

F.No. J-11015/58/2017-IA.II (M)
Government of India
Ministry of Environment, Forest and Climate Change
Impact Assessment Division

Indira Paryavaran Bhavan,
Prithvi Wing, 2nd Floor, Aliganj,
Jor Bagh 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: : Proposal for Environmental Clearance of M/s. Dalmia Cement (Bharat) Limited for Proposed Pagara - Jhiriya Limestone Mine (ML Area: 395.965 ha including Mining Area 185.57 ha, Non-Mining Area 208.395 ha and area for installation of 500 TPH Capacity of Crusher 2 ha) with Total Excavation of 2.41 Million TPA [Limestone: 1.5 MTPA, Soil: 0.56 MTPA and OB: 0.35 MTPA] located near Villages: Pagra, Jhiriya Kothar, Jhiriya Bajpaien & Jhiriya Koparihan, Tehsil: Amarpatan, District: Satna, Madhya Pradesh – (EC) regarding.

Sir,

This has reference to proposal no: IA/MP/MIN/64735/2017 of M/s. Dalmia Cement (Bharat) Limited for grant of Environmental Clearance for Proposed Pagara-Jhiriya Limestone Mine (ML Area: 395.965 ha including Mining Area 185.57 ha, Non-Mining Area 208.395 ha and area for installation of 500 TPH Capacity of Crusher 2 ha) with Total Excavation of 2.41 Million TPA [Limestone: 1.5 MTPA, Soil: 0.56 MTPA and OB: 0.35 MTPA] located near Villages: Pagra, Jhiriya Kothar, Jhiriya Bajpaien & Jhiriya Koparihan, Tehsil: Amarpatan, District: Satna, Madhya Pradesh. The mine lease area falls under the Survey of India Toposheet No G44V3, G44V2, G44V3, G44V6 & G44V7 and bounded by Latitude 24°26'41.5" N to 24°28'18.3" N and Longitude 81°09'42.6" E to 81°12'27.6" E with an elevation of 319 m AMSL to 328 m AMSL and falls 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. M/s. Dalmia Cement (Bharat) Limited has made an online application vide proposal no IA/MP/MIN/64735/2017 dated 12.03.2021 and submitted the Form 2 and



M/s. Dalmia Cement (Bharat) Limited

Page 1 of 20

EIA report after conducting the public hearing on 29.10.2020 under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals 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. Thereafter, Ministry sought EDS on 31.03.2021 and the PP submitted the information on 15.04.2021. Then, the Ministry again examined the proposal and sought EDS on 31.05.2021 and the PP submitted the information on 04.06.2021. The proposal was considered in the 31st EAC meeting held during 9th - 15th June, 2021. Wherein PP submitted the following:

Details submitted by the PP.

3. The details of the ToR are furnished as below:

Date of application	Proposal No	Consideration	Details	Date of accord
16.05.2017	IA/MP/MIN/6 4735/ 2017	28 th June, 2017, 29 th August, 2017, 24 th October, 2017, 24 th April, 2018	Terms of Reference	16.05.2018

4. Details of Mine lease.

S.no	Grant of Pl/mine lease/ Order	Date of the grant	Name of the Minerals	Period of Grant		Granted by	Minc lease area in Ha
				From	To		
1	Prospecting license vide Lr F-2-74/09/12/1	22.05.2010	Limestone	08.06.2010	07.06.2012	State Govt. Madhya Pradesh	735.296 ha
2	Mining lease vide F-3-8/2013/12-1	20.03.2015	Limestone	50 years		State Govt. Madhya Pradesh	395.965 ha

5. 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.	06.11.2015	05.11.2065	N 867758, F. No 154/27/15 dated 27.07.2015 between M/s. Dalmia Cement (Bharat) Limited and Government of Madhya Pradesh

6. Land use details:

S No	Particulars	Details
1	Total land	395.965 ha

2	Involvement of Forest land if any	Nil
3	Agriculture land exists within the project site	305.860 ha
4	Gazing land exists within the project site	Nil
5	Built-up area	14.808 ha
6	Plantation, Open land, Quarry	75.297 ha
7	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Under Process to be purchased
8	Existence of habitation & involvement of R&R, if any	4 no. of villages and there are 387 Project Affected Families (whose land to be purchased) and 11 nos of Houses.
9	Elevation of the project site	319 m AMSL to 328 m AMSL
11	Water body exists within the project site as well as study area	ML was granted excluding the water bodies along with statutory barriers. Minor seasonal rivulets exist and these drained into Bihar River. Seasonal water courses initiate from the NW of the lease area (non mining zone) which ultimately join Lilji Nadi towards ENE. There is part of a pond In SW portion of the mining lease.
12	Existence of ESZ/ESA / national park / wildlife Sanctuary / biosphere Reserve / tiger reserve / elephant reserve etc. if any within the study area	Nil

7. Details of Mine Plan

S.no	Mining Plan along with the Conceptual Plan Approved By	Letter no	Dated of Approval	For a period of		Details
				From	To	
1	Indian Bureau of Mines	MP/Satna/Limestone/ MPLN/G-03/14-15/ 5208	29.09.2014	5 years		
2	Indian Bureau of Mines	MP/Satna/Limestone/ Mod-28/18-19	30.11.2018	2018-2019	2019-2020	Based on the directions of EAC/MoEF&CC Modified Mining Plan along with PMCP prepared for the balance period.
3	Indian	MP/Satna/Limestone/	23.01.2020	2020-	2024-	1.5 MTPA

8. The Project Proponent submitted that the mining activity will be carried out by open cast mechanized method with drilling and blasting. Mining is proposed to a maximum depth of 48m in below the ground whereas the ground water table exists at an average depth of 22m bgl during pre-monsoon and 20m during post-monsoon, so mining depth will intersect the ground water table. PP did not obtain the permission for intersection of ground water table. The PP submitted that the total geological reserve is 81.75 Million Tonnes and Mineable Reserve is 36.46 Million Tonnes.

9. PP reported that the life of the mine will be ~ 27 years. Bench height and bench width will be maintained at 2m - 6m and 15m respectively. Mining will be carried out in 6 pit/blocks (Pit/Block no. 1, 3, 4, 5, 6 & 7) having total area of 185.57 ha. In addition to this a Crusher of 500 TPH and other infrastructures will be installed over an allowed area of about 2 ha area. The total area used for mining and allied infrastructure including crushing will be 187.57 ha and remaining area of 208.395 ha will be treated as no mining area and only green belt development, afforestation and other protective activities will be carried out in this area. The Ministry granted Terms of Reference for setting up crusher of 1200 TPH but now the PP proposed to setting up crusher of 500 TPH capacity only.

10. PP submitted that 2.5 Ha area is existing quarry and submitted the letter no 882/खनिज/2018 dated 14.03.2018 issued by Mining Office, Collector office Satna wherein it has mentioned that as per official record a case has been filed on 14.02.2017 against 3rd party Shri Sanjay Singh S/o Shri Lallu Singh, village Jhinna for said old illegal mining. No other mining activity has been carried out after filling the case. The Sarpanch of Jahria-Koprihan and Pagra villages have confirmed that no mining activity has been initiated by M/s Dalmia Cement (Bharat) Ltd (DCBL) in the lease area. PP also submitted that at conceptual stage, Block 1, 4 and 5 will be completely backfilled and reclaimed. The block 3 and 6 will be partially backfilled and partially converted into water reservoir. The block 7 will be competently converted into water reservoir. The waste material to be generated during mining operation during the plan period will be dumped in the North Eastern part of the intended mining lease area near the western boundary of current working pit. The crushed limestone is proposed to transport by road in 2 shift basis to the proposed cement plant to be located at distance of about 25.7 km away (road distance), near Jamuna village.

11. The Project Proponent submitted that the part of Villages i.e. Pagra, Jhiriya Kothar, Jhiriya Bajpaien & Jhiriya Koparihan falls within the lease area. Nearest highway is NH-30 (Earlier NH-7) (~ 2.0 km, NNW).

12. The Project Proponent submitted that the total water requirement for the proposed mining project will be about 75 KLD of which 25KLD for Dust Suppression, 35 KLD for Plantation and Greenbelt Development, 10 KLD for workshop and 5KLD for drinking water which will be sourced from ground water after obtaining necessary permission from the competent authority and/or mine sump (as & when developed). Application has been submitted for abstraction as well as for dewatering of ground water during mining vide no 21-4/1071/MP/MIN/2020 dated 24.12.2020 and approval is under process.

13. The Project Proponent submitted that during the plan period, greenbelt will be developed in 7.5m safety zone along ML boundary over an area 12.62 ha. From the 6th year onwards about 18.945 ha area will be covered under greenbelt and safety zone. Afforestation on backfilled area will be developed phase wise. Till the end of life of mine, total area under Green belt/Plantation will be 143.565 ha (110 ha on backfilled area, 2.0 ha on infrastructure and 31.565 ha area around 7.5 meter ML periphery & safety zone). The trees will be planted @ 2500 saplings per ha and about 358912 trees will be planted on 143.565 ha area. Indigenous & fruit bearing species will be planted by DCBL in consultation with local forest department. Some of the selected species comprise *Silver Oak, Tree/Agati, Indian Coral tree, Neem, Palash, Semal/ Kapok, Amaltas, Senjana, Mango, Bel, Gulmohar, Ashok, Site Ashok, Karanj, Teak/Sagwan, Saja, Guava, Krishna Siris, Jamun, Sitaphal, Chiku, Mulberry/ Shahtut, Lemon, Kaner, Night blooming Jasmine* etc. The Project Proponent earmarked about Rs. 4.30 Crores for development of greenbelt & plantation till the end of life of mine @ Rs 120/sapling (including plantation and maintenance cost). About Rs 15 Lakhs earmarked 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 V. Pra./Ma. Chi/Mine-81/2159, Bhopal, dated 06.03.2021 duly authenticated by Chief Wildlife Warden & Principal Chief Conservator of Forest. PP also submitted that PCCF, Madhya Pradesh vide Lr.व.प्रा./मा.चि/माइन-81/3928 dated 10.06.2021 confirmed that the Maharaja Martand Singh Judeo Dev White Tiger Safari and Zoo is at approx 4.5 Km from the proposed mine and has issued NOC regarding the operation of mine subject to condition that PP should undertake controlled blasting, greenbelt plantation and water sprinkling on the roads.

15. 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 8 locations	<table border="1"> <thead> <tr> <th>Pollutant</th> <th>Min, $\mu\text{g}/\text{m}^3$</th> <th>Max, $\mu\text{g}/\text{m}^3$</th> <th>98 %ile , $\mu\text{g}/\text{m}^3$</th> <th>Standard, $\mu\text{g}/\text{m}^3$</th> </tr> </thead> <tbody> <tr> <td>PM2.5</td> <td>20.6</td> <td>55.7</td> <td>54.9</td> <td>60</td> </tr> <tr> <td>PM10</td> <td>47.4</td> <td>89.8</td> <td>88.9</td> <td>100</td> </tr> <tr> <td>SO2</td> <td>5.6</td> <td>15.4</td> <td>15.2</td> <td>80</td> </tr> <tr> <td>NOx</td> <td>9.8</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	20.6	55.7	54.9	60	PM10	47.4	89.8	88.9	100	SO2	5.6	15.4	15.2	80	NOx	9.8	28.6	28.2	80
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Noise level at 8 locations	Day Time: 51.2 to 54.7 Leq dB (A) Night Time: 42.1 to 44.6 Leq dB (A)																									
Ground water quality at 7 locations	pH varied from 7.05 to 7.21, total hardness varied from 361 to 465 mg/l, alkalinity 265.53 to 413.73 mg/l & total dissolved solids varied from 525 to 692 mg/l, chloride from 12.50 to 54.21 mg/l, SO4 varied from 88.98 to 212.24 mg/l, Nitrate 0.23 to 3.48 mg/l, Ca from 95.23 to 143.21 mg/l, Mg varied from 14.73 to 42.10 mg/l. The results indicate that groundwater from all the samples, were observed to be within the permissible limits and comply with the drinking water standard (IS: 10500-2012).																									
Surface water quality at 2 locations (Fresh assessment of surface water quality has been carried out on 20/11/2018)	pH of collected water samples varied from 7.22 to 7.35, Total hardness (87.54 to 128.70 mg/l), Total dissolved solids (132 to 178 mg/l), Alkalinity (68.54 to 135.85mg/l) and conductivity (308 to 341 $\mu\text{S}/\text{cm}$) were found to be within standards. The COD and BOD were found within the range (8.0 to 16.40 mg/l) and (2.20 to 4.40 mg/l) respectively. The nutrients were also found viz. sulphate (5.98 to 13.20 mg/l), nitrate (0.10 to 2.69 mg/l), calcium (23.21 to 29.80mg/l), magnesium (7.20 to 13.23 mg/l).																									
Soil quality at 7 locations	The soil samples exhibits brown and yellowish brown which indicates good fertility and presence of organic matter in the soil samples. The colour and turbidity were of permissible range and odour was found agreeable at all locations. pH value shows that soil is neutral to slightly alkaline in nature as pH value varied from 7.10 to 7.65 and soil textures of the soil samples were Silt loam.																									
Traffic assessment study findings	Traffic survey has been conducted on the NH-75 which is at the ~ 4.5 km from the proposed project site in South direction. Total numbers of vehicles per hour under the six categories were determined. About 5,000 Tonnes of Limestone after mining will be transported to the cement plant of the lessee at a distance of ~25.7 km to proposed cement plant through 25 tonne																									

Flora and fauna	<p>capacity tippers. It is seen that percentage of utilization of road will increase from 21% to 38%. V/C ration for the existing traffic scenario is observed to be 0.2 which falls under the LOS category "B having a performance of Very Good" for MH-75 and V/C ratio after the increased traffic volume due to the proposed project is found 0.38 which is also categorized under "B having performance of Very Good".</p> <p>PP reported that there are no Schedule-I species in support of this PP submitted vide letter no V. Pra./Ma. Chi/Mine-81/2159, Bhopal, dated 06.03.2021 duly authenticated by Chief Wildlife Warden & Principal Chief Conservator of Forest.</p>
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16. Public Hearing:

Details of Advertisement given	26.09.2020 in Dainik Jagran Samachar, Dainik Alok, Raj Express Samachar, Nav Swadesh Samachar, Satna
Date of Public Consultation	29.10.2020
Venue	Mine site, Jhiriya Bajpaien, Tehsil: Amarpatan, District: Satna
Presiding Officer	Smt Vimlesh Singh, Additional Collector, Satna and Dr. A.K. Shrivastav: Regional Officer, Regional Office (MPPCB), Satna (Madhya Pradesh).
Major Issues Raised	Employment, Control of Pollution, Land Compensation, Impact of pollution on surrounding crops, Improvement in education & health and basic facilities etc
No of People Attended	313

17. Public hearing action plan as per MoEF&CC O.M. dated 30/09/2020

Sl.no	Activities	Yr1	Yr2	Yr3	Total (Rs. In Lakh)
i	Water Conservation	5	5	0	10
	Rejuvenation / deepening of existing ponds (one in each village) in Pagra, Jhiriya Kothar, Jhiriya Bajpaien & Jhiriya Koparihan				
	Construction of Hand pump (one in each village) in Pagra, Jhiriya Kothar, Jhiriya Bajpaien & Jhiriya Koparihan	10	5	0	15
	Repair and maintenance and construction of existing water structures in village Pagra, Jhiriya Kothar, Jhiriya Bajpaien & Jhiriya Koparihan				
ii	Livelihood	45	25	25	95
	Setting up of skill training center under the banner of Dalmia Institute of Knowledge and Skill Harnessing (DIKSHa) for training of unemployed youth common for plant and captive				

	mines proposed in the area.				
	<ul style="list-style-type: none"> • No. of Training center – 1 • Place of training Centre – Pagra Jhiria • Trades: General Duty Assistant, Retail Sales & Assistant Electrician, Computer Operators, HEMM Driver etc. • Duration of courses: 3 months • Affiliation: NSDC / MP Skill Mission • Capacity of the Centre: 270 				
iii	Social Infrastructure	5	5	0	10
	Installation of 20 nos of Solar lights in common places of villages Installation of Solar plates in Schools for Power back-up				
	Refurbishment of Govt. elementary / senior secondary schools like boundary walls, painting, drinking water, sanitation, sports equipments etc. in Jhiriya Bajpein	10	5	0	15
	Setting up of computer labs for imparting computer literacy programs for school children and Digital Classroom with Modern teaching aids.	10	10	0	20
	Upgradation of medical equipments in existing health sub centers, PHC like extra beds, x – ray machines, ECG machines etc. in Jhiriya Bajpein.	7	7	1	15
	Renovation / construction of Community Centers	10	0	0	10
	Improvising facilities in mini zoo by providing 2 nos of battery operated vehicles (White Tiger Safari) at Mukundpur	5	5	0	10
	Total				200

18. The Project Proponent submitted that the total ML Area is 395.965 ha, out of which 3.884 ha is Govt. Land & 392.081 ha is Private Agriculture Land. ML Area falls in 4 revenue villages i.e. Pagra, Jhiriya Kothar, Jhiriya Baipaien, Jhiriya Koparihan. Looking into the proximity to habitation, EAC recommended mining only in six blocks out of 11 blocks (Block no 1, 3, 4, 5, 6 & 7) having total area of 185.57 ha and 2 ha for crusher, comes as 187.57 ha. Remaining 208.395 ha area is as non-mining area (2.47 ha area: Undisturbed existing road, 174.360 ha area: undisturbed land will be treated as no mining area & 31.565 ha area: Green belt development along the 7.5m periphery of mining lease & safety zone). Therefore, it is proposed to purchase 187.57 ha for mining & allied purpose & 31.565ha for greenbelt/plantation development. Thus, total area to be purchased is 219.135 ha. Land will be purchased in transparent manner at mutually agreeable rates. As per khasra details 703 families involved in the lease area out of which 387 are project affected families (whose land to be purchased) and 11 nos of houses falling in area recommended by EAC. There is no SC family & ST family to be displaced due to mining activities. Estimated Budget for the Resettlement & Rehabilitation is Rs. 62.457 crore.

19. 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.

20. The Project proponent submitted an undertaking for compliance of Common Cause order and other statutory requirements by the way of an affidavit on Rs 100 (Non judicial Stamp paper) bearing certificate number IN-DL 68203292132480T dated 01.04.2021. 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.

21. 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-11015/58/2017-IA.II (M) dated 16.05.2018 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.

22. The Project Proponent submitted that the total capital cost of the project is Rs. 112 Crore and the capital cost for environmental protection measures is proposed as Rs. 3.44 Crore. The annual recurring cost towards the environmental protection measures is proposed as Rs. 0.64 Crore. The employment generation from the proposed project is 69 Nos.

23. The proposal for Environmental Clearance was considered in the 31st EAC meeting held during 9th - 15th 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 Pagara-Jhiriya Limestone Mine (ML Area: 395.965 ha including Mining Area 185.57 ha, Non-Mining Area 208.395 ha and area for installation of 500 TPH Capacity of Crusher 2 ha) with Total Excavation of 2.41 Million TPA [Limestone: 1.5 MTPA, Soil: 0.56 MTPA and OB: 0.35 MTPA] located near Villages: Pagra, Jhiriya Kothar, Jhiriya Bajpaien & Jhiriya Koparihan, Tehsil: Amarpatan, District: Satna, Madhya Pradesh with the specific conditions in addition to the standard conditions applicable for non- coal mining projects.

24. 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 31st EAC meeting held during 9th - 15th June, 2021 for grant of Environmental Clearance of M/s. Dalmia Cement (Bharat) Limited for Proposed Pagara-Jhiriya Limestone Mine (ML Area: 395.965 ha including Mining Area 185.57 ha, Non-Mining Area 208.395 ha and area for installation of 500 TPH Capacity of Crusher 2 ha) with Total Excavation of 2.41 Million TPA [Limestone: 1.5 MTPA, Soil: 0.56 MTPA and OB: 0.35 MTPA] located near Villages: Pagra, Jhiriya Kothar, Jhiriya Bajpaien & Jhiriya Koparihan, Tehsil: Amarpatan, District: Satna, Madhya Pradesh subject to compliance of the terms & conditions and the environmental safeguards mentioned below:-

SPECIFIC CONDITIONS

- 1) The Project Proponent shall carry out the mining only in 187.57 Ha [185.57 Ha permissible mineral extraction area and 2 Ha for setting up of crusher of 500 TPH] only. The area of 208.395 Ha shall be treated as no mining area. In the no mining area only green belt development, afforestation and other protective activities shall be carried out.
- 2) The Project Proponent shall install the AQ station at the mine site, villages, from 500m edge of mining lease boundary towards Mini Zoo & White Tiger Safari for monitoring of any impact due to mining for the parameters mentioned.
- 3) The Project Proponent shall monitor the ground vibration at the site, near the boundary and sensitive receptor during blasting. Villages located in non-mining zone shall be protected from noise and vibration, air pollution by adopting measures as given in the EMP and as per the DGMS.
- 4) The budget of Rs 2.0 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.
- 5) The Project Proponent shall return each block within 2 years after completion of each activity at each block with the proper reclamation for the purpose of agriculture.
- 6) The Project Proponent shall undertake the plantation in peripheral zone and ensure that the plantation in peripheral zone and plantation along haul roads 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. PP shall



provide tree guard to maintain the early stages of plant growth. PP shall undertake commercial plantation within 2 years at each block after it is backfilled

- 7) The Project Proponent shall convert the proposed 1.7km road into cement road which connects the NH-75 for mineral transportation.
- 8) 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.
- 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 shall ensure that the water bodies used for community development.
- 11) The Project Proponent shall submit detailed Hydro Geological study for blocks where the water table is intersecting and obtain permission from CGWA before undertaking mining operations.
- 12) The Project Proponent should obtain permission for withdrawal of ground water before commencing mining operations.
- 13) The Project Proponent should strictly follow the protective measures as suggested by PCCF, MP in the NOC granted vide Lr .81 /3928 dated 10.06.2021 regarding the Maharaja Martand Singh Judeo Dev White Tiger Safari and Zoo.
- 14) Regular surveillance on Silicosis shall be carried through regular occupational health check up of 1/3 of the persons every year.
- 15) Project proponent shall examine the possibility of undertaking commercial plantation in consultation with local community within two years.

STANDARD CONDITIONS

I. Statutory compliance

- 1) 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.



- 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.paryesh.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. 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

- 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.

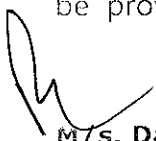
10) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading 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 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.

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. 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.

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 PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

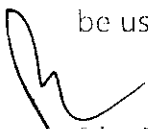
V. Mining plan

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 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

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

VII. Transportation

27) 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].

28) 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

29) 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.

30) 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.

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 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

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, MoEF&CC.

38) The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full



cooperation to the MoEF&CC 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 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.

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

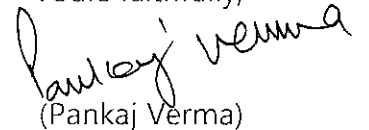
41) Concealing factual data failure to comply with any or submission of false/fabricated data and of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

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,



(Pankaj Verma)

Scientist 'E'

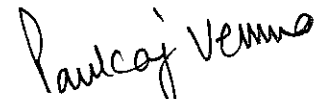
Email- pankaj.verma@nic.in

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). **Regional Officer**, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, E-5, Kendriya Paryavaran Bhawan, E-5 Arera Colony, Link Road No.3, Ravishankar Nagar, Bhopal -462 016.
- 7). **The Chairman**, Central Pollution Control Board, Parivesh Bhavan, CBD-cum Office complex, East Arjun Nagar, New Delhi-1100032.
- 8). **The Member Secretary**, Central Ground Water Authority, 18/11, Jam Nagar House, Man Singh Road, New Delhi-110011.
- 9). **The Chairman**, 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.**


(Pankaj Verma)
Scientist 'E'