

**F.No. J-11015/13/2019-IA.II (M)**  
Government of India  
Ministry of Environment, Forest and Climate Change  
Impact Assessment Division

\*\*\*

Indira Paryavaran Bhavan,  
Prithvi Wing, 2<sup>nd</sup> Floor, Aliganj,  
JorBagh Road, New Delhi-110 003

Dated: 26th July, 2021

To,

**M/s. Dalmia Cement (Bharat) Limited**  
11th & 12th Floor, Hansalaya Building,  
15, Barakhamba Road, Connaught Place,  
New Delhi -110001

**Subject: Environmental Clearance of M/s. Dalmia Cement (Bharat) Limited for Limestone Production - 4.0 Million TPA, Top Soil / Sub Soil - 1.25 Million TPA, Waste (OB/IB/Shale) - 1.00 Million TPA & Screen Rejects - 0.40 Million TPA (Total Excavation - 6.65 Million TPA) along with installation of Crusher -1200 TPH Capacity with Wobbler in the mine lease area of 575.830 ha at Villages: Bairiha, Patrahai & Janardanpur, Tehsil: Rampur Baghelan, District: Satna, Madhya Pradesh - Environmental Clearance (EC) regarding.**

Sir,

This has reference to proposal no. IA/MP/MIN/89876/2018 of M/s Dalmia Cement (Bharat) Limited for Limestone production of - 4.0 Million TPA, Top Soil / Sub Soil - 1.25 Million TPA, Waste (OB/IB/Shale) - 1.00 Million TPA & Screen Rejects - 0.40 Million TPA (Total Excavation - 6.65 Million TPA) along with installation of Crusher -1200 TPH Capacity with Wobbler in the mine lease area of 575.830ha at Villages: Bairiha, Patrahai & Janardanpur, Tehsil: Rampur Baghelan, District: Satna, Madhya Pradesh. The mine lease area located between Latitude: 24°34'0.3095" N to N 24°35'48.2047"N and Longitude: 81°02'42.3126" E to 81°05'32.0272" E. The mine lease area falls under the Survey of India Toposheet No 63 H/2, 63D/14, 63D/15, 63H/3 and in Seismic zone-II. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS.

2. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and 2(b) Mineral Beneficiation under Category "A" of the schedule of the EIA Notification, 2006 as the mining lease area is greater than 100 ha and appraised at Central level.

3. M/s Dalmia Cement (Bharat) Limited has made an online application vide proposal no. IA/MP/MIN/89876/2018 dated 13.03.2021 along with the Form-2 and EIA report after conducting the public hearing on 28.10.2020 under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposal is placed in EAC meeting held during 9<sup>th</sup>-15<sup>th</sup> June, 2021 wherein the EAC deliberated on the following information submitted by PP.

**Details submitted by Project proponent.**

4. The details of the Terms of References (TOR) are furnished as below:

Date of application	Proposal No	Consideration	Details	Date of accord
31.12.2018	IA/MP/MIN/89876/2018	January 22-23, 2019	Terms of Reference	12.02.2019



5. Details of Mine lease.

S.no	Grant of PI/mine lease/ Order	Date of the grant	Name of the Minerals	Period of Grant		Granted by	Mine lease area in Ha
				From	To		
1	Prospecting license Lr No F14-20/2008/12/1-66531	27.12.2012	Limestone	04.02.2013	03.02.2015	Govt. of Madhya Pradesh	724.541 ha.
2	Letter of Intent Lr No F 3-8/2014/12/1	18.01.2018	Limestone			Govt. of Madhya Pradesh	575.832 ha.
3	F-3-8/2014/12/1	28.08.2018	Limestone			Govt. of Madhya Pradesh	PP mentioned that inadvertently State government has mentioned mine lease area 575.832ha instead of 575.830ha. The PP applied for rectification of Mine lease in LOI the state government has rectified the mine lease area in LOI from 575.832 ha to 575.830ha.
4	Grant of mining lease Lr No AF 3- 8/2014/ 12/1	08.08.2019	Limestone	50 years from grant of the lease.		Government of Madhya Pradesh	575.830 ha.

6. Details of executed Mine leases.

S.no	Date of grant of Lease execution	Period of Grant		Details
		From	To	
1	Date of entering into original lease deed.	11.11.2019	10.11.2069	MP348642019A1257763 in between Government of Madhya Pradesh and M/s Dalmia Cement (Bharat) Limited registered on 11.11.2019

7. Land use and ownership details:

S.No	Particulars	Area
1	Private Land (ha.)	567.182
2	Government Land (ha.)	8.648
3	Revenue Land (ha.)	Nil
4	Forest land	Nil
5	Other Land (ha.)	Nil

*R*

6	Total	575.830
7	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	PP submitted that 13.84ha is acquired, 553.34 Land yet to be acquired (Ha) the same In Progress
8	Existence of habitation & involvement of R&R, if any	3 no. of villages and there are 699 Project Affected Families, in which, 654 PAFs having only land and 35 PAFs having land and houses both.
9	Elevation of the project site	288 m AMSL to 306.65 m AMSL
10	Water body exists within the project site as well as study area	Major water bodies like pond, nala has been excluded during grant of the ML Area. Part of canal falling/traversing the lease area is proposed to be diverted for which requisite permission has been obtained.
11	Existence of ESZ/ESA / national park / wildlife Sanctuary / biosphere Reserve / tiger reserve / elephant reserve etc. if any within the study area.	Nil

8. Details of Mine Plan.

S.no	Mining Plan along with the Conceptual Plan Approved By	Letter no	Dated of Approval	For a period	Approved Capacity (in Million TPA)
1	Indian Bureau of Mines	MP/Satna/Limestone/ MPLN/G-29/18-19 7044	06.12.2018	5 years (6.12.2018-05.12.2023)	4.0 MTPA of Limestone

9. The Project Proponent submitted that the mining activity will be carried out by open cast mechanized method with drilling and blasting. PP also submitted that bench height and width will be maintained 6.0m and 20-30m simultaneously. Mining is proposed maximum working depth of mining will be 23m in below the ground whereas the ground water table exists at an average depth of 12-15m bgl and 10-12 m bgl during pre-monsoon and during post-monsoon respectively, so mining depth will intersect the ground water table. The PP submitted that the total geological reserve is 133.66 Million Tonnes and Mineable Reserve is 40.47 Million Tonnes. PP submitted that the estimated life of mine is 14 years which is likely to extend after further drill exploration. The proposed height of the bench will be 6m and bench width will be ~20 to 30m and the ultimate pit slope shall be 45°. Excavated limestone will be transported to the crusher via dumpers. The capacity of crusher will be 1200 TPH. Material (ROM Limestone) will be unloaded in RCC Hopper of 100 /150 CuM with low level sensor. Crushed limestone will be transported by covered conveyor belt (~3.7 km length & 20 m width) to the interlinked cement plant. The conveyor belt corridor is free of habitation. Transportation will be done in 2 shifts. Plantation is also proposed all along the conveyor belt. Bag filters will be installed at transfer points. Regular maintenance and timely replacement of idlers will be done to minimize noise pollution. PP also submitted that the top soil shall be used for plantation and remaining will be stacked separately at earmarked area of about 9 ha. Proposed height of topsoil dump shall be about 20 m during plan period within ML. Waste (OB/IB/Shale) will be used for preparation of the ramp to crushing unit and platform for unloading the material in to hopper and recurring of dumpers etc. There is no proposal for stacking of the OB as it is proposed for simultaneous backfilling of mined out area. The backfilling will be mostly up to the ground level. Topsoil will be used for topping of the backfilled

R

area. At the conceptual stage there will be no dump. PP vide Lr dated 13.06.2021 submitted an undertaking that there is an existing excavated area of 1.0 ha within the Mine lease. The same is also mentioned in the approved Mining Plan. M/s. Dalmia Cement (Bharat) Limited has not commenced any mining operations in the said ML.

10. The Project Proponent submitted that the nearest villages are Janardanpur (adjacent in North), Patarahai (adjacent in East), Bairiha (adjacent in South), Merhi (~150m, West) and Karmau (~650 m in NW). Nearest highway is NH-75 (~6.5 km in South) and its by-pass road (~5.35 km in South).

11. The Project Proponent submitted that the total water requirement will be 90 KLD and for dust suppression/plantation 75 KLD for Domestic use 5 KLD, 10 KLD for other purpose). PP submitted that the water will be taken from existing water sources from Ground water and or mine pump. PP has submitted that an application regarding ground water extraction to CGWA vide letter no. 21-4/1074/MP/MIN/2020 dated 31.12.2020 and is under process.

12. The Project Proponent submitted that five minor/sub minor canals (Pathrahai Minor and minor sub canal in East part of ML, Karmau&Jhanjhar Minor Canal in western part of ML, Bariha Minor Canal in Central part of ML) are passing through the ML Area. Total length of canal/sub canal passing through the lease area is estimated as 6.16 km. Diversion of the same is proposed for which demand has been raised by concerned Authority (Irrigation Department), Govt. of Madhya Pradesh for issuance of NOC and accordingly Rs 12.144 crores has been paid by the Project Proponent. Further NOC has been issued by Department of Water Resources, Bhopal vide letter no. R-388/2014/Madhyam /31/174 dated 08.03.2017. PP also submitted that a seasonal nala namely Dilanala is excluded during grant of ML from the mining lease area which divided the mining lease in blocks and 50 m safety barrier will be left along the Nala.

13. The Project Proponent submitted revised greenbelt and plantation vide Lr dated 13.06.2021 that total area to be covered under greenbelt and plantation will be 95.92 ha in which greenbelt along the 7.5 m lease periphery will be covered in 40 ha and plantation on safety zone of nallah, road and habitation will be done on 55.92 ha area with 90% survival rate and will be completed within three years from the date of commencing of mining operations. Local and fruit bearing species like *Adina Cordifolia*, *AegleMarmelos*, *FicusBenghalensis*, *FicusReligiosa*, *HardwickiaBinata*, *MangiferaIndica*, *AzadirachtaIndica*, *Bauhinia Variegata*, *SyzygiumCumini*, *Cassia Fistula* and *Delonix Regia* etc. will also be selected & planted in consultation with Forest Department and as per CPCB guidelines. Sapling height will be 2 m. PP earmarked about Rs. 6 Crore for development of plantation/greenbelt over 95.92 Ha including cost for sapling, fertilizers, tree guard, tool stackers and maintenance etc and Rs 25 lakhs for nursery.

14. The Project Proponent reported that there is no National Parks, Biosphere Reserve, Wildlife Corridors, and Tiger/Elephant Reserves/ Critically Polluted area/Aravali located within the radius of 10km of the mine lease area. PP submitted that there is no forest land involved in the Mine lease area. PP reported that there are no Schedule-I species in support of this PP submitted vide letter no WL/Maa.chi/Mine-80/2161 dated 06.03.2021 duly authenticated by Chief Wildlife Warden & Principal Chief Conservator of Forest.

15. PP reported that the primary baseline data for specific micro-meteorology data, ambient air quality, waste quality, noise level, soil and flora & fauna has been collected during Post Monsoon Season. The Monitoring results of ambient air, surface water, soil, ambient noise and ground water for the month of October to December, 2018 have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples.

Period



AAQ parameters at 10 locations	<table border="1"> <thead> <tr> <th>Pollutant</th> <th>Min, <math>\mu\text{g}/\text{m}^3</math></th> <th>Max, <math>\mu\text{g}/\text{m}^3</math></th> <th>98 %ile, <math>\mu\text{g}/\text{m}^3</math></th> <th>Standard, <math>\mu\text{g}/\text{m}^3</math></th> </tr> </thead> <tbody> <tr> <td>PM2.5</td> <td>26.5</td> <td>42.2</td> <td>41.8</td> <td>60</td> </tr> <tr> <td>PM10</td> <td>54.2</td> <td>83.6</td> <td>83.0</td> <td>100</td> </tr> <tr> <td>SO2</td> <td>5.3</td> <td>13.6</td> <td>11.5</td> <td>80</td> </tr> <tr> <td>NOx</td> <td>10.4</td> <td>28.6</td> <td>28.2</td> <td>80</td> </tr> </tbody> </table>	Pollutant	Min, $\mu\text{g}/\text{m}^3$	Max, $\mu\text{g}/\text{m}^3$	98 %ile, $\mu\text{g}/\text{m}^3$	Standard, $\mu\text{g}/\text{m}^3$	PM2.5	26.5	42.2	41.8	60	PM10	54.2	83.6	83.0	100	SO2	5.3	13.6	11.5	80	NOx	10.4	28.6	28.2	80
Pollutant	Min, $\mu\text{g}/\text{m}^3$	Max, $\mu\text{g}/\text{m}^3$	98 %ile, $\mu\text{g}/\text{m}^3$	Standard, $\mu\text{g}/\text{m}^3$																						
PM2.5	26.5	42.2	41.8	60																						
PM10	54.2	83.6	83.0	100																						
SO2	5.3	13.6	11.5	80																						
NOx	10.4	28.6	28.2	80																						
AAQ modelling (Incremental GLC)	<table border="1"> <thead> <tr> <th>Pollutant</th> <th>Baseline Concentration, <math>\mu\text{g}/\text{m}^3</math></th> <th>Incremental Concentration, <math>\mu\text{g}/\text{m}^3</math></th> <th>Total GLC, <math>\mu\text{g}/\text{m}^3</math></th> <th>Standard</th> </tr> </thead> <tbody> <tr> <td>PM2.5</td> <td>32.6</td> <td>1.10</td> <td>33.70</td> <td>60</td> </tr> <tr> <td>PM10</td> <td>66.5</td> <td>3.39</td> <td>69.89</td> <td>100</td> </tr> <tr> <td>SO2</td> <td>7.81</td> <td>1.54</td> <td>9.35</td> <td>80</td> </tr> <tr> <td>NOx</td> <td>16.2</td> <td>5.35</td> <td>21.55</td> <td>80</td> </tr> </tbody> </table>	Pollutant	Baseline Concentration, $\mu\text{g}/\text{m}^3$	Incremental Concentration, $\mu\text{g}/\text{m}^3$	Total GLC, $\mu\text{g}/\text{m}^3$	Standard	PM2.5	32.6	1.10	33.70	60	PM10	66.5	3.39	69.89	100	SO2	7.81	1.54	9.35	80	NOx	16.2	5.35	21.55	80
Pollutant	Baseline Concentration, $\mu\text{g}/\text{m}^3$	Incremental Concentration, $\mu\text{g}/\text{m}^3$	Total GLC, $\mu\text{g}/\text{m}^3$	Standard																						
PM2.5	32.6	1.10	33.70	60																						
PM10	66.5	3.39	69.89	100																						
SO2	7.81	1.54	9.35	80																						
NOx	16.2	5.35	21.55	80																						
Noise level at 10 locations	<p>Day Time: 49.8 to 62.1 Leq dB (A)</p> <p>Night Time: 41.7 to 56.7 Leq dB (A)</p>																									
Ground water quality at 12 locations	<p>pH varied from 7.23 to 7.54, Total hardness varied from 212 to 456 mg/l, Total dissolved solids varied from 337 to 771 mg/l, Conductivity varied from 421 mg/l to 585 mg/l, The water samples contain, chloride from 17.37 to 42.19 mg/l, <math>\text{SO}_4</math> varied from 28.57 to 182.18 mg/l, Fluoride 0.19 to 0.83 mg/l, Ca from 61.47 to 123.63 mg/l.</p>																									
Surface water quality at 4 locations (Fresh assessment of surface water quality has been carried out on 23/12/2018 to 24/12/2018)	<p>pH varied from 7.32 to 7.63, Total hardness varied from 153.45 mg/l to 346.5 mg/l, Total dissolved solids varied from 219 mg/l to 496 mg/l, Fluoride as F varied from 0.17 mg/l to 0.76 mg/l, BOD varied from 1.3 mg/l to 3.5 mg/l and COD varied from 4.48 mg/l to 12.76 mg/l.</p>																									
Soil quality at 12 locations	<p>PH value ranged from 7.15 to 7.81 and the texture of the soil samples were Silt loam and sandy loam at all locations. The organic matter% ranged from 0.74% to 1.19%. The concentration of Nitrogen varied considerably from 111.75 kg/ha to 150.13 kg/ha and Phosphorous found in less to medium amount i.e. from 34.59 to 62.46 kg/ha, whereas the Potassium is found to be ranging from 189.7 to 281.8 kg/ha, which is from less to average in quantity.</p>																									
Traffic assessment study findings	<p>Nil</p>																									
Flora and fauna	<p>PP reported that there are no Schedule-I species in support of this PP submitted vide letter no WL/Maa.chi/Mine-80/2161 dated 06.03.2021 duly authenticated by Chief Wildlife Warden &amp; Principal Chief Conservator of Forest.</p>																									

Details of Advertisement given	26.09.2020
Date of Public Consultation	28.10.2020
Venue	Government High School Jamuna, Village Jamuna, Tehsil Rampur Baghelan, District Satna, Madhya Pradesh
Presiding Officer	SmtVimlesh Singh, Additional Collector, Satna and Dr. A.K. Shrivastav, Regional Officer, Regional Office (MPPCB), Satna (Madhya Pradesh)
Major Issues Raised	land compensation, employment generation, Socio-economic development of the area and pollution control
No of People Attended	153

17. Public hearing action plan as per MoEF&CC O.M. dated 30/09/2020 PP vide Lr dated 13.06.2021 submitted the revised EMP cost for Public hearing concerns as Rs. 6.0 Crore.

18. The Project Proponent submitted that the total ML Area is 575.830 ha falls in revenue land of 3 Villages (Bairiha, Patarhai & Janardanpur). Out of total mine lease area; 8.648 ha is Government land and 567.182 ha is a private land. There are 699 Project Affected Families, in which, 654 PAFs having only land and 35 PAFs having land and houses both. Land acquisition will be through mutual agreement with the land holders falling in the mining lease area at negotiated rates and terms and conditions. PP vide Lr dated 13.06.2021 submitted that the value of land in village is taken from market valuation guidelines 2019 - 2020 issued by Registration and stamps department Govt. of Madhya Pradesh. PP also revised the budget for R&R Action plan as Rs. 237.601 Crore.

19. The Project Proponent submitted the affidavit dated 01.04.2021 that the company will comply with all the statutory requirement & judgment of Hon'ble Supreme Court dated 2<sup>nd</sup> August 2017 in writ Petition (civil) No. 114 of 2014 in the matter of common cause versus Union of India &Ors.

20. The Project Proponent submitted that there is no any litigation pending against the project and/or land in which the project is proposed to be set up. In addition to this PP submitted an undertaking dated 10.03.2021 that all the data and information given in the application, enclosures, and other documents are true. The Consultant submitted the NABET Accreditation Certificate NABET/EIA/2023/RA 0186 which was valid up to 07.02.2023. The Project Proponent submitted an undertaking dated 10.03.2021 that DCBL owns the contents (data & information) of the EIA report prepared and submitted by J.M. EnviroNet Pvt. Limited. Further, it is to state that, instructions as per MoEF&CC O.M. No. J-11013/41/2006-IA. II (I) dated 04.08.2009 has been followed during the preparation of this EIA/EMP Report. The Consultant submitted an undertaking dated 11.03.2021 to the effect that the ToRs prescribed by MoEF&CC, New Delhi vide Letter No. J-11015/13/2019-IA.II (M) dated 12.02.2019 have been complied as per data/details provided by Project Proponent & as per approved Mining Plan approved by IBM and the data submitted are factually correct. The Consultant also given declaration that the Consultant Organization shall be fully responsible for any misleading information mentioned in this statement.

21. The Project Proponent vide Letter dated 13.06.2021 submitted the revised project cost as Rs 304.25 Crores and the EMP cost for environmental protection & management proposed as Rs. 8.16 Crores. The employment generation from the proposed project is 71 Nos.

22. The proposal for Environmental Clearance was considered in the 31<sup>st</sup> EAC meeting held during 9<sup>th</sup> - 15<sup>th</sup> June, 2021. Based on the documents submitted and presentation made by the Project Proponent and the Consultant, the Committee **recommended** the proposal for grant of Environmental Clearance of M/s. Dalmia Cement (Bharat) Limited for proposed Limestone Production Capacity - 4.0 Million TPA, Top Soil / Sub Soil - 1.25 Million TPA, Waste (OB/IB/Shale) - 1.00 Million TPA & Screen Rejects - 0.40 Million TPA (Total Excavation - 6.65 Million TPA) along with Installation of Crusher - 1200 TPH Capacity with Wobbler in the mine lease area of 575.830 ha at Villages: Bairiha, Patrahai & Janardanpur, Tehsil: Rampur Baghelan, District: Satna, Madhya Pradesh with the specific conditions in addition to the standard conditions applicable for non- coal mining projects.

23. 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 above mentioned Environmental Clearance as recommended by EAC during its 31<sup>st</sup> EAC meeting held during 9<sup>th</sup> - 15<sup>th</sup> June, 2021 for proposed Limestone Production Capacity - 4.0 Million TPA, Top Soil / Sub Soil - 1.25 Million TPA, Waste (OB/IB/Shale) - 1.00 Million TPA & Screen Rejects - 0.40 Million TPA (Total Excavation - 6.65 Million TPA) along with Installation of Crusher -1200 TPH Capacity with Wobbler in the mine lease area of 575.830 ha at Villages: Bairiha, Patrahai & Janardanpur, Tehsil: Rampur Baghelan, District: Satna, Madhya Pradesh subject to compliance of the terms & conditions and the environmental safeguards mentioned below:-

#### SPECIFIC CONDITIONS

- 1) The budget of Rs 6.0 Crores to address the concerns raised by the public including in the public hearing to be completed within 3 years from the date of start of mining operations.
- 2) The Project Proponent shall undertake the plantation over 95.92 ha in peripheral zone and ensure that the plantation in peripheral zone and plantation along safety zone of nallah, road and habitation should be completed within 3 years from the date of commencement of mining operations with at least 90% survival rate. Casualties of the previous year should be replaced other than the saplings proposed to be planted every year.
- 3) The Project Proponent shall ensure that the air pollution control equipment like bag filter shall be installed at crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. The PP shall also undertake plantation all along the conveyor belt.
- 4) The Project Proponent shall install conveyor belt from mines to cement plant and transportation is only through conveyor belt.
- 5) The Project Proponent shall implement the Rehabilitation of project affected families (PAFs) and payment of compensation to PAFs as per the policy and guidelines of the Central/State Government, as provided under the law.
- 6) The Project Proponent should undertake regular monitoring of ground water level and surface water quality and take preventive measures for protection of water bodies within the lease area as well as nearby the mines.
- 7) The Project Proponent shall conduct the detailed hydrogeological study and obtain the NOC from CGWA before intersection of ground water table. The mining operations shall be restricted to above ground water table and it should not intersect the ground water table till obtain the NOC from the CGWA.
- 8) The Project Proponent should develop community infrastructure including COVID health Centre at Village panchayats Janardanpur, Jamuna & Bairiha, providing Oxygen concentrators, beds, PPE Kits, Covid Care, support in vaccination, Awareness for COVID etc. with the proposed budgetary provision of Rs.150 lakhs as mentioned in letter no nil dated 13.06.2021.
- 9) The Project Proponent shall also organize employment-based apprenticeship/ internship training program every year with appropriate stipend for the youth and other programs to enhance the skill of the local people.
- 10) The Project Proponent should obtain permission for withdrawal of ground water.
- 11) The topsoil, 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.



- 12) A seasonal nala namely Dilanala is excluded during grant of ML from the mining lease area which divided the mining lease in blocks and 50 m safety barrier along the nala will be left along the Nala and thick plantation shall be developed as a safety barrier.
- 13) Regular surveillance on Silicosis shall be carried through regular occupational health checkup of 1/3 of the persons every year.

## **STANDARD CONDITIONS**

### **I. Statutory compliance**

- 14) This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
- 15) 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.
- 16) 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.
- 17) 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".
- 18) 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.
- 19) 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.
- 20) 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.
- 21) 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. PP needs to apply for 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**

- 22) 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/PC/II, 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.





- 23) 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

- 24) 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 PP 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.
- 25) 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.
- 26) 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.
- 27) 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.
- 28) 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.



- 29) 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.
- 30) 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**

- 31) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
- 32) 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 /night hours.
- 33) 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 PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

#### **V. Mining plan**

- 34) 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.).
- 35) The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life 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. PP 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**

- 36) 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.



- 37) 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.
- 38) 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.
- 39) 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 thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.

#### **VII. Transportation**

- 40) No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers. [If applicable in case of road transport].
- 41) The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

#### **VIII. Green Belt**

- 42) The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt



shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.

- 43) The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.
- 44) 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**

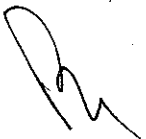
- 45) Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids 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)**

- 46) The Project Proponent shall submit the time- bound action plan to the concerned regional office of the Ministry within 6 months from the date of issuance of environmental clearance for undertaking the activities committed during public consultation by the project proponent and as discussed by the EAC, in terms of the provisions of the MoEF&CC Office Memorandum No.22-65/2017-IA.III dated 30 September, 2020. The action plan shall be implemented within three years of commencement of the project.

#### **XI. Miscellaneous**

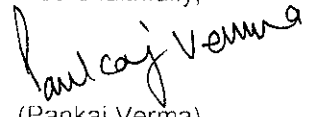
- 47) The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.
- 48) The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- 49) 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.
- 50) 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.

- 51) 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.
  - 52) 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 regrassing 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.
  - 53) The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
  - 54) Concealing factual data failure to comply with any or submission of false/ fabricated data and of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
24. 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.
25. 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.
26. This issues with the approval of Competent Authority.

Yours faithfully,



(Pankaj Verma)

Scientist 'E'

Email- [pankaj.verma@nic.in](mailto:pankaj.verma@nic.in)

Tel./Fax- 011-24695264

**Copy to:**

- 1). **The Secretary**, Ministry of Mines, Government of India, Shastri Bhavan, New Delhi.
- 2). **The Secretary**, Department of Mines & Geology, Government of Madhya Pradesh, Secretariat, Bhopal.
- 3). **The Secretary**, Department of Environment, Government of Madhya Pradesh, Secretariat, Bhopal.
- 4). **The Secretary**, Department of Forests, Government of Madhya Pradesh, Secretariat, Bhopal.
- 5). **The Chief Wildlife Warden**, Government of Madhya Pradesh, Van Bhavan, 1st Floor, Tulsi Nagar, Bhopal - 462 003.
- 6). **The Deputy Director General of Forests (C)**, Ministry of Env., Forest and Climate Change, Integrated Regional Office, E-5, Kendriya Paryavaran Bhawan, E-5 Arera Colony, Link Road-3, Ravishankar Nagar, Bhopal – 462016.
- 7). **The Member Secretary**, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office complex, East Arjun Nagar, New Delhi-110032.
- 8). **The Member Secretary**, Central Ground Water Authority, 18/11, Jam Nagar House, Man Singh Road, New Delhi-110011.

- 9). **The Member Secretary**, Madhya Pradesh State Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal – 462016.
- 10). **The Controller General**, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
- 11). **The District Collector**, District Satna, Madhya Pradesh.
- 12). **Guard File**.
- 13). **Parivesh Portal**.



(PankajVerma)  
Scientist 'E'