



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

To,

The Manager - Environment
AMBUJA CEMENT LIMITED
228, Udyog Vihar, Phase-I,,Gurgaon,Haryana-122016

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/411671/2022 dated 26 Dec 2022. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|--|
| 1. EC Identification No. | EC23A001RJ123775 |
| 2. File No. | J-11015/422/2005-IA.II(M) |
| 3. Project Type | Expansion |
| 4. Category | A |
| 5. Project/Activity including Schedule No. | 1(a) Mining of minerals |
| 6. Name of Project | Expansion in Limestone Production Capacity from 0.5 Million TPA to 2.0 Million TPA, Top Soil 0.16 Million TPA, Waste (OB/IB) 0.58 Million TPA (Total Excavation 2.74 Million TPA) at Marwar Mundwa Limestone Mine (ML -II) (ML-03/1994) (ML Area – 635 ha) at Villages- Kherwad, Rupasar and Didyakalan ,Tehsil: Jayal and Nagaur, District- Nagaur, State: Rajasthan by M/s. Ambuja Cements Limited (Unit –Marwar Mundwa) |
| 7. Name of Company/Organization | AMBUJA CEMENT LIMITED |
| 8. Location of Project | Rajasthan |
| 9. TOR Date | N/A |

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

Date: 30/06/2023

(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.

This is a computer generated cover page.

F. No. J-11015/422/2005-IA. II(M)
Government of India
Ministry of Environment, Forest and Climate Change
Impact Assessment Division

3rd Floor, Vayu Wing,
Indira Paryavaran Bhavan,
Jor Bagh Road, Aliganj,
New Delhi-110 003

Dated: 30th June, 2023

To,

M/s. Ambuja Cements Limited,
Adani Corporate House, Shantigram,
Near Vaishnav Devi Circle, S.G. Highway,
Khodiyar, Ahmedabad-382421, Gujarat.


Subject: - Marwar Mundwa Limestone Mine (ML-II) of M/s. Ambuja Cements Limited for expansion in Limestone Production Capacity from 0.5 Million TPA to 2.0 Million TPA, Top Soil: 0.16 Million TPA, Waste (OB/IB): 0.58 Million TPA (Total Excavation 2.74 Million TPA) in the mine lease area of 635 ha, located at Villages - Kherwad, Rupasar and Didyakalan (Tehsil: Nagaur and Jayal), District- Nagaur, Rajasthan - Environmental Clearance (Expansion) regarding

Sir,

This has reference to the online proposal no. IA/RJ/MIN/411671/2022 of M/s. Ambuja Cements Limited for mining of Limestone in Marwar Mundwa Limestone Mine (ML-II) for expansion in Limestone Production Capacity from 0.5 Million TPA to 2.0 Million TPA, Top Soil: 0.16 Million TPA, Waste (OB/IB): 0.58 Million TPA (Total Excavation 2.74 Million TPA) in the mine lease area of 635 ha, located at Villages - Kherwad, Rupasar and Didyakalan (Tehsil: Nagaur and Jayal), District- Nagaur, Rajasthan.

2. The details of the project as ascertained from the document submitted by the Project Proponent and as revealed from the discussions held during the meeting is given as under:

- i. The mine lease area is located between Latitude: 27°05'24.332"N to 27°08'43.581"N and Longitude: 73°51'22.728"E to 73°53'02.144"E. The mine lease area falls under the Survey of India Toposheet No: 45 E/16 and falls in Seismic Zone-II.
- ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category "A" as the mine lease area is greater than 250 ha and appraised at the Central level.
- iii. Details of previous Environmental Clearance (EC):
 - a) Initially, the Project Proponent obtained Environmental Clearance (EC) vide EC letter no: J-11015/422/2005-IA.II(M) dated 18.01.2007 for production capacity of 0.5 MTPA of Limestone by opencast mechanised method involving total mine lease area of 635.0 Ha in favour of M/s Indo Nippon Special Cements Limited.



EC- M/s. Ambuja Cements Limited, Rajasthan

Page 1 of 26

- b) Then, the Project Proponent obtained Transfer of EC vide letter dated 28.03.2017 from M/s Indo Nippon Special Cements Limited to M/s. Ambuja Cements Limited (ML Area: 635 Ha, Capacity:0.50 MTPA).
- iv. Details of Terms of Reference (ToR):
The Project Proponent obtained Terms of Reference vide ToR Lr.No: IA-J-11015/25/2022-IA.II(M) dated 18.07.2022 for Marwar Mundwa Limestone Mine (ML-II) for expansion in Limestone Production Capacity from 0.5 Million TPA to 2.0 Million TPA, Top Soil: 0.16 Million TPA, Waste (OB/IB): 0.58 Million TPA (Total Excavation 2.74 Million TPA) in the mine lease area of 635 ha.
- v. Details of Mine Lease:
- a) The Project Proponent submitted that initially mining lease was granted in favor of M/s. Indo Nippon Special Cements Ltd. vide letter no. PO 3/31/Khan/Gr-1/92 dated 11th June 1998. Mining lease deed was executed on 27.04.2007 and registered on 05.05.2007 for period of 20 years valid upto 04.05.2027 in favor of M/s. Indo Nippon Special Cements Ltd.
- b) Then, the mining lease was transferred in the name of M/s. Ambuja Cement Limited vide letter no. P12(10)KHAN/GP-2/03 dated 24.08.2009 and the transferred lease was registered on 18.10.2010.
- c) Thereafter, the Office of the Mining Engineer, Department of Mines & Geology, Nagaur vide Letter no ME/Nagaur/CC-1/Major/ML 03/94/599, dated 24.02.2015 have extended the validity of the mine lease period for the period upto 04.05.2057 as per Section 8A (5) of MMDR Act 2015. The supplementary deed was executed on 26.09.2017 for extension of lease validity upto 04.05.2057.

vi. Land Use/Land Cover of the Mine Lease Area:

Private Agriculture land	316.42 Ha
Government land	318.58 ha
Total Mining lease area (MLA)	635 ha
Private land for crusher, workshop & other infrastructure outside the MLA	The crusher, workshop & other infrastructure of adjacent mine ML-I is being/will be used. No private land has been acquired for infrastructure

vii. Details of Mining Plan: -

Review of Mining Plan along with Progressive Mine Closure Plan approved by Indian Bureau of Mines (IBM)	Letter No.	584(4)(3)(1881)/2021 RCOM-AJM
	Date	12.11.2021
	Mine Lease area	635 Ha
	Mineral	Limestone
	Validity	2022-23 to 2026-27
Mining Parameters	Quantitative Description	
Method of Mining	Fully Mechanized Opencast Mining Method	
Total Geological Resources	158.87 million Tonnes	
Mineable Reserves	49.29 million Tonnes	
Life of mine	As per the reserves on 01.09.2021, the life of mine is 26 years as per Approved Mining Plan and life of the mine from the date of execution of the lease i.e. 27.04.2007 is 40 years. <i>Based on the detailed exploration, life of mine may</i>	

	<i>further increase due to addition in mineralized area and mineable reserves.</i>			
Bench Height	6.0 m (maximum)			
Working Bench Width	12.0 m (minimum)			
No. of Mine benches	8 no.s			
Present working depth	324 m AMSL (4 m bgl)			
Ultimate working depth	280 m AMSL (48 m bgl)			
Individual bench slope	75°			
Overall pit slope	45°			
Drilling/Blasting	S. No.	Particular	Units	Details
	1	Dia of Hole	mm	115
	2	Burden	Mtr.	3.0
	3	Spacing	Mtr.	3.5
	4	Depth of the Hole	Mtr.	7
	5	Powder Factor	Kg/t	7
	6	Slurry Explosives		Aluminium Gelled Slurry Explosives
RoM output size	The crusher of adjacent mine ML-I is being/will be used. The ROM output size of the same is 65-75 mm			
Transportation details	The Limestone mined out from this mine is transported through the dumper of capacity 50 tons via haul road to the crusher of 2000 TPH which has been installed in the adjacent mine for crushing. The crushed limestone from crushers directly dispatched to its existing cement plant (~3.0 km in SW direction from ML-I) via overland belt conveyor of length ~3.5 Km.			
Top Soil	The Project Proponent reported that from the inception of mine to till the life of mine, 0.96 million tonnes of soil will be generated			
Waste (OB/IB)	The Project Proponent reported that during the plan period about 0.44 million tonnes of waste will be generated and it will be dumped over an area of 1.77 ha area at waste dump with proposed dump height of 8m.			
Water Table Level	Pre Monsoon: 218-254 m AMSL (83m-119m bgl) Post Monsoon: 218-256 m AMSL (81m-119m bgl) PP reported that there will be no groundwater intersection.			
Additional Information	As recommended by EAC-NCM in its 9 th Meeting held during 17-18 January 2023, an ADS was raised by the Ministry asking PP to submit the revised approved mining plan. The PP has submitted the Approval of Modification of Review of Mining Plan along-with Progressive Mine Closure Plan in respect of Marwar Mundwa-II Mining lease for Limestone mineral over an area of 635 ha approved by IBM, Ajmer vide letter number- No. MCDR-MPC0LST/8/2023-AJM-IBM_RO_AJM dated 13.06.2023. Vide aforesaid			

	mining plan as recommended by EAC-NCM, Bench Height has been increased to 12 m.
--	---

viii. Water requirement:

Total water requirement (55.0 KLD)	Existing	Additional	Particulars	Existing	Additional
			Dust Suppression	10.0 KLD	30.0 KLD
	16.0 KLD	39.0 KLD	Greenbelt Development	6.0 KLD	4.0 KLD
	Fresh water: 55.0 KLD (Treated water from Matasukh Lignite Mines)		Domestic Use	-	5.0 KLD
			Total	16.0 KLD	39.0 KLD
Source	Matasukh Lignite Mines of RSMM Ltd. after treatment. It is having a pipeline of 36 Km.				
Permission	The agreement has been made between M/s. Ambuja Cements Limited and M/s. Rajasthan State Mines and Minerals Limited on 06.02.2019				
Additional information (if any)	PP submitted that there is no abstraction of Groundwater and Surface Water and as on date, no water has been collected in the mine pit.				

ix. Nearest village / town/ highway/railway station / water bodies/monuments:

Particulars	Particular's Name	Distance & Direction
Nearest Village	Habitation of Rupasar	i. Habitation of Village Roopasar ~50 m in SW direction from ML boundary (~1.25 km from UPL)
	Habitation of Kherwad	ii. Habitation of Village Kherwad ~250 m in NE direction from ML boundary (~2.1 Km from UPL)
Nearest Town / City	Mundwa Town	~4 km, SW
Nearest State/National Highway	NH-58 SH-19 SH-39	~3.5 km, West ~3.0 km, North ~5.5 km, SW
Nearest Railway Station	Marwar Mundwa Railway Station	~5.5 km, SW
Nearest water bodies	A nallah (dry/seasonal) originate in the NNE part of the lease and merges with a pond which is inside the lease boundary.	
	Punadhi Nadi	~2.5 Km in NNW
	Pinsariya Nadi	~8.5 km in NE
	Alolap nadi	~8.5 Km in ENE
	Kiyar Nadi	~9.5 Km in SSW
	Denda Nadi	~9.5 Km in SSE
	Deediya Kalan Pond	~3.5 Km in ENE
	Village- Rol Pond	~5.0 Km in NE
	Village- Inana Pond	~4.5 km in WNW
	Bhadana Pond	~4.3 km in South
	Village- Rupasar Pond	~350 m in SSW
	In addition to this small water ponds (Rupali Talav, Vishnaadi Naadi, Lakholav Talav, Pokhandi Talav, Gyan	

	Talav, Mota Talav, Kansolav Talav, Kamunda Talav, Jajra Talav, Asavari Naadi, Kalinda Talav, Inana water pond, Inana Naadi, Gotan Talav, Jangid Naadi, Sati Naadi, Dhadhani Talav etc) are also exists within study area, in which Rupali Talav is the nearest to Mine site (~400 m from UPL East direction).
--	---

x. 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	The Project Proponent reported that there is no forest land involved within the mine lease area. No National Park and Wildlife Sanctuary in the study area of 10 km radius. In support of this, letter has been obtained from DCF vide letter no. F() Survey/DFO/2022-23/4869 dated 18.08.2022
National Park	No	
Wildlife Sanctuary & Forest	No	
Eco Sensitive Zone (ESZ)	No	
Schedule-I species	Yes	As per authenticated list of Flora & Fauna by the Forest Dept and field study report, two schedule-I species such as Indian Peafowl (<i>Pavo cristatus</i>) and Monitor Lizard (<i>Varanus bengalensis</i>) are found within 10 km radius of the study area.
Wildlife Conservation Plan	Yes	The Conservation Plan has been approved by CCF vide letter dated 19.12.2022. For the protection of wildlife budget of Rs.469.4 Lakhs (ML I, ML II & Cement Plant) have been proposed for their protection and detailed mitigation measures have been covered in the conservation Plan.

xi. Green belt/plantation details:

Proposed area for green belt/ plantation	63.70 ha
Budget for green plant & plantation till the end of life of mine.	Rs 555.51 Lacs
Budget for nursery	--
7.5 m barrier & non-mineralized zone	Total area for greenbelt development is 11.0 ha which will be covered along 7.5m lease periphery. An area of 40 ha to be covered under plantation on un worked (virgin) area, out of which 12.09 ha to be covered on the safety barrier along the roads.
50 m safety zone of nallah, roads, electric lines	12.09 ha to be covered on the safety barrier along the roads.
500 m safety zones of nearest habitation villages	-
Additional information (if any)	Total 63.7 Ha will be covered under greenbelt/plantation including 12.7 Ha area under plantation on the backfilled area.

xii. Baseline details:

Baseline Data (Air / Water / Noise / Soil / Ground water table/ others)	
Period of baseline data collection	3 months (Dec. 2021 to Feb 2022)

Season (Summer / Pre-monsoon / Post-monsoon / Winter)	Winter Season		
Predominant Wind direction (From)	W & NW		
Ambient Air Quality (11 locations)	PP reported that the concentrations of PM10 ranged from 59.2-85.6 µg/m ³ , PM2.5: 28.6-47.8 µg/m ³ , SO ₂ : 5.9-15.2 µg/m ³ and NO _x : 12.8-28.9 µg/m ³ .		
Noise level (11 locations)	Day Time: 53.5 – 64.2 dB (A) Night Time: 42.5 – 51.5 dB (A)		
Water Quality	Parameters	Surface water (9 locations)	Ground water (10 locations)
	pH at 25°C	7.2 – 8.09	7.69-8.16
	Total Dissolved Solids, mg/l	79-284	1998-3542
	Chloride as Cl ⁻ , mg/l	12.52-42.32	694.8-1502.4
	Total Hardness	50.36-129.87	356.4-865.4
	TSS	5.6-14.7	BDL (DL 1.0)
	DO, mg/l	6.5-6.9	-
	BOD, mg/l	6.5-9.2	-
	COD, mg/l	18-27	-
	Fluoride as F, mg/l	0.14-0.77	1.19-1.46
Soil quality (10 locations)	Parameters	Core Zone	Buffer Zone
	pH	7.91	7.78-8.23
	Electrical Conductivity (mS/cm)	1.16	0.86-1.17
	Organic Carbon (%)	0.16	0.19-0.49
	Available Nitrogen as N (Kg/Ha)	155.22	159.93-237.03
	Available Phosphorus (Kg/Ha)	50.50	32.85-52.71
	Sodium (mg/kg)	145.32	142.15-188.56
	Potassium (Kg/Ha)	481.7	407.84-523.24
Traffic Study	The Project Proponent submitted that the total Excavated limestone is 6667.6 TPD (Peak production will be 8001.12 TPD) will be transported to the crusher located in the adjoining lease ML-I via dumpers through haul roads. The crushed limestone is transported to the Cement Plant (~2.5 km, SW from ML-I) via overland belt conveyor of length ~3.5 km. No public road is being used for the purpose of transportation.		

xiii. Public Hearing (PH) Details:

Advertisement for PH with date	National Level/Local Level
--------------------------------	----------------------------

	i. Dainik Navajyoti dated 29.08.2022 ii. Dainik Bhaskar dated 29.08.2022 iii. Financial Express dated 30.08.2022
Date of PH	30.09.2022 at 11:00 AM
Venue	Near HEMM workshop, at Mine Lease area ML II of Project Site Village – Inana, Tehsil – Mundwa, District – Nagaur.
Chaired by	Mr. Mohanlal Khatnawaliya (ADM), Mr. Sunil Pawar (SDO/SDM) Mrs. Savita Choudhary (RO, Nagaur),
Main issues raised during PH	Infra Development, Education, Drinking Water facilities, Skill Development, Employment, Healthcare facilities etc.
Budget proposed for addressing issues raised during PH	Company has earmarked Rs. 1045.32 Lakhs as cost (Rs 300 Lakhs exclusively + Rs 745.32 Lakhs INR through CSR activities) & Rs. 15.3 Lakhs/Annum as recurring cost for development of nearby areas under various heads like Infra Development, Education, Drinking Water facilities, Skill Development, Employment based training

xiv. CTE/CTO, CCR and Past Production details:

Consent to Establish (CTE)	Consent to Establish issued by the Rajasthan State Pollution Control Board vide Order No 2019-2020/Mines/10004 dated 17/01/2020 for a period from 20/06/2017 to 31/05/2022, or commencement of production whichever is earlier.
Consent to Operate (CTO)	Consent to Operate issued by the Rajasthan State Pollution Control Board vide Order No 2020-2021/Mines/10175 dated 15/09/2020 for a production capacity of 0.50 MTPA of Limestone and this consent is valid for a period from 15/09/2020 to 31/08/2025.
Certified Compliance Report	Certified Compliance Report issued by the Integrated Regional Office, Jaipur vide Lr.No: File No. IV/ENVR/MINE/-414/636/2008 dated 03.03.2022. Site Inspection was conducted on 09.02.2022.
Certified Past Production	Past production details has been authenticated by Asst. Mining engineer vide letter No.-KHA/Nagaur/ No./MLNo.-3/1994/2022-23/ 1457 dated 05.05.2022 from the inception of mine to 2022-23 (20.12.2022).

xv. Rehabilitation & Resettlement:

R & R details	The Project Proponent submitted that as on date, all Khatedari land of mining lease area (635 ha) has been acquired by Rajasthan State Industrial Development & Investment Corporation Ltd. (RIICO), Jaipur under land acquisition act, 1894.
---------------	---

xvi. Court case details:

Court Case	The Project Proponent submitted that there is no court case pending against the project and/or land in which the project is proposed to be set up.
------------	--

xvii. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	PP submitted the Affidavit in a non-judicial stamp paper of Rs 100 bearing no. BK 047807 dated 21.12.2022 stating that the company will comply with all 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 & Ors.
Project Proponent submitted an Undertaking vide Letter dated 24.12.2022	The conditions laid down in Terms of Reference (ToR) issued by the Ministry of Environment, Forest and Climate Change vide IA-J-11015/25/2022-IA-II(NCM) dated 18.07.2022 in accordance to the EIA Notification, 2006 and amended as on date have been complied with and the data submitted and the information presented in this report are factually correct.
Consultant submitted an Undertaking dated 26.12.2022	The Consultant submitted an undertaking to the effect that the standard ToRs prescribed by MoEFCC, New Delhi uploaded on Parivesh have been complied as per data/details provided by project proponent & as per Modification in Review of Mining Plan approved by IBM and the data submitted are factually correct.
Plagiarism Certificate checked on 24.12.2022	The Head of the Accredited Consultant Organization/ Authorized person certified that this EIA Report has been evaluated by using online software viz. Plagiarism Checker X. The report produced has been analyzed by the system and based on it, I certify that the EIA Report produce in accordance with good scientific practice.

xviii. Details of the Environment Management Plan (EMP):

Sl. No.	Activities	Proposed Cost	
		Capital (Rs. In Crores)	Recurring (Rs. lakh/annum)
1.	Budget for Mitigative Measures & Monitoring	5.76	17.8
2.	Budget for addressing issues of Public Hearing	10.45	15.3
3.	Budget for Conservation Plan (MLI, ML II & Cement Plant)	4.69	-
	Total	20.90	33.1

xix. Details of project cost and employment:

Particulars	Budget (Rs. In Crore)
Total Cost for EMP (Capital Cost of EMP + capital cost of Public hearing)	Rs. 20.90 Crores (EMP Rs. 5.76 Crores + PH Rs. 10.45 Crores + WLCP Rs. 4.69 Crores)
Project Cost	Rs. 23.69 Crores
Employment	46 Persons

3. Observation and Recommendation of the Committee:-


The EAC noted that the instant proposal is for expansion in production capacity of Limestone from 0.5 MTPA to 2.0 MTPA in the mine lease area of 635 ha. The Project Proponent/Consultant presented the KML file to indicate the surface features in the study area. The Project Proponent informed the EAC that because delay in commissioning of

cement plant, mining operations delayed. There is another mine located adjacent to the mine lease area is ML-I. The Limestone mined out from this instant mine is transported through the dumper of capacity 50 tons via haul road to the crusher of 2000 TPH already installed in the adjacent mine for crushing. The crushed limestone from crushers is directly dispatched to its existing cement plant (~3.0 km, SW direction from ML-I) via overland belt conveyor of length ~3.5 km. The Project Proponent also informed the EAC that there are two village roads passing within the mine lease area. Roads will not be disturbed due to mining activities. A 50 m safety barrier has been left along on both sides of the road and the plantation is being undertaken. Further the Project Proponent informed the EAC that there are no Reserve/Protected Forest, National Park, Wild Life Sanctuaries, Biosphere Reserves, and Wildlife corridors, Tiger/Elephant Reserves, Aravalli within 10 km radius of the study area.

The Project Proponent informed the EAC that the existing manpower is 17 no.s and additionally 29 no.s of manpower are proposed for this expansion proposal. The EAC asked about the height of the mine bench. The Project Proponent informed the EAC that the height of the mine bench is 6m and there is a proposal to increase to height of the mine bench to 12m. The EAC asked the Project Proponent to modify the mining plan and approach DGMS to seek necessary permission for the same. The Project Proponent informed the EAC that the total excavated area will be 81.68 ha, out of which 68.98 ha will be converted into water reservoir and an area of 12.7ha will be backfilled. Plantation will be developed over an area of 63.7 ha and an area of 498.76 ha will remain undisturbed. Further, the Project Proponent informed that the cumulative air modelling has been carried out by considering the adjacent mine and at the mine site the resultant value of PM₁₀ found to be 86.05 µg/m³, PM_{2.5}: 43.76 µg/m³, NO₂: 27.38 µg/m³ and SO_x: 15.61 µg/m³. PP also informed that there will be no groundwater intersection. About 18 million tonnes of waste will be generated which will be backfilled over an area of 12.7 ha and it will be rehabilitated with the plantation. About 0.96 million tonnes of top soil will be generated and it will be utilized for development of plantation and green belt.

The Project Proponent informed the EAC that the budget of Rs. 10.45 Cr has been allocated to address the issues of the concerns of the public hearing over a period of 3 years. The Conservation Plan has been approved by CCF vide letter dated 19.12.2022 and a budget of Rs.469.4 Lakhs (ML I, ML II & Cement Plant) have been earmarked for their protection of wildlife and approval of Chief Wildlife Warden is awaited. The EAC asked the Project Proponent whether any court case pending against the project. The Project Proponent informed the EAC that there is no court case pending against the project. The Project Proponent also informed the EAC that the Certified Compliance Report was issued by the Integrated Regional Office, Jaipur vide Lr. dated 03.03.2022. Site Inspection was conducted on 09.02.2022 and no non-compliances reported.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC in its 9th EAC (Non-Coal Mining) meeting held during 17-18 January, 2023 **recommended** the proposal under the provisions of EIA Notification, 2006 for grant of Environmental Clearance (EC) to M/s. Ambuja Cements Limited for mining of Limestone in Marwar Mundwa Limestone Mine (ML-II) for expansion in Limestone Production Capacity from 0.5 Million TPA to 2.0 Million TPA, Top Soil: 0.16 Million TPA, Waste (OB/IB): 0.58

 EC- M/s. Ambuja Cements Limited, Rajasthan

Page 9 of 26


Million TPA (Total Excavation 2.74 Million TPA) in the mine lease area of 635 ha, located at Villages - Kherwad, Rupasar and Didyakalan (Tehsil: Nagaur and Jayal), District- Nagaur, Rajasthan subject to the specific conditions in addition to the standard EC conditions applicable for non-coal mining projects.

4. The matter was examined in the EAC in accordance with the Environmental Impact Assessment Notification, 2006 and its further amendments thereto and the undersigned is directed to say that the Ministry of Environment Forest & Climate Change after accepting the recommendation of EAC during its 9th EAC (Non-Coal Mining) meeting held during 17-18 January, 2023 hereby accords Environmental Clearance (EC) to M/s. Ambuja Cements Limited for mining of Limestone in Marwar Mundwa Limestone Mine (ML-II) for expansion in Limestone Production Capacity from 0.5 Million TPA to 2.0 Million TPA, Top Soil: 0.16 Million TPA, Waste (OB/IB): 0.58 Million TPA (Total Excavation 2.74 Million TPA) in the mine lease area of 635 ha, located at Villages - Kherwad, Rupasar and Didyakalan (Tehsil: Nagaur and Jayal), District- Nagaur, Rajasthan subject to compliance of the terms & conditions and the environmental safeguards mentioned below:-

A. SPECIFIC CONDITIONS

- i. This Environmental Clearance (EC) will be valid upto 26 years as the life of the mine is 26 years i.e., upto 26.04.2047.
- ii. The Project Proponent needs to submit the permission from DGMS to the Ministry's IRO before start of mining operations for this expansion EC.
- iii. The Project Proponent shall not carry out the secondary blasting.
- iv. The natural water bodies and or streams which are flowing in and 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 well located in village should be incorporated to ascertain the impact of mining over ground water table.
- v. The Project Proponent shall monitor the water quality in the impact zone such as water reservoir, nalah, canal with specific reference to the parameter Langelier Saturation Index to denote the impact of calcium carbonates on water bodies. The Project Proponent shall ensure that at any case the quality of the water bodies shall not be contaminated due to mining activity.
- vi. The real time data generated at Continuous Ambient Air Quality Monitoring Stations (CAAQMS) should be displayed digitally at entry and exit gate of mine lease area for public display and shall be linked to server of CPCB/SPCB. The Project Proponent needs to monitor the air quality, noise level, water quality, water level and ground vibration during drilling and blasting at the edge of the mine, near the village, crusher and at other sensitive receptors and such collected data shall be submitted quarterly to the Ministry's Integrated Regional Office.

- vii. The Project Proponent needs to submit the proof of submission of funds for Wildlife Conservation plan to be approved and its initiation/commencement by Forest Department to IRO/Ministry. The Project Proponent should follow-up the status of implementation on Wildlife Conservation Plan from the Forest Officials and the same shall be submitted to the Ministry's Integrated Regional Office in the six monthly compliance report.
- viii. The Project Proponent needs to install the cameras all around the mine lease area to identify and to ensure the movement of animals.
- ix. The Project Proponent needs to install the permanent water sprinklers instead of using water tankers along the haul road and the approach road. Further, 10 nos. of fog canon/mist sprayer of atleast 40 m throw shall be installed at various locations in the mine area.
- x. The Project Proponent shall explore the possibility of using atleast 20% of electric vehicles/LNG/CNG instead of diesel operation within three years from the start of mining operations.
- xi. The Project Proponent shall ensure the survival rate of 95% for planting the peripheral, safety barrier plantation and gap plantation. The project Proponent should plant quality sapling of appropriate height of native and fruit bearing species. In case of tall transplants (seedlings) the seedlings should have proper trained root stock with root biomass commensurate with seedling height to ensure good growth after out planting. The Project Proponent shall implement the practice of drip irrigation for plantation. Plantation shall be undertaken in consultation with the State Forest Department. The entire peripheral plantation safety barrier plantation and gap plantation needs to be completed within 3 years from the start of mining operations.
- xii. The Project Proponent shall make the actual count on the saplings planted and its survival rate and in case of failure of achievement of 95% survival rate, action plan for achieving the target survival rate shall be submitted to the Ministry's Integrated Regional Office.
- xiii. The Project Proponent shall ensure that the protection and management of the water bodies should include provision of utilizing available water to the villagers by installing solar pumps as well as PP shall explore the possibility for installing floating solar panels for generation of electricity and distribution of power supply to the villagers.
- xiv. The Project Proponent should adopt the proper mitigation measures as proposed under EMP with budgetary provision of Rs. 5.76 Crores. The adoption of mitigation measures and monitoring of the same as proposed in the EMP shall be done under the supervision of the qualified environmental personnel. The implementation status of the same shall be submitted to the Ministry's Integrated Regional Office.
- xv. The Project Proponent shall conduct third party audit of compliance of EC condition at an interval one year and its report shall be submitted to IRO, MoEF&CC.


EC-M/s. Ambuja Cements Limited, Rajasthan

- xvi. The Project Proponent should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground). A dedicated team to oversee environment management shall be setup at site which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis instead of engaging environment monitoring laboratories/consultants. Any non-compliance or infringement should be reported to the concerned authority.
- xvii. The budget of Rs. 10.45 Crores to address the concerns raised by the public in the public hearing to be completed within 3 years from the date of start of mining operations. PP shall comply with all action plans made for public hearing concerns and make regular maintenance and record the progressive activity outcomes. The Project proponent shall ensure that the activities proposed under the public hearing is different from the CSR activities.
- xviii. The Project Proponent shall also organize employment-based apprenticeship/ internship training program every year with appropriate stipend for the youth and other programs to enhance the skill of the local people. The data should be maintained for the training imparted to the persons and the outcome of the training, for the assessment of the training program should be analyzed periodically and improved accordingly. The Project Proponent shall give preference to the local people for employment.
- xix. The Project Proponent needs to provide the RO drinking water supply to the local people.
- xx. The Project Proponent shall conduct the awareness programs to local people on modern agriculture practices, organic farming and other related activities in consultation with experts from Department of Agriculture, Krishi Vigyan Kendra (KAK) etc.,
- xxi. The Project Proponent needs to obtain the star rating as per the guidelines of Ministry of Mines within 3 years of commencement of mining operations.
- xxii. 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.
- xxiii. The mining lease holders shall, after ceasing mining operations, undertake regrassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The implementation report of the above said condition shall be submitted to the Ministry's Integrated Regional Office.

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) The Project Proponent shall follow the mitigation measures provided in MoEFCC's Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- 5) A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
- 6) State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
- 7) The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.
- 8) The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred. PP needs to apply for transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

II. Air quality monitoring and preservation



EC- M/s. Ambuja Cements Limited, Rajasthan

Page 13 of 26

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

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

III. Water quality monitoring and preservation

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

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

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

year viz. pre- monsoon (April May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

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

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

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

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

IV. Noise and vibration monitoring and prevention

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

19) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.

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

be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

V. Mining plan

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

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

VI. Land reclamation

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

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

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

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

VII. Transportation

27) No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers. [If applicable in case of road transport].

28) The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

VIII. Green Belt

29) The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.

30) The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community

areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.

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

IX. Public hearing and human health issues

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

X. Corporate Environment Responsibility (CER)

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

XI. Miscellaneous

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

35) The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.

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

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

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

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

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

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

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 S02 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 S02 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 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

- 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.

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 I 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.

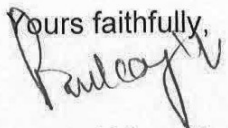
- 41) All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Mineral Beneficiation plants shall be implemented.

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 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, NO_x (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.



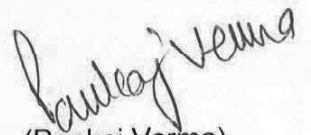
- 50) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- 51) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
5. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court and any other Court of Law relating to the subject matter.
6. 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.
7. This issues with the approval of Competent Authority.

Pours faithfully,

(Pankaj Verma)
Scientist 'E'

Copy to:

- i. **The Secretary**, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi-110 001.
- ii. **The Secretary**, Department of Mines & Geology, Government of Rajasthan, Secretariat, Jaipur.
- iii. **The Secretary**, Department of Environment, Government of Rajasthan, Secretariat, Jaipur.
- iv. **The Secretary**, Department of Forests, Government of Rajasthan, Secretariat, Jaipur.
- v. **The Chief Wildlife Warden**, Government of Rajasthan, Jaipur.
- vi. **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.
- vii. **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110 032.
- viii. **The Member Secretary**, Central Ground Water Authority, 18/11, Jam Nagar House, Man Singh Road, New Delhi-110 011.
- ix. **The Chairman**, Rajasthan State Pollution Control Board, 4, Jhalana Institutional Area Jhalana Doongri, Jaipur- 302 004, Rajasthan.

- x. **The Controller General**, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
- xi. **The District Collector**, Nagaur District, Government of Rajasthan.
- xii. **Guard File.**
- xiii. **PARIVESH Portal.**


(Pankaj Verma)
Scientist 'E'

Signature Not Verified
Digitally signed by Pankaj Verma
Scientist E
Date: 6/30/2023 4:55:47 PM