



Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The Unit Head and Authorized Signatory
JK CEMENT LIMITED

J.K. Cement Works, Kailash Nagar, Nimbahera, District – Chittorgarh,
Rajasthan,,chittorgarh,Rajasthan-312617

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity
under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/RJ/MIN/234184/2021 dated 27 May 2022. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|---|
| 1. EC Identification No. | EC22A001RJ177273 |
| 2. File No. | IA-J-11015/77/2021-IA-II(NCM) |
| 3. Project Type | New |
| 4. Category | A |
| 5. Project/Activity including Schedule No. | 1(a) Mining of minerals |
| 6. Name of Project | Proposed Limestone Mine- Khinya-II(A) Block (Auction Block), (Area: 304.0 ha) with total excavation of 6.04 Million TPA including 5.50 Million TPA ROM (Cement grade 5.40 million TPA and SMS grade 0.10 million TPA); 0.28 Million TPA Interburden and 0.26 Million TPA Alluvial Sand/Top soil along with Installation of one mobile crusher of 50 TPH and 1500 TPH Crushers with vibrating screen near Village: Khinya, Tehsil: Shri Mohangarh, District: Jaisalmer (Rajasthan) by J.K. Cement Limited. |
| 7. Name of Company/Organization | JK CEMENT LIMITED |
| 8. Location of Project | Rajasthan |
| 9. TOR Date | 16 Dec 2021 |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 11/07/2022

(e-signed)
Pankaj Verma
Scientist E
IA - (Non-Coal Mining sector)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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IA-J-11015/77/2021-IA-II (NCM)
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: 11th July, 2022

To,

M/s JK Cement Limited
Kamla Tower, Kanpur- 208001,
Uttar Pradesh

Sub: Environmental Clearance for Limestone Mine - Khinya-II (A) Block of M/s JK Cement Limited in the Mining lease area of 304.0 ha with total excavation of 6.04 MTPA including 5.50 MTPA ROM (Cement grade 5.40 MTPA and SMS grade 0.10 MTPA); 0.28 MTPA Inter-burden and 0.26 MTPA Alluvial Sand/Top soil along with Installation of one mobile crusher of 50 TPH and 1500 TPH Crushers with vibrating screen located at Village Khinya, Tehsil Shri Mohangarh (Mohangarh), District Jaisalmer, Rajasthan – reg.

Sir,

This has reference to the proposal no. IA/RJ/MIN/234184/2021 for Environmental Clearance for Limestone Mine - Khinya-II (A) Block of M/s JK Cement Limited in the Mining lease area of 304.0 ha with total excavation of 6.04 MTPA including 5.50 MTPA ROM (Cement grade 5.40 MTPA and SMS grade 0.10 MTPA); 0.28 MTPA Inter-burden and 0.26 MTPA Alluvial Sand/Top soil along with Installation of one mobile crusher of 50 TPH and 1500 TPH Crushers with vibrating screen located at Village Khinya, Tehsil Shri Mohangarh (Mohangarh), District Jaisalmer, Rajasthan.

2. Project details:

Location	Latitudes	27°17'25.68" N to 27°18'31.03" N
	Longitudes	70°50'59.97" E to 70°52'13.78" E
	Sol Topo Sheet No.	Core zone - G42E15 Buffer Zone - G42E15 & G42E16
Company's Name	M/s. J.K. Cement Limited	
Accredited Consultant and certificate no.	J. M. EnviroNet Pvt. Ltd. Accredited EIA Consultant by NABET (QCI) Certificate No: NABET/EIA/2023/RA 0186, dated 17.12.2020 & valid up to 07.02.2023	
KML file	KML has been uploaded in Form 2 & same is enclosed	
Seismic zone	Zone - II as per IS:1893 (Part - I) : 2002	

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3. Category details:

Category of the project	Category "A", Project or Activity 1 (a) - 3 for Mining of Mineral and 2 (b) - beneficiation of minerals
Provisions	EIA Notification dated 14 th September, 2006 and its subsequent amendments
Mining lease Area (MLA) (in ha.)	304.0 ha

4. ToR Details:

ToR Proposal No.	IA/RJ/MIN/234184/2021
Online application date for Form-I	14.10.2021
Documents Submitted	Form I, PFR, SOI, Toposheet, KML File, Approved Mining Plan, etc.
EAC meeting date	15.11.2021
ToR Letter No.	IA-J-11015/77/2021-IA-II (NCM)
ToR grant Date	16.12.2021
Production capacity	5.50 MTPA ROM (Cement grade 5.40 MTPA and SMS grade 0.10 MTPA)
Soil	0.26 MTPA Alluvial (Aeolian sand)/Top soil
Waste	0.28 MTPA Inter-Burden
Total Excavation	6.04 MTPA
Crusher	Installation of one mobile crusher of 50 TPH and 1500 TPH Crushers with vibrating screen
EIA/EMP uploaded on	27.05.2022

5. Lease Details:

Validity of mine lease	50 years from registration of mining lease	
Letter of Intent	Letter No.	p 3(1) Khan/Gr. – 2/2021
	Date	18.05.2021
Additional information	Letter of Intent (LOI) through E-auction was granted in favor of JK Cement Limited by State Government of Rajasthan vide order no. p 3(1) Khan/Group.-2/2021 dated 18.05.2021.	

6. Mining plan details:

Mining Plan (approved by Indian Bureau of Mines/DMG)	Letter No.	584 (4)(3)(1875)/2021-RCM-Ajmer
	Date	11.08.2021
	Validity	Upto 2021-2022 to 2025-2026
Additional information	Transportation of Limestone	Initially in first 2 years production (ROM-Crushed limestone) will be nil. 3rd year production will be 0.15 MMTPA and 4th year will be 1.0 MMTPA which will be transported by 40 Tonnes limestone

		carrying capacity tippers from mine crusher to the nearest Railway Siding at Lanela/Sonu and then by railway to the existing cement plants of the company at Nimbahera and Mangrol in Rajasthan till set up of cement plant near to the deposit expected by 2027-28.
Mining Parameters	Quantitative Description	
Bench Height	4.5 to 6.0 m	
Operational Bench Width	10 to 20 m	
Bench width in m (Final Closing stage)	6.0 m	
Method of Mining	Fully – Mechanized Opencast Mining	
Individual bench slope	80° vertical	
Ultimate pit slope	45°	
Drilling/Blasting	Mineral (Max) per day	19262 t
	Height of bench	6.0 m (max)
	Depth of hole including sub grade drilling	6.6 m
	Burden	3.0 m
	Spacing	4.0 m
	Volume blasted per hole (6 x 3.0 x 4 = 72.0)	72.0 cu.m
	Tonnes blasted per hole (72.0 x 2.50)	180.00 t
	Powder Factor t/kg of explosive	6
	Explosive per hole	30 kg
	Explosive per day (19262/6 = 3210.33 kg)	3210 kg
	Ammonium Nitrate and Fuel Oil (ANFO) (90% ANFO & 10% Booster)	3210 kg / day
RoM output size	Up to 1.5 m3	
Life of mine	27 years	
Transportation details	Excavated Limestone will be transported to the crusher (50 TPH and 500 TPH capacity) with the help of dumpers (40/60 Tonnes capacity) and further crushed limestone will be sent initially in existing cement plant of company in Rajasthan (by 40 Tonnes capacity tippers to the nearest Railway Siding at Lanelu/Sonu and will be further transported by rakes to our existing cement plant) in 3 rd year and later on to Captive Cement Plant by 40 Tonnes capacity of tippers by own road till Overland Belt Conveyor (OLBC) gets commissioned.	
Dumpers capacity	40/60 Tonnes capacity from mine face to crusher through haul road. 40 Tonnes capacity tippers Captive Cement Plant till OLBC gets commissioned.	

7. Land Area Breakup:

M/s JK Cement Limited, Rajasthan

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Private Agriculture land	95.72 ha
Government land	43.03 ha (Grazing land) & 165.25 ha Govt land
Total Mining lease area (MLA)	304.0 ha

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

Particulars	Particular's Name	Directions
Nearest village	Khinya	~ 2.0 km in NNE direction
	Khinwasar	~ 1.8 km in SE direction
Nearest Town / City	Jaisalmer	~ 42 km in SSE direction
Nearest State/National Highway	Tar Road (Passing through the ML Area)	
	MDR – 19	~ 4.5km in WNW direction
	MDR – 103	~ 7.0 km in North direction
Nearest Railway Station	Jaisalmer	~ 42.0 km in SSE direction
Nearest Water Bodies	Indira Gandhi Canal (Sagarmal gopa branches)	~ 7.5 km in NNE direction
Nearest Airport	Jaisalmer	~47 km in South direction

9. Water requirement

Total water requirement	158 KLD	Fresh water	150 KLD
		Treated Water	8 KLD
Source	Indira Gandhi Nahar Project canal (Sagarmal Gopa branches) and Ground water with due permissions of CGWA.		
Permission	<ul style="list-style-type: none"> NOC for utilization of water from Indira Gandhi canal has been obtained from Indira Gandhi Nahar Department, Department of Water Resources, Govt of Rajasthan vide letter no F. 6(3) IGNB/2021 dated 04.03.2022. Application has been submitted to CGWA for ground water abstractions vide application No 21-4/17177/RJ/MIN/2022 dated 05.05.2022. 		

10. Presence of Environmentally Sensitive areas in the study area

Forest Land / Protected Area / Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter/Remarks
Forest Land	No	No forest land is involved in the ML area as per revenue record. NOC for the same has already been obtained from Deputy Conservator of Forest, Jodhpur Division vide letter dated 13.08.2021.
National Park	No	No National Park, Wild Life Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/
Wildlife Sanctuary &	No	

Forest		Elephant Reserve, Reserve/Protected Forest etc. within 10 km radius study area. NOC for the same along with authenticated location map has been obtained from DCF, Jaisalmer vide letter no F()DCF/Technical/2021-22/177 dated 12.01.2022
Eco Sensitive Zone (ESZ)	No	

Schedule-1 species	Yes/No	Details of Certificate/letter/Remarks
Schedule-I species	No	None

11. Green belt/plantation details:

Proposed area for green belt/plantation	At end of the mine life, greenbelt development/Plantation area will be done on 77.751 ha, out of which 6.0 ha along 7.5 m safety zone of ML boundary, 18.383 ha of safety zone along tar road & grazing land, 14.16 ha of backfilled area and 39.208 ha on top left over benches. 41.51 ha of backfilled area will be covered under Re - grassing.
Budget for green plant & plantation till the end of life of mine.	Rs. 1.97 Crore (Capital cost) and Rs 20.4 lakh (Recurring cost) have been earmarked for greenbelt, plantation & re-grassing till the end of life of mine
Additional information (if any)	Local and fruit bearing species will be planted after consultation with local forest officer and CPCB guidelines

Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	6.0 ha
50 m safety zone of nallah, roads, electric lines	18.383 ha
Additional information (if any)	Plantation on 14.16 ha of backfilled area and 39.208 ha of mined out benches. 41.51 ha of backfilled area will be covered under Re - grassing.

12. Baseline detail

Baseline Data (Air / Water / Noise / Soil / Ground water table/ others)	
Period of baseline data collection	October to December, 2021
Season (Summer / Pre-monsoon / Post-monsoon / Winter)	Post - Monsoon

M/s JK Cement Limited, Rajasthan

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13. Public Hearing (PH) Details

Advertisement for PH with date	02.03.2022
Date of PH	09.04.2022 at 11:00 AM
Venue	Rajiv Gandhi Sewa Kendra, Village: Khinya, Tehsil: Shri Mohangarh, District: Jaisalmer, Rajasthan
Chaired by	Chairperson Additional District Collector, Jaisalmer and Officers Regional Officer, Rajasthan State Pollution Control Board
Main issues raised during PH	Issues raised during public hearing were about Economic and Social development works, employment, environment pollution, health disease, education, infrastructure, Drinking water, RWH, agriculture development and plantation etc
Budget proposed for addressing issues raised during PH	Capital Cost Rs. 1.59 Crore Recurring Cost 0.27 Crore/Annum

14. Court case details:

Court Case	No court case pending against the project.
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15. Rehabilitation & Resettlement:

R & R details	<p>Total Mining lease area is 304 ha, out of which 165.25 ha is Govt. waste land, 43.03 ha is grazing and 95.72 ha is Private Land. There are total 45 families whose land comes in ML area. However, there is no habitation in ML area, hence no displacement is proposed.</p> <p>Company is purchasing private land by mutual agreement with land owner considering the provisions of Land Acquisition, Rehabilitation and Resettlement (LARR) Act, 2013. Proposed budget for land and R&R is given as below:</p> <ul style="list-style-type: none"> ▪ Total area to be purchase: 95.72 ha. ▪ Market Rate per ha: Rs 1.439 lacs ▪ Total R&R Budget with land cost Rs: 8.095 cr. ▪ Cost to the company per ha; Rs. 8.45 lacs
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16. Affidavit/Undertaking details:

Affidavit/Undertaking	Affidavit in accordance with the statutory requirement & judgment of Hon'ble Supreme Court dated 2 nd August 2017 in writ Petition (civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ores before grant of ToR/EC has been submitted to MoEFCC.
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17. Details of the Environmental management Plan (EMP)

S.No.	Particulars	Capital Cost (Rs. In Lacs)	Recurring Cost/Annum (Rs. In Lacs)
1	Two no of high-efficiency nozzle mounted water tanker for water sprinkling on haul roads.	70	5
2	Plantation on 7.5 m of periphery of mining lease area (6 ha) will be done in initial three year of plan period @ 1000 plants per ha (6000 nos.)	12	1.2
3	Plantation will be done till the end of mine life 71751 nos of plant in 71.751 ha area of backfilled, Bench slope and safety zone of road and grazing land	143.5	15
4	Re-grassing on 41.51 Ha area	41.51	4.2
5	03 nos. of Continuous Ambient Air Quality Monitoring Station at Mine office for the measurement of air quality for PM10, PM2.5, SO2, NOx and CO and real time data connectivity with CPCB/SRPCB server	150	12
6	Emission Monitoring of air quality, water quality and Noise by NABL accredited laboratory on quarterly basis. (Rs. 50000/- quarterly)	0	2
7	Peak Particle Velocity monitoring (Vibration monitoring)	3.5	0.5
8	Installation of 1 nos of piezometer along the periphery.	0.5	0.2
9	Installation of Water Sprinkler system	1.5	0.25
10	01 no of Rainwater Harvesting structure	10	2
11	Construction of road from Mine site to Village Road (2.5 KMS @ Rs. 1.5 cr/km)	375	12.5
12	Construction of garland drain (total length 1211 (1.5m (width) and 1.0m (depth)) and de-silting pit / settling pond for two nos. of dump (soil & subgrade) and Catch drain along the lease periphery 1.5m (width) and 1.0m (depth)	5	0.5
13	Construction of septic tank & soak pit	1	0
14	Roof top rainwater harvesting for mine office	2	0.2
15	4 nos. of Bag-filter for crusher system & dry-fog system	50	5
	Total	865.51	60.55

18. Details of project cost and employment:

Particulars	Budget
Capital Cost for Environment Protection	Rs. 8.66 Crore

M/s JK Cement Limited, Rajasthan

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Budget for addressing the Public Hearing issues	Rs. 1.59 Crore and recurring cost of 0.27 Crore
Total Cost for EMP	Rs. 10.25 Crore
Recurring Cost for EMP	Rs. 0.87 Crore per annum (including recurring cost of Public Hearing)
Project Cost	Rs. 75.20 Crore
Employment	181 Persons

19. The proposal was considered in the 52nd EAC meeting held during 14th to 15th June, 2022. The Committee after detailed deliberation **recommended** the proposal for Environmental Clearance for Limestone Mine - Khinya-II (A) Block of M/s JK Cement Limited in the Mining lease area of 304.0 ha with total excavation of 6.04 MTPA including 5.50 MTPA ROM (Cement grade 5.40 MTPA and SMS grade 0.10 MTPA); 0.28 MTPA Inter-burden and 0.26 MTPA Alluvial Sand/Top soil along with installation of one mobile crusher of 50 TPH and 1500 TPH Crushers with vibrating screen located at Village Khinya, Tehsil Shri Mohangarh (Mohangarh), District Jaisalmer, Rajasthan subject to the certain specific conditions in addition to the general conditions of non-coal mining projects.

20. The Ministry has examined the proposal in accordance with the Environmental Impact Assessment Notification, 2006 and further amendments thereto; and hereby accords the Environmental Clearance after accepting the recommendation of 52nd EAC meeting held during 14th to 15th June, 2022 for Environmental Clearance for Limestone Mine - Khinya-II (A) Block of M/s JK Cement Limited in the Mining lease area of 304.0 ha with total excavation of 6.04 MTPA including 5.50 MTPA ROM (Cement grade 5.40 MTPA and SMS grade 0.10 MTPA); 0.28 MTPA Inter-burden and 0.26 MTPA Alluvial Sand/Top soil along with installation of one mobile crusher of 50 TPH and 1500 TPH Crushers with vibrating screen located at Village Khinya, Tehsil Shri Mohangarh (Mohangarh), District Jaisalmer, Rajasthan subject to compliance of the following terms & conditions and the environmental safeguards mentioned below:

A. Specific conditions:

- i. The Project Proponent should install the Continuous Ambient Air Quality Monitoring Stations in such numbers as per the scientific study and in consultation with CPCB.
- ii. The mine lease area includes 95.72 ha of private land which belongs to 45 families. The project proponent has submitted a package of Rs 8.095 crore towards compensation for the agricultural land. The EAC quoting the policy of LARR of Government of India advised the Project Proponent to ensure that each land losing family buys alternate land with the compensation amount. The compensation may only be disbursed at the time when these families are making

an agreement for land purchase. The project proponent shall submit the progressive as well as final settlement details of R&R to IRO along with the compliance report every 6 months.

- iii. The Plantation in the public places which has been proposed by PP should include 50% fruit bearing trees which can become additional source of income for the local. The PP should ensure that the fruit trees are not planted along the roadside.
- iv. At no stage of the Mining operation the Grazing land will be diverted. A barrier between the mining zone and grazing land should be kept and boundary plantation to be taken up by the Project Proponent. Furthermore, the project proponent shall undertake development of the grazing land in consultation with villagers through re-grassing, drip irrigation and there should be an open access for all.
- v. The Grazing land also should be protected by 50 m safety zone, access to the grazing land and its maintenance will be also done by PP in consultation with villagers.
- vi. The Project Proponent should clearly indicate whether the existing road will be used for mining if minerals are found beneath. If mineral is found, a conceptual plan should be submitted by the PP clearly indicating the diversion of the existing road before initiating the Mining.
- vii. Since the progressive mining is proposed in 3rd year PP will have to follow the guidelines for protecting the commuters from the impacts of Drilling and Blasting. 50 m buffer zone on either side should be created to protect the commuters during the 1st five year plan.
- viii. The Project Proponent to install Continuous Ambient Air Quality Monitoring Stations near the impact zones. PP shall also undertake Water quality monitoring, Noise monitoring, Vibration monitoring at the lease boundary and in the nearby villages.
- ix. The Project Proponent should periodically monitor and maintain the health records of the mine workers digitally prior to mining operations, at the time of operation of mine and post mining operations. Regular surveillance on Silicosis shall be carried through regular occupational health check-up every year for mine workers. PP shall also organize medical camp for the benefit of the local people and also the monitor the health impacts due to mining activity.
- x. The Project Proponent shall continue to monitor the water quality of stream/nallah with specific reference to Langelier Saturation Index to assess the impact of calcium carbonate on water quality.
- xi. The Project Proponent should explore the possibility for shifting to clean energy using electric equipment for cleaner production options to reduce the emission generated from various machineries.



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- xii. The Project Proponent shall strictly follow the mitigation measures provided in MoEF&CC Office Memorandum No. Z-11013/57/2014-IA.II(M), dated 29th October, 2014.

B. Standard conditions for Mining of Mineral:

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 MoEF&CC'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

- 15) 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 climatologically 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.
- 16) 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



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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

- 17) 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.
- 18) 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.
- 19) 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.
- 20) 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.

- 21) 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.
- 22) 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.
- 23) 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.
- 24) 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

- 25) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
- 26) 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.

- 27) 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

- 28) 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.
- 29) 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.
- 30) 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

- 31) 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.
- 32) 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.
- 33) The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.
- 34) 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.
- 35) 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.
- 36) 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.
- 37) 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.
- 38) 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

- 39) 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.
- 40) 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

- 41) 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.
- 42) 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.

- 43) 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.
- 44) 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.
- 45) 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

- 46) 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.
- 47) 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,

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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.

- 48) 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).
- 49) 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.
- 50) 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.
- 51) 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.

- 52) 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)

- 53) 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.
- 54) 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

- 55) 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.
- 56) 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.
- 57) 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.
- 58) 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.
- 59) The concerned Regional Office of the MoEFCC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to



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the MoEFCC officer(s) by furnishing the requisite data / information / monitoring reports.

C. Standard EC Conditions for Mineral Beneficiation Plants:

I. Statutory compliance:

- 1) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- 2) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- 3) The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of schedule-I species in the study area).
- 4) The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- 5) The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- 6) The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

II. Air quality monitoring and preservation

- 7) The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories. Monitor fugitive emissions in the plant premises.

- 8) The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
- 9) The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each). covering upwind and downwind directions.
- 9) The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each). covering upwind and downwind directions.
- 10) The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- 11) Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- 12) The project proponent use leak proof trucks/dumpers carrying ore and other raw materials and cover them with tarpaulin.
- 13) Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- 14) Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

- 15) The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier



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specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

- 16) The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- 17) The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- 18) The project proponent shall provide the slime disposal facility with impervious lining and collection wells for seepage. The water collected from the slime pond shall be treated and recycled.
- 19) Adhere to 'Zero Liquid Discharge'
- 20) Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- 21) Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
- 22) The project proponent shall practice rainwater harvesting to maximum possible extent.
- 23) The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

- 24) Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- 25) The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

V. Energy Conservation measures

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- 26) Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- 27) Provide LED lights in their offices and residential areas.

VI. Waste management

- 28) The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
- 29) Kitchen waste shall be composted or converted to biogas for further use.(to be decided on case to case basis depending on type and size of plant)

VII. Green Belt and EMP

- 30) Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
- 31) The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

VIII. Public hearing and Human health issues

- 32) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- 33) The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- 34) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- 35) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.



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IX. Corporate Environment Responsibility

- 36) 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.
- 37) The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest | wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- 38) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- 39) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- 40) Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- 41) All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Mineral Beneficiation plants shall be implemented.

X. Miscellaneous

- 42) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost

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by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.

- 43) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- 44) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- 45) The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- 46) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- 47) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- 48) The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- 49) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- 50) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

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51) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

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


22. 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.

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

24. 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.

25. This issues with the approval of Competent Authority.

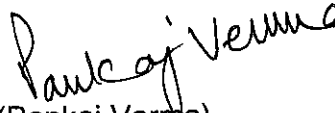
Yours faithfully,


(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, A-209&218, Aranya Bhawan, Mahatma Gandhi Road, Jhalana Institutional Area, Jaipur – 304 002, 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, Jaisalmer, Rajasthan
12. Guard File.
13. PARIVESH.


(Pankaj Verma)
Scientist E