



F.No.J-11015/42/2019-IA.II (M)
Government of India
Ministry of Environment, Forest and Climate Change
Impact Assessment Division

2nd Floor, Prithvi Block
Indira Paryavaran Bhawan
Jor Bagh Road, Aliganj
New Delhi-110 003
Date: 19th August, 2021

To

M/s J.K. Cement Works
Nimbahera, Kailash Nagar
District Chittorgarh – 312 617
Rajasthan

Sub: Proposal for Environmental Clearance for expansion of Maliakhara Limestone Mine (ML No. 04/2003, Area-315.409 Ha.) from 3.2 Million TPA (Limestone) to 6.3 Million TPA of Total Excavation (Limestone:- 5.6 Million TPA, Interburden (clay)/Screen rejects/Waste:- 0.245 Million TPA, Sub-grade Mineral (Mineral rejects): 0.425 Million TPA and Top Soil:- 0.030 Million TPA) with No Change in existing crusher (1500 TPH) & OLBC located at Village - Maliakhara, Tehsil - Nimbahera, District - Chittorgarh (Rajasthan) by M/s J.K. Cement Limited Kanpur – Environmental Clearance

Sir,

This has reference to proposal no.IA/RJ/MIN/210712/2019 for Environmental Clearance for expansion of Maliakhara Limestone Mine (ML No. 04/2003, Area-315.409 Ha.) from 3.2 Million TPA (Limestone) to 6.3 Million TPA of Total Excavation (Limestone:- 5.6 Million TPA, Interburden (clay)/Screen rejects/Waste:- 0.245 Million TPA, Sub-grade Mineral (Mineral rejects): 0.425 Million TPA and Top Soil:- 0.030 Million TPA) with No Change in existing crusher (1500 TPH) & OLBC located at Village - Maliakhara, Tehsil - Nimbahera, District - Chittorgarh (Rajasthan) by M/s J.K. Cement Limited.

1. EAC Meeting Details:

EAC meeting	34 th Meeting
Date of Meeting	27 th to 30 th July 2021

2. Project details:

M/s J.K. Cement Works, Rajasthan

Name of the Proposal	Expansion of Maliakhera Limestone Mine (ML No. 04/2003, Area-315.409 Ha.) From 3.2 Million TPA (Limestone) to 6.3 Million TPA of Total Excavation (Limestone: - 5.6 Million TPA, Inter-burden (clay/ Screen rejects/ Waste: - 0.245 Million TPA, Sub-grade Mineral (Mineral rejects):- 0.425 Million TPA and Top Soil: - 0.030 Million TPA) with no change in existing crusher (1500 TPH) & OLBC	
Location	Village	Maliakhera
	Tehsil/Taluka	Nimbahera
	District	Chittorgarh
	State / UT	Rajasthan
	Latitudes	24°40'04.7"to 24°41'22.4"N
	Longitudes	74°36'22.0"to 74°37'22.7"E.
	Sol/Topo sheet No.	45 L/10
Company's Name	M/s J.K. Cement Works(A Unit of J.K.Cement Ltd.)	
Accredited Consultant and certificate no.	Enkay Enviro Services Pvt. Ltd. NABET/EIA/2023/RA 0183 Valid upto 12.12.2023	
KML file	Submitted	
Seismic zone	II - Low Damage Risk Zone (MSK VI or less)	

3. Category details:

Category of the project	A Category
Provisions	EIA Notification 2006
Mining lease Area (MLA)	315.409 Ha

4. ToR/EC Details:

ToR Proposal No.	IA/RJ/MIN/99837/2019
Online application date for Form-I	08/03/2019
EAC meeting date	24 th EAC Meetings dtd on 11.12.2020
ToR Letter No.	J-11015/42/2019-IA-II (M)
ToR grant Date	28.12.2020
Production capacity	5.6 Million TPA
Soil	0.030 Million TPA
Waste	0.245 Million TPA
Others	0.425 Million TPA
Total Excavation	6.3 Million TPA
Crusher	No Change in existing crusher (1500 TPH) & OLBC
EIA/EMP uploaded on	30.04.2021
Previous EC details	<ul style="list-style-type: none"> EC obtained for expansion from 2.2 - 3.2 Million TPA (Limestone) for an area of 320 Ha.

	<p>vide letter no. J-11015/429/2008-IA.II(M) dated 06.08.2010.</p> <ul style="list-style-type: none"> • Amendment in Environment Clearance – reduction in lease area from 320 Ha. to 315.409 Ha. Vide letter no. J-11015/429/2008-IA.II(M) dated 21.02.2018. • Amendment in Environment Clearance – Installation of Crusher (1500 TPH) & OLBC vide letter no J-11015/429/2008-IA.II (M) dated 15.05.2018.
Date of earlier EAC meetings for appraisal of EC	31 st EAC Meeting dtd. 11.06.2021

5. Lease Details:

Granted Prospecting License	Area	320.0 Hectares
	Execution date	25.07.1984
	PL No.	04/2003
Prospecting operation, Commence date	13.12.1984	
Application for the Mining lease area and Date	<p>The change in granted ML area from 320 Ha. to 315.409 Ha. is basically due to error in demarcation of lease area given by the Department of Mines and Geology (Raj.) at the time of initial grant. This issue was resolved by the Department of Mines and Geology at the time of first renewal. This is the actual lease area as on date.</p> <p>First lease renewal for 20 years with area reduction from 320 Ha. to 315.409 Ha. was granted by State Govt. and registered on 06.08.2014.</p>	
Validity of mine lease	12.12.2034	
Letter of Intent/ Grant of ML	Letter No.	P4(298)KHAN/Group-02/81 dated 25.07.1984
	Date	25.07.1984

6. Mining plan details:

Mining Plan (approved by Indian Bureau of Mines/DMG)	Letter No.	584(4) (3) (1837)/ 2020 – RCM – AJM
	Date	24.11.2020.
	Validity	2020-21 to 2024-25
Mining Parameters	Quantitative Description	
Bench Height	9.0 ± 0.5 m	
Bench Width	50 m (Avg.)	

Method of Mining	Fully -Mechanized Opencast Mining
Individual bench slope	80° to 85°
Overall pit slope	45°
Drilling/Blasting	Drilling: - 2 No. of drills to be provided @ drilling rate 12m/ hour: 24.62/12 = 2.05 (say 2 drill) Blasting Pattern:- Burden: 3.5 m Spacing: 5.0 m Volume: 5 x 3.5 x 1.0 = 17.50 m ³ Tonnage Yield: 17.50 x 2.5 = 43.75 Tonnes
RoM output size	1.5m3
Life of mine	29.4 Years
Transportation details	By Dumpers , Tippers/OLBC
Dumpers capacity	40 Tonnes

7. Land Area Breakup:

Private land	198.409 Hectares
Government land	Govt. Waste Land: 40.0 Hectares; Grazing Land: 77.0 Hectares
Total Mining lease area (MLA)	315.409 Hectares
Private land for crusher, workshop & other infrastructure outside the MLA	NA

8. Nearest village / town/ highway/railway station / water bodies

Particulars	Distance (Km)	Direction
	(From Lease Boundary)	
Village/Town		
Nearest Village – Maliakhera	0.35	W
Nearest Town- Nimbahera	8.72	SE
Nearest City- Chittorgarh	20.61	NNE
Nearest District Headquarter–Chittorgarh	20.61	NNE
Highway:-		
NH-79	2.95	E
Railway Station:-		
Mangrol (Gambhiri Road)	5.16	ENE
Water Bodies		
Murlia Dam	1.52	ENE
SatkhandaNadi	4.89	NE
Gambhiri River	9.6	ENE

Forests		
Alsigarh P.F.	3.90	W
Kalkaliya R.F	4.10	NW
Bansaria Block P.F.	4.78	W
Kannauj Block P.F.	5.18	WNW
Kotmagra R.F.	6.75	SW
Machhliya R.F.	5.88	NW
MabalBodiya R.F	8.75	SW
Dhamariya R.F.	9.0	W
MujalAronda P.F	9.18	W
Dhamariya R.F	9.0	W
BhamariyaKhalasa Block PF	9.71	WNW

9. Water requirement

Total water requirement	161 KLD	Fresh water	1.0 KLD
		Treated water	160.0 KLD (Pit Water)
Source	Ground Water for Drinking Mine pit water for mining activities		
Permission	NOC from CGWA has been obtained vide letter no. 21-4(286)/WR/CGWA/2008-1676 dtd on 28.10.2015. Revised renewal application has been submitted on 10.01.2021.		

10. Presence of Environmentally Sensitive areas in the study area

Forest Area/Environmental Zone	Land/Protected Sensitivity	Yes/No	Details of Certificate/letter/Remarks
Forest Land		No	-
National park		No	
Wildlife Sanctuary		No	

Schedule-1 species	Yes/No	Details of Certificate/letter/Remarks
Schedule-I species	Yes	Combined Wildlife Conservation Plan has been approved by the Deputy Conservator of Forest, Chittorgarh vide letter no. f () survey/ DCF/2020-21/ 3252 dated 10.06.2021.

11. Green belt/plantation details:

Proposed area for green belt/plantation	53.43 Hectares
Budget for green plant & plantation till the end of life of mine.	267.15 Lacs & recurring cost 16.02 Lacs/
Budget for nursery	--

Particulars for Green belt/plantation	Area covered (in Ha)
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7.5 m barrier & non-mineralized zone	Out of the total safety zone area of 6.128 ha, plantation has been done in 3.05 ha and balance area of 3.078 ha will be completed during FY 2021-23&31.135 ha area will be covered in non-mineralized area till end of mine lease.
50 m safety zone of nallah, roads, electric lines	--
500 m safety zones of nearest habitation villages	--

12. Baseline detail

Baseline Data (Air / Water / Noise / Soil / Ground water table/ others)	
Period of baseline data collection	March, April, May -2018
Season (Summer / Pre-monsoon / Post-monsoon / Winter)	Summer

13. Public Hearing (PH) Details

Advertisement for PH with date	DainikBhaskar -01.02.2021 Rajasthan Patrika - 02.02.2021
Date of PH	09.03.2021.
Venue	At Project Site, Phalwa Road, Nimbahera, District-Chittorgarh (Raj).
Chaired by	Mr. Ratan Kumar, Additional District Collector, Chittorgarh and Mr. SharadSaxena, Regional Officer, Rajasthan State Pollution Control Board, Chittorgarh.
Main issues raised during PH	Community Infrastructure Development, Drinking Water, Education, Environment
Budget proposed for addressing issues raised during PH	514 Lacs

14. Court case details:

Court Case	NA
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15. Rehabilitation & Resettlement:

R & R details	NA
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16. Previous EC compliance and production details:

Particulars	Letter no. and date
Certified EC compliance report	Certified EC Compliance from RO, Lucknow, has been obtained vide letter no.

	IV/ENV/R/MINE-223/333/2005 dated 09.12.2020.
Certified past production	The authenticated past production records have been obtained from the Office of Assistant Mining Engineer, DMG Nimbahera vide letter no. Ame/ NBH/ Static/ 2021-22/ 22 dated 22.06.2020

18. ADS details:

ADS No.1: Through KML file, adequate plantation was not observed and no efforts have been made for last 30 years. It is suggested to complete the plantation as committed.

Reply: Plantation status is as follows:

SN	Particular	Plantation Status During TOR Presentation	Plantation Committed till 31 st March 2021	Present Status
1	Area under plantation (Ha) including 7.5 m Safety Zone area (Total safety zone area-6.128 ha)	25.03 (Including Safety Zone-1.445 ha)	29.53	31.14 (Including Safety Zone-3.05 ha)
2	Nos. of plantation	44029	59060	63072
3	Density (Nos./ha)	1759	2000	2025

Out of the total safety zone area of 6.128 ha, plantation has been done in 3.05 ha and balance area of 3.078 ha will be completed during FY 2021-23.

ADS No.2: The mine lease has already worked out. A budget and the plan to be submitted to the Ministry to restore the ecosystem in the mining area. Plan for possibility of restoring the agricultural land must also be incorporated.

Reply:

The mine is under operation. The total ML area is of 315.409 ha and OB quantity is inadequate to reach the threshold level of backfilling. Hence, mining plan as approved by the IBM is without back filling. Land use pattern at CP Stage is given below showing restoration of ecosystem by plantation in 68.815 ha, re-grassing in 30.692 ha and water reservoir in 215.902 ha:

SN	Particulars	Land use status as on 31.03.2021 (Ha.)	Land use status at Conceptual Stage (Ha.)	Restoration Budget (Rs. In Crore)
1.	Pits Area	72.001	215.902 (Water Reservoir)	0.28 (Fencing along the Pits)
2.	Inter-burden /reject/waste dump Soil Stack	- 0.859	- -	- 0.015 (Garland drain and sedimentation)

				pits)
	Sub Grade Stack	6.71	17.822 (Re-grassing)	
3.	Infrastructure (Mine office 0.012 ha, Store room 0.022 ha, Nitrate room 0.044 ha, Weigh bridge 0.054 ha, Rawanna office 0.001 ha, Magazine 0.801 ha, Road 8.967 Ha, Crusher 2.664 ha, Belt Conveyor 0.305 ha)	12.87	12.87 (Re-grassing after demolition of structure)	0.31
4.	Embankment	0.93	9.68 (Plantation)	1.32
5.	Plantation (Within lease)	29.53	59.135 (Plantation)	
6.	Other Barren land	11.596	-	-
7.	Crop land	147.546	-	-
8.	Grazing land	33.367	-	
Total		315.409	315.409	1.925

ADS No.3: Impact of recharge of ground water on the hydrology and the water balance at the pit though it and its utilization for community giving a total water balance such as use at the plant, use at the mine and use in the villages be given in a tabular form.

Query no. 4: The Committee feels that there is adequate pit water available; the justification for drawl of additional ground water is required.

Reply:

Water Consumption with Source for Maliakhera Limestone Mine is given as below:

S.N.	Particulars	Existing (KLD)	After Expansion (KLD)	Source
1.	Domestic	1.0	1.0	Ground water for Drinking(0.6 %)
2.	Dust Suppression (Haul road and wet drilling)	80.0	80.0	Mine Pit water for mining activities (99.4%)
3.	Plantation	60.0	60.0	
4.	HEMM Washing	1.0	20.0	
Total		142.0	161.0	

❖ In Maliakhera mine, the entire operation is based on mine pit water. Hence, there is a positive impact in the ground water regime due to natural recharge through mine pit.

- ❖ We have five captive limestone mines and two integrated cement plants (Nimbahera and Mangrol) within the 15 KMS radius and the main source of water is rain water collected in the mining pits. After meeting the captive requirement, we provide water to the farmers for agriculture. This ensures that we don't have to withdraw water from ground water sources for the operation of cement plants.

- ❖ During FY 2020-21, the rainfall was 352 mm and water collection in the mine pit was very less which is the main source of water for integrated cement plant. During the year, 81% (8.34 lacs KL) water requirement was met from mine pit and rest 19% (1.99 lacs KL) from ground source. Details of mine pit water utilization is given as below:

S. No.	Mine	Total Pit Water Available in FY 2020-21 at Rainfall of 352 mm.	Pit Water Utilization FY 2020-21		
			Mining Activity	Cement Plant	Agriculture
1	Karunda	2.60	0.37	2.12	0.11
2	Maliakhera	3.0	0.48	2.52	0
3	Nimbahera-Ahirpura	2.57	0.06	2.51	0
4&5	Tilakhera&Mangrol	1.67	0.48	1.19	0
Total		9.84	1.39	8.34	0.11

- ❖ However, considering average rainfall of 846 mm, total available water in mine pits will be 13.51 lacs KL with total pit area 319.5 ha of all 5 nos. of Captive Limestone mines in FY 2021-22. Details are given as below:

SN	Mine	Pit Area (Ha)	Rainfall (mm)	Total rain water Collection (lacs m3)	Evaporation losses (30%, Lac M3)	GW Recharge (20%, LacM3)	Net Water Available in Pit (Lac m3)
1	Karunda	66.34	846	5.62	1.69	1.12	2.81
2	Maliakhera	77.44		6.55	1.97	1.31	3.28
3	Nimbahera-Ahirpura	98.74		8.35	2.51	1.67	4.18
4	Tilakhera	44		3.72	1.12	0.74	1.86
5	Mangrol	32.92		2.79	0.84	0.56	1.39
Total		319.5		27.03	8.11	5.41	13.51

- ❖ Maximum water requirement for all five LS mine and both cement Plant is 11.8 lacs KL/ Annum (Including Cement plant-10.4 lac KL/Annum and Mining activities-1.4 lac KL/annum). Hence, above details indicate that with the average rainfall, operation of mining & cement plants will be water neutral and additional available water of 1.7 lac KL will be made available to the farmers for agricultural activities. The GW recharge from the mine pits is 5.4 lacs KL/Annum will have positive impact on GW regime.

ADS No. 5: Noise modeling studies by taking actual data during blasting be generated, actual data monitored at the receptor during blasting be collected for calibration of model.

Reply:

Subsequent to the observations of the Committee, the measurements were taken on 25th June 2021 during the blasting at nearest Village Karunda and Charlia. Actual data monitored has been submitted with the ADS reply.

ADS No. 6: Impacts on air quality due to vehicular emission as the material are being transported actually to be monitored and modeled using calibrated data.**Reply:**

The present traffic load is 267 trucks/trips per day and due to proposed expansion an additional traffic intensity of 216 trucks/trips per day which would be transporting mineral from the crusher to cement plant. Further OLBC is proposed to be installed from the Crusher to the Cement Plant which will reduce traffic load and eventually the Pollution load in the environment.

AIR QUALITY MODELLING

In order to predict the incremental rise of ground level concentration of particulate and gaseous emissions, AERMOD View Version 7.1.0 was used to envisage changes in air quality i.e., maximum ground level concentration (GLC's) of PM₁₀, PM_{2.5}, NO_x and CO due to the mining activity and proposed expansion of cement plant. The inputs required for the model is:

- Hourly Micro - Meteorological data (Wind Speed, Direction, Temperature, Monitoring Period, Location, Cloud Cover, Mixing Height etc.).
- Source data (Area and Line Source)
- Receptor data (441 nos.)
- Programme Control Parameters (Topography, Elevation, Terrain etc.).

The GLC's were predicted for the scenario, with EMP in the mine.

The incremental rise of ground level concentrations are computed for 24-Hr average. The maximum ground level concentrations of PM₁₀, PM_{2.5}, NO_x and CO from the different mining activities and cement plant for study period with EMP are given with the ADS reply.

ADS No. 7: A commitment to put a conveyer belt by August and another conveyer belt within a year should be given in writing. PP needs to submit the efforts done for decreasing the impacts of vibration and transportation after installation of first conveyer belt as early as possible.**Reply:**

- ❖ Erection of OLBC has been delayed for want of approval from the Commissioner of Railway Safety (CRS) as the OLBC will cross the railway tracks of Gambhiri Railway Station. Without the approval from the Commissioner of Railway Safety, the work of laying of steel girder over the track cannot be taken up. After getting the CRS approval, the work will be completed within three months for transportation of limestone from common crusher of Karunda Limestone Mine and Maliakhera Limestone mine to the Mangrol Cement Plants.
- ❖ With regard to second line of OLBC from the same crusher to Nimbahera plant will also require approval from Railway, Highway Authority and Wonder Cement Company as the OLBC will cross the railway siding of Wonder Cement company and NH 56 (Ajmer-Neemach). We have noted the advice of the EAC and will explore the feasibility of crossing the road and railway and, accordingly, will inform the Ministry about timeline to complete it. However, we would like to inform that the existing road is company's road and there will be no additional traffic load on it.
- ❖ After installation of Line 1 of OLBC, the vibration and noise levels will be monitored and appropriate measures will be adopted as per the supplier advice to keep

the noise and vibration levels within the prescribed norms.

ADS No. 8: Conservation plan appears to be common for 5 mines and 2 plants of M/s J.K. Cement Limited. Cost should be separated and included in the budget for each mine and the plant.

Reply:

5 Nos. of captive Limestone Mines and 2 Nos. of Integrated cement Plant of J K Cement Ltd are situated within 10 KMS radius in Tehsil Nimbahera, Chittorgarh District and accordingly, Cumulative Wildlife Conservation Plan for 6 Sch-1 Species (Indian Peafowl (*Pavocristatus*), Panther (*Pantherapardusfusca*), Rusty Spotted Cat (*Prionailurusrubiginosus*), Indian Wolf (*Canis lupus pallipes*), Indian Monitor lizard (*Varanusbengalensis*) and Indian vulture (*Gyps indicus/ bengalensis*) has been prepared with a total cost of Rs. 285.30 lakhs.

Now, as advised by Hon'ble Committee, the total WLCP cost has been separated on the basis of area (land) of each mine and plant and the details are given below:

Project Name	Area (In Hect.)	Amount(In Rs. Lacs)
Nimbahera- Ahirpura Limestone Mine	403.1875	67.31
Nimbahera Cement Plant	170.27	28.42
Mangarol Cement Plant	149.42	24.92
Karunda Limestone Mine	240.86	40.2
Maliakhera Limestone Mine	315.409	52.53
Tilakhera Limestone Mine	299.2	49.92
Mangrol Limestone Mine	132.0	22.0
Total	1710.3	285.30

ADS No. 9: PP needs to submit the revised EMP cost by removing monitoring cost from the budget and include plantation to be completed in 3 years in the peripheral and non-mineral zone, plantation outside the lease, avenue plantation on the transport road and the no. of plants to be planted year-wisely with the budget.

Reply:

Revised EMP cost after removing monitoring cost and occupational health management cost has been submitted with the ADS reply.

ADS No. 10: Cost of equipment for the dust control, noise control and vibration control to be indicated separately in the EMP cost. The budget and plan for creating water harvesting structures in the villages nearby also to be submitted.

Reply:

Cost of additional measures are given below:

1. Dust Control: Rs. 35 Lacs for Water tanker for haul road spray
2. Noise and Vibration Control: Existing best available mining technique which includes wet drilling, controlled blasting (NONEL) and maintenance of HEMM etc. will be continued. Cost of additional plantation to check the noise level will be Rs. 2.67 crores.
3. Water Harvesting Structures in the Villages: We have developed a anikut near Vilalge Maliakhera and it is filled with mine water by dedicated pipeline which is used for agriculture need and recharge the ground water.

ADS No. 11: Cost for EMP to address the public hearing issues should have only capital investment and also the recurring cost if any be submitted in a tabular form.

Reply:

SN	Activity Head	CSR Project or activities	Time bound Action Plan with Budgetary allocation	Amount Rs in Lakh			Total
				2021-22	2022-23	2023-24	
1	Community Infrastructure Development	Gaushala in Village Maliakheri.	There is an issue of land availability from panchayat however, proposal for Construction of Gaushala in village Maliakhedi has been taken up, which will be done in FY 2021-22 with a budget of Rs. 10 Lakhs .	10.00			10.00
		Dairy building in Village- Karunda	Proposal for Construction of dairy building in village Karunda has been taken up, which will be done in FY 2021-22 after getting proposal from Panchayat.	20.00			20.00
		CC road in Village- Maliakheri	Repair of CC road in Village Maliakheri of 2.4 kms will be done .			30.00	30.00
		Construction of Community Center and drainage in Village Bansa& Renovation of Bathroom.	Community Center and Drainage in Village Basa will be done in FY 2021-22 & 2022-23 respectively	20.00	10.00		30.00
		Construction of Community Center in village Karunda	Construction of community center will be done in FY 2023-2024 after land allotment by panchayat.		20.00	20.00	40.00
		CC road from main road to temple in Village PipaliyaGadiya	Construction of CC road from main road to temple in Village Karunda i.e. of 800-900 m length will be constructed by year	20.00			20.00

		2021-22.				
	Construction of New School Bulding in Maliakhera Village (3Rooms &Baramda . Toilet)	Construction of school building which will be done in FY 2021-22 (30 Lakh for school building 18X20 square feet and 6 feet baramda) and 10 Lakh for toilet in FY 2022-23.	30.00	10.00		40.00
	Beautification of Pond and a garden with open gym in the village Karunda.	Beautification of Pond and a garden with open gym will be done in the village Karunda by year 2022-23 and Year 2023-24 respectively.		15.00	10.00	25.00
	CC road along with drain construction work in Village-Saand.	Construction work of CC road (800 -900 Mtr) along with drainage in village sand will be done by the Company in FY 2021-22 with the expenditure 18 Lakh.	18.00			18.00
	CC Road in Maliakheri.	Budget of Rs. 26 Lakhs was allotted for the construction of CC Road (Length: 2.4 Km) in Maliakhera Village. Work will be done in year 2021-22.	14.00	12.00		26.00
	CC road and drainage in Village Dhanora	Construction of CC road (800-900 mtr) and drainage in Village Dhanora will be done in year 2021-22	20.00			20.00
	Gravel Gitty link road between Village Bansa and Piplia	Construction of gravel gitty link road (2.0 km) will be done in year 2022-23 .		20.00		20.00
	Community building work-village saand.	Construction of Community building work (80 X 20 Square feet) will be		30.00		30.00

			done in year 2022-23.				
		Burial sites development work in Paury, Sanda, Shergarh and Pipilia.	Total budget of Rs. 42.0 Lakh has been taken for development work of Burial sites in four village (Payri 10 Lakh, Saand 7 Lakh, Shergarh 5 lakh and in Pipliya 20 Lakh) and work will be done in year 2022-23 and 2023-24 respectively.		17.00	25.00	42.00
		School building and campus at Village Pipliya and Shergarh.	Construction of school building (3 rooms of 18 X 20 square feet) in Village Pipaliya and shergarh will be done in year 2022-23 and 2023-24 respectively.		20.00	20.00	40.00
		Boy and girl toilets Village Saand	Construction of toilets (10 X 20 square feet) in Village Saand will be done in year 2021-22.	5.00			5.00
		Community Hall in Phalwa Village	work is going on and will be completed in the year 2022-23.	30.00	15.00		45.00
		Road from JK main road to school at Village Peerkheda	Construction of road (0.7.km) from JK main road to school and work will be done in the year 2022-23.		4.00		4.00
2	Drinking Water	Tubewell in school in Village Peerkheda	Work will be done in the year 2021-22.	2.00			2.00
		Pipeline for drinking water in entire Paury, Karunda and PipaliyaGadia village .	900 pipes required for all three village and approx. 1.5 KM distance will be done in FY 2021-22.	20.00			20.00

3	Local Needs	Need based	Total project cost is Rs. 87.70 Crore and considering 2% of project cost, total CER cost comes to Rs. 175 lacs. However, we are proposing CER Cost of Rs. 514 lacs. Accordingly there is an additional provision of Rs. 27 lacs to meet the instent requirement from the community			27.00	27.00
			Total	209.00	173.0	132.0	514.00

19. Details of the EMP:

S. No.	Particulars	Capital Cost (Rs. In Lacs)	Recurring Cost/ Annum (Rs. In Lacs)
1	Pollution Control Measures		
	(Dust Suppression & Water Sprinkling etc.)- One no of high-efficiency nozzle mounted water tanker for water sprinkling on haul roads.	35.00	5
2	Green Belt Development Plan		
	Plantation & Green belt (1.64 ha, 4100 nos plant @200 Rs.) in FY 2021-22 on safety zone.	8.20	1.00
	Plantation & Green belt (3.25 ha, 8125nos. of plants @200 Rs.) in FY 2022-23, 1.0 ha, Out of total 3.25 ha, 1.438 ha on safety zone and 1.812 ha on non-mineral zone.	16.25	2.00
	Plantation & Green belt (3.25 ha, 8125 nos. of plants @200 Rs.) in FY 2023-24 on non-mineral zone	16.25	2.00
	Plantation & Green belt (45.29 ha, 1,13,225 nos plant @ 200 Rs.) from 2024-25 to end life of mine (2050)	226.45	27.17
	Sub- total	267.15	32.17
3	Public Hearing Action Plan (CSR Activities) for three year	514	15.50
4	Wildlife Conservation Plan (for 6 Schedule-I species) for ten year	52.53	0.0
	Grand Total(1+2+3+4)	868.68	52.67

Note: In addition to EMP cost, capital cost towards the environmental monitoring will be as Rs. 50 lacs and recurring cost will be Rs. 06 lacs/Annum

20. Details of project cost and employment:

Particulars	(Rs. In Crore)
Capital Cost for Environment Protection	50 lacs
Budget for addressing the Public Hearing issues	5.14
Total Cost for EMP	868.68 Lacs
Recurring Cost for EMP	52.67 Lacs/annum
Project Cost	87.70
Employment	105 Persons (43% increment)

21. The Committee observed visible efforts to follow the advice of EAC regarding plantation etc. In the last meeting held during 9th to 15th June, 2021, the PP could not showcase through proper video drone coverage, the compliance to EC conditions, it was suggested to visit the site for onset assessment by the committee. In this meeting, the presentation on all ADS points with plantation, as per the commitment, air quality and cumulative impact, noise safety measures during the blasting including the prediction, EMP for public with capital investment, EMP at the site by removing monitoring cost as well as the status of OLBC which is as per the commitment within 6 months. The virtual site visit through KML and drone visuals/video is adequately showcased. The Committee noticed that mine lease is valid till 11.12.2034. It was also noticed that the Terms of Reference mentioned that this proposal is under the provisions of Notification S.O. 1530 (E) but it was typographical error and this proposal does not falls under the provisions of Notification S.O. 1530 (E). It is a case of expansion. Also, the Committee asked to submit the revised EMP budget and PP submitted the same vide letter dated 27.07.2021.

22. EAC noted that at the efforts made by the PP and after detailed deliberations made by the Project Proponent and the Consultant, the Committee during its Meeting held during 27th to 30th July 2021 recommended the proposal for Environmental Clearance for expansion of Maliakhera Limestone Mine (ML No. 04/2003, Area-315.409 Ha.) from 3.2 Million TPA (Limestone) to 6.3 Million TPA of Total Excavation (Limestone:- 5.6 Million TPA, Interburden (clay)/Screen rejects/Waste:- 0.245 Million TPA, Sub-grade Mineral (Mineral rejects): 0.425 Million TPA and Top Soil:- 0.030 Million TPA) with No Change in existing crusher (1500 TPH) & OLBC located at Village - Maliakhera, Tehsil - Nimbahera, District - Chittorgarh (Rajasthan) by M/s J.K. Cement Limited Kanpur along with the specific conditions.

23. The Ministry has examined the proposal in accordance with the Environmental Impact Assessment Notification, 2006 and further amendments thereto; and after accepting the recommendation of 34th meeting EAC held during 27th to 30th July 2021 and grants the Environmental Clearance for expansion of Maliakhera Limestone Mine (ML No. 04/2003, Area-315.409 Ha.) from 3.2 Million TPA (Limestone) to 6.3 Million TPA of Total Excavation (Limestone:- 5.6 Million TPA, Interburden (clay)/Screen rejects/Waste:- 0.245 Million TPA, Sub-grade Mineral (Mineral rejects): 0.425 Million

TPA and Top Soil:- 0.030 Million TPA) with No Change in existing crusher (1500 TPH) & OLBC located at Village - Maliakhera, Tehsil - Nimbahera, District - Chittorgarh (Rajasthan) by M/s J.K. Cement Limited with the following specific conditions and standard conditions subject to compliance of the followings terms and conditions and environmental safeguards mentioned below.

A. Specific conditions

- 1) The safety zone from nearby village currently maintained at 300 m till the life of mine must be maintained and in case if there is a plan to access less than this distance, specific statutory permission will be required for accessing the minerals, besides, fresh studies to assess impacts of blasting on the adjoining village due to noise, vibration and air pollution be done and submitted.
- 2) The project proponent should explore the possibility of plantation in the adjoining area outside the lease boundary between the village and the mine lease to create a barrier of at least 50 m width belt.
- 3) It is proposed to create a water reservoir at 215.902 Ha at the end of closure of mine. PP must submit a detailed plan that how will this water reservoir be protected, utilized for villagers in agriculture after necessary treatment.
- 4) The project proponent should explore the possibility of use of permanent water sprinklers for control of dust on the haul roads within the mine lease area.
- 5) PP should ensure plantation in the mined out pits in the benches which are not sub-merged in water with 95% survival rate.
- 6) OLBC must be completed within 5 months as committed during the presentation.
- 7) PP must not exceed the total excavation that it has considered for preparation of EMP at any time during the operation.
- 8) The PP must submit the status report of plantation in the periphery, non-mineral zone, safety zone, avenue plantation, and either side of village road to the Ministry in every 6 months.
- 9) The compliance to public hearing as indicated in the table with an investment of 514 Lakhs be submitted annually to the Ministry.
- 10) Submit the update on implementation of Wildlife Conservation Plan both specific to this mine expenditure as well as combined expenditure annually.
- 11) At the time of revision of mining plan, EMP if modified, for a peak production be submitted along with the revised mining plan to the Ministry.



- 12) The study carried out by drone and shown during the presentation must be submitted to the Ministry for the purpose of record.

B. 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) This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.
- (5) This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.
- (6) Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board/Committee.
- (7) The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.
- (8) The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.
- (9) 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".

- (10) The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.
- (11) 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.
- (12) 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.
- (13) 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). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.
- (14) The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

II. Air quality monitoring and preservation

- (1) 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.
- (2) 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

- (1) 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.
- (2) Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. 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.
- (3) 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.
- (4) 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 and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. 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.

- (5) 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.
- (6) 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.
- (7) 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.
- (8) 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

- (1) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
- (2) 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.

- (3) 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

- (1) The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.
- (2) The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.
- (3) 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.

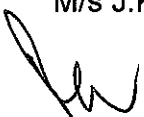
VI. Land reclamation

- (1) The Overburden (O.B.) 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 dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to

maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.

- (2) The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.
- (3) The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.
- (4) 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.
- (5) The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC.
- (6) 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.
- (7) 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.
- (8) The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.

VII. Transportation



- (1) 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.
- (2) 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

- (1) 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.
- (2) 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.

- (3) 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.
- (4) The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.
- (5) And implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.

IX. Public hearing and human health issues

- (1) The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEFCC Regional Office and DGMS on half-yearly basis.
- (2) The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.
- (3) The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests

and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).

- (4) The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1), Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEFCC annually along with details of the relief and compensation paid to workers having above indications.
- (5) The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
- (6) 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.
- (7) The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status

Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.

X. Corporate Environment Responsibility (CER)

- (1) The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.
- (2) Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEFCC and its concerned Regional Office.

XI. Miscellaneous

- (1) 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.
- (2) 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.
- (3) 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.
- (4) 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.
- (5) 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.


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

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

26. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Chhattisgarh and any other Court of Law relating to the subject matter.

27. 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.


28. This issues with the approval of Competent Authority.

Yours faithfully,

(Pankaj Verma)
Scientist E

Copy to

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi-110 001.
2. The Secretary, Department of Mines & Geology, Government of Rajasthan, Secretariat, Jaipur.
3. The Secretary, Department of Environment, Government of Rajasthan, Secretariat, Jaipur.
4. The Secretary, Department of Forests, Government of Rajasthan, Secretariat, Jaipur.
5. The Chief Wildlife Warden, Government of Rajasthan, Jaipur.
6. The Deputy Director General of Forests (C), Ministry of Env., Forest and Climate Change, Integrated Regional Office, Jaipur , A-209&218, Aranya Bhawan, Mahatma Gandhi Road, Jhalana Institutional Area, Jaipur – 304002, Rajasthan
7. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110 032.
8. The Member Secretary, Central Ground Water Authority, 18/11, Jam Nagar House, Man Singh Road, New Delhi-110 011.
9. The Chairman, Rajasthan State Pollution Control Board, Jaipur, Rajasthan.
10. The Controller General, Indian Bureau of Mines, Indira Bhawan, Civil Lines, Nagpur-440 001.

11. The District Collector, Chittorgarh
12. Guard File.
13. PARIVESH.


(Pankaj Verma)
Scientist E