Miscellaneous**

34) The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.

35) 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.

36) The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEFCC & its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.

37) A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEFCC.

38) The concerned Regional Office of the MoEFCC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEFCC officer(s) by furnishing the requisite data / information / monitoring reports.

39) In pursuant to Ministry's O.M No 22-34/2018-IA.III dated 16.01.2020 to comply with the direction made by Hon'ble Supreme Court on 8.01.2020 in W.P. (Civil) No 114/2014 in the matter Common Cause vs Union of India, the mining lease holder shall after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to other mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

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

24. 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 attracts action under the provisions of Environment (Protection) Act, 1986.

25. 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 and any other Court of Law relating to the subject matter.

26. 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.

27. This issues with the approval of Competent Authority.

Yours faithfully,

  
(Sharath Kumar Pallerla)  
Director/Scientist 'F'

**Copy to:**

1. **The Secretary**, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi-110 001.
2. **The Secretary**, Department of Mines & Geology, Government of Rajasthan, Secretariat, Jaipur.
3. **The Secretary**, Department of Environment, Government of Rajasthan, Secretariat, Jaipur.

4. **The Secretary**, Department of Forests, Government of Rajasthan, Secretariat, Jaipur.
5. **The Chief Wildlife Warden**, Government of Rajasthan, Jaipur.
6. **The Dy. Director General of Forests**, Ministry of Environment, Forest and Climate Change, Regional Office (CZ), Kendriya Bhawan, 5<sup>th</sup> Floor, Sector "H", Aliganj, Lucknow – 226020
7. **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
8. **The Member Secretary**, Central Ground Water Authority, 18/11, Jam Nagar House, Man Singh Road, New Delhi-110011.
9. **The Chairman**, Rajasthan State Pollution Control Board, Jaipur, Rajasthan.
10. **The Controller General**, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
11. **The District Collector**, Nagaur, District, Government of Rajasthan.
12. **Guard File.**
13. **MoEF&CC Website.**

*Sharath Kumar Pallerla*  
21/8/2020

(Sharath Kumar Pallerla)  
Director/Scientist 'F'