सत्यमेव जयते

File No.: EC/SEIAA/2024-25/3454/2024
Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment Authority(SEIAA), JHARKHAND)
****

Dated **12/02/2025**

To,

SHAILENDRA KUMAR MEHTA
MAA JAGDAMBA STONE WORKS
MAUZA-JUGRA, PS- JUGRA, HAZARIBAGH, JHARKHAND, 825302
maajagdambastoneworks1@gmail.com

Subject: Grant of prior Environmental Clearance (EC) to the proposed Mining Project under the provisions of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application submitted to SEIAA vide proposal number SIA/JH/MIN/506404/2025 dated 16/01/2025 for grant of prior Environmental Clearance (EC) to the project under the provision of the EIA Notification 2006-and as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC25C0108JH5168858N
(ii) File No.	EC/SEIAA/2024-25/3454/2024
(iii) Clearance Type	Mining EC Under 5 Ha
(iv) Category	B2
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vii) Name of Project	Jugra Stone Mine , Mauza- Jugra, P.O. & P.S.- Barkagaon, Thana No.-54, District- Hazaribagh, State- Jharkhand , Area- 4.26 Acre / 1.72 Ha.
(ix) Location of Project (District, State)	HAZARIBAGH, JHARKHAND
(x) Issuing Authority	SEIAA
(xii) Applicability of General Conditions	No

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-2(Part A, B and C)/ EIA & EMP Reports were submitted to the SEIAA for an appraisal by the SEIAA under the provision of EIA notification 2006 and its subsequent amendments.

4. The above-mentioned proposal has been considered by SEIAA in the meeting held on 28/01/2025. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed from the

PARIVESH portal by scanning the QR Code above. Brief description of the project is as under:

5. Details of the minerals to be mined along with production capacity and the brief on the salient features of the project as submitted by the project proponent in Form 1 (Part A and B) in the reports and as presented during SEIAA are annexed to this EC as Annexure (1).

6. The SEIAA, in its meeting held on 28/01/2025, based on information submitted viz: Form 1 (Part A, B and C), EIA/EMP report etc & clarifications provided by the project proponent and after detailed deliberations on all technical aspects and public hearing issues and compliance thereto furnished by the Project Proponent, recommended the proposal for grant of Environment Clearance under the provision of EIA Notification, 2006 and as amended thereof subject to stipulation of Specific and Standard EC conditions as detailed in the point below.

7. The SEIAA has examined the proposal in accordance with the provisions contained in the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and based on the recommendations of the SEIAA hereby accords Environment Clearance for the instant proposal to M/s. SHAILENDRA KUMAR MEHTA under the provisions of EIA Notification, 2006 and as amended thereof subject to compliance of the Specific and Standard EC conditions as given in Annexure (2)

8. The Ministry reserves the right to stipulate additional conditions, if found necessary.

9. The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.

10. The PP is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.

11. Validity of EC is upto 16/01/2025 from which the prior environmental clearance is granted by the regulatory authority.

12. General Instructions:

    1. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of SEIAA website where it is displayed.

    2. 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 must display the same for 30 days from the date of receipt.

    3. The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing 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.

    4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.

    5. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

    6. The Regional Office of this SEIAAshall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

7. Any appeal against this EC 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.

13. This issue with an approval of the Competent Authority.

Copy To

N/A

Annexure 1

Standard EC Conditions for (Mining of minerals)

1. Statutory Compliance

S. No	EC Conditions
1.1	The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.
1.2	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.
1.3	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.
1.4	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.
1.5	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.
1.6	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.
1.7	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).
1.8	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
1.9	This Environmental Clearance (EC) is subject to orders/ judgment of Honble Supreme Court of India, Honble High Court, Honble NGT and any other Court of Law, Common Cause Conditions as

S. No	EC Conditions
	may be applicable.
1.10	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.

Additional EC Conditions

N/A

Annexure 2

Details of the Project

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th></tr>
<tr><td>a.</td><td>Details of the Project</td><td>Jugra Stone Mine , Mauza- Jugra, P.O. & P.S.- Barkagaon, Thana No.-54, District- Hazaribagh, State- Jharkhand , Area- 4.26 Acre / 1.72 Ha.</td></tr>
<tr><td>b.</td><td>Latitude and Longitude of the project site</td><td>23.91620810971097,85.24601404646248
23.91769888515257,85.24811716392641</td></tr>
<tr><td>c.</td><td>Land Requirement (in Ha) of the project or activity</td><td><table><tr><th>Nature of Land involved</th><th>Area in Ha</th></tr><tr><td>Non-Forest Land (A)</td><td>0</td></tr><tr><td>Forest Land (B)</td><td></td></tr><tr><td>Total Land (A+B)</td><td>1.72</td></tr></table></td></tr>
<tr><td>d.</td><td>Date of Public Consultation</td><td>Public consultation for the project was held on</td></tr>
<tr><td>e.</td><td>Rehabilitation and Resettlement (R&R) involvement</td><td>NO</td></tr>
<tr><td>f.</td><td>Project Cost (in lacs)</td><td>42</td></tr>
<tr><td>g.</td><td>EMP Cost (in lacs)</td><td></td></tr>
<tr><td>h.</td><td>Employment Details</td><td></td></tr>
</table>

Details of Minerals Products & By-products

Name of the Mineral to be mined	Classification of mineral [Major/Minor]	Production capacity in MTPA	Remarks
STONE	Minor	0.12	NA

State Level Environment Impact Assessment Authority, Jharkhand
Nursery Complex, Near Dhurwa Bus Stand, P.O+P.S-Dhurwa, Ranchi, Jharkhand-834 004
E-mail: mseiaa.jhk@gmail.com / website: www.jseiaa.in

Letter No.- **EC/SEIAA/2024-25/3454/2024/** Ranchi, Date :

To: **M/s Maa Jagdamba Stone Works**
Partners : 1. Shri Shailendra Kumar Mehta 2. Shri Baleshwar Saw,
Village : Jugra, P.O. : Chepakala, Thana : Barkagaon,
District : Hazaribagh, Jharkhand.

Sub: Environmental Clearance for the project **"Jugra Stone Mine of M/s Maa Jagdamba Stone Works (Partners : Shri Shailendra Kumar Mehta & Shri Baleshwar Saw) at Village : Jugra, Thana : Barkagaon, District : Hazaribagh, Jharkhand (1.72 Ha)" (Proposal No. : SIA/JH/MIN/506404/2024) – regarding.**

Ref: Your application no. 11/2024-25, dated – 16.01.2025.

It is in reference to **"Jugra Stone Mine of M/s Maa Jagdamba Stone Works (Partners : Shri Shailendra Kumar Mehta & Shri Baleshwar Saw) at Village : Jugra, Thana : Barkagaon, District : Hazaribagh, Jharkhand (1.72 Ha)"** submitted by you for seeking prior Environmental Clearances (EC).

Project Sector: 1(a) Mining of Minerals, Category: B2.

Application for Environmental Clearance (EC) (re-appraisal of Environment Clearance issued by DEIAA, Hazaribag).

The project has been granted EC by DEIAA, Hazaribag vide letter no. EC/DEIAA/2017-18/43, dated 03.08.2017.

As per O.M. dated 28th April 2023 issued by MOEF & CC projects which have been granted EC by DEIAA are to be reappraised by SEIAA / SEAC.

This is re-appraisal of the EC issued by DEIAA, Hazaribag which has been taken up for consideration on 23.01.2025. As per O.M. dated 12.12.18 issued by MOEF & CC projects fall in category B2.

Existing baseline condition as per monitoring report submitted by PP is as follows PM10 -96 $\mu g/m^3$PM 2.5-567 $\mu g/m^3$ SO2-18.2 NO2- 19.0 $\mu g/m^3$ All the data are within the permissible limit.

Dust suppression is being carried out on regular basis.

Greenbelt Developed.

As per compliance report of JSPCB regarding previous EC, plantation has been done in safety zone.

Production detail as per memo no. 1502/Khanan. dated 28.12.2024 by DMO, Hazaribag is within the permissible limit of EC.

The compliance report of previous EC has been issued by JSPCB, Regional Office, Hazaribag vide letter no. 47, dated 08.01.2025.

The SEAC has found that the certification of the compliance of the conditions of previous EC is not appropriate with respect to the following :-

i. There is no clarity on the status of execution of compliance and no details have been provided.
ii. The word "AGREED" has been mentioned as compliance status of many of the conditions.This has been written without the consent of the project authorities.

Hence, the Committee decided to obtain a self certified compliance report along with the supporting details as evidence of execution.

The self certified compliance report has been submitted and also presented before the Committee.

Project and Location Details:

Sl	Parameter		Details	
1	Project Name	:	Jugra Stone Mine	
2	Lessee:	:	M/S Maa Jagdamba Stone Works (Partners- Sri Shailendra Kumar Mehta & Sri Baleshwar Saw)	
3	Lessee Address	:	Village- Jugra, P.O. & P.S.-Barkagaon, District- Hazaribagh, Jharkhand	
4	Lease Area	:	1.72 ha.	4.26 Acres
5	Type of Land	:	Non-Forest (Raiyati Land)	
6	Project Cost	:	Rs. 42 Lakhs	
7	EMP Budget	:	Capital: Rs. 12.01 Lakhs	Recurring: 7.09 Lakhs / year
8	New or Expansion	:	DEIAA to SEIAA (re-appraisal of DEIAA EC)	
9	Mineable Reserves	:	2,62,461.63 Cum	
10	Mine Life	:	Up to the lease period i.e. 02.07.2015 to 01.07.2025	
11	Man power	:	26	
12	Water Requirement	:	3.37 KLD= 0.26 KLD (Drinking & Domestic Uses) + 0.75 (Plantation) KLD + 2.36 KLD (Dust Suppression).	
13	Water Source	:	Water will be taken from nearby village	
14	DG Set / power	:	60 KVA	
15	Crusher	:	No Crusher	
16	Nearest Water Body	:	Barkagaon Nadi, approx. 0.18 Km towards SW.	

17	Nearest Habitation	:	Arahara. Approx. 1.72 km towards SSW direction.
18	Nearest Railway Station	:	Bes Railway Station. approx. 7.89 km towards ESE.
19	Nearest Air Port	:	Birsa Munda Airport Ranchi. Approx. 60.86 km towards South.
20	Nearest Forest	:	More than 250m. as per DFO Territorial. Hazaribagh. Letter no. 1090 dated-26/02/16
21	Road & Highways	:	Hazaribagh Tandwa Tanger Road. approx. 1.76 km towards SE.

CO-ORDINATES

Geo-Coordinates of all corner points of Demarcated Block Boundary

(GPS Co-ordinates)

LATITUDE	LONGITUDE
23°55'3.70"N	85°14'46.47"E
23°55'3.47"N	85°14'48.15"E
23°55'3.22"N	85°14'48.54"E
23°55'2.98"N	85°14'48.85"E
23°55'3.07"N	85°14'49.16"E
23°55'2.79"N	85°14'49.10"E
23°55'2.49"N	85°14'49.28"E
23°55'2.18"N	85°14'49.85"E
23°55'1.13"N	85°14'49.30"E
23°55'0.85"N	85°14'49.68"E
23°55'1.24"N	85°14'50.00"E
23°55'1.12"N	85°14'50.20"E
23°55'1.40"N	85°14'50.64"E
23°55'0.10"N	85°14'52.62"E
23°55'0.16"N	85°14'52.94"E
23°54'59.65"N	85°14'53.19"E
23°54'58.87"N	85°14'51.14"E
23°54'59.01"N	85°14'51.03"E
23°54'58.78"N	85°14'50.55"E
23°54'58.96"N	85°14'50.21"E
23°54'58.79"N	85°14'49.49"E
23°54'58.38"N	85°14'49.03"E
23°54'58.91"N	85°14'47.83"E
23°54'59.25"N	85°14'48.03"E
23°54'59.25"N	85°14'48.44"E
23°54'59.61"N	85°14'48.58"E
23°55'0.29"N	85°14'49.46"E

23°55'0.72"N	85°14'48.85"E
23°54'59.58"N	85°14'47.56"E
23°54'59.39"N	85°14'47.32"E
23°54'59.45"N	85°14'45.66"E
23°55'0.25"N	85°14'45.75"E
23°55'0.92"N	85°14'45.87"E
23°55'1.33"N	85°14'46.21"E
23°55'1.83"N	85°14'46.34"E
23°55'2.77"N	85°14'46.17"E

LAND DETAILS

Khata no.	Plot no.
97	124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135 (P), 137, 138, 139 & 140

STATUTORY CLEARANCES

1	LOI / Lease does	:	i. The Letter of Intent (LoI) has been issued by District Mining Officer, Hazaribag vide memo no. 2101/Khanan, dated 13.06.2015. ii. Lease Deed- 02.07.2015 to 01.07.2025.
2	CO	:	The CO, Barkagaon vide letter no. 1284, dated 26.12.2008 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in Khatiyan.
3	DMO	:	DMO, Hazaribag vide memo no. 1307/Khanan, dated 14.11.2024 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide memo no. 1123, dated 30.07.2013 certified that the proposed project site is outside Eco Sensitive Zone of Hazaribag Wildlife Sanctuary.
5	DFO Territorial	:	Division Forest Officer, Hazaribag West Forest Divisioin vide letter no. 101 dated 04.01.2025 certified that the distance of notified and demarcated forest land is 175 meters from proposed project site. As this is an existing mine in operation since 2008, the siting criteria is not applicable.
6	DSR	:	This project is mentioned in approved DSR of Hazaribag District (Sl. no. 17, Page no. 76).
7	Gram Sabha	:	Gram Sabha conducted on 02.08.2013.

8	Mine Plan Approval	:	Mine plan approved by Geologist, H.Q.R., Jharkhand, Ranchi vide Memo No. 1412, dated 26.09.2014.
9	Previous Environmental Clearance (EC)	:	Previous EC granted by DEIAA, Hazaribag vide letter no. EC/DEIAA /2017-18/43, dated 03.08.2017.
10	Compliance report of EC	:	Compliance report of previous EC has been issued by JSPCB, Regional Office, Hazaribag vide letter no. 47, dated 08.01.2025.
11	Consent to Establish (CTE)	:	CTE issued by JSPCB vide Ref. no. 2966 (N), dated 05.11.2015.
12	Consent to Operate (CTO)	:	CTO issued by JSPCB vide Ref. no. : JSPCB/RO/HZB/CTO-9503885/2020/164, dated 28.12.2020.
13	Production Report	:	Production report issued by DMO, Hazaribag vide memo no. 1502/Khanan, dated 28.12.2024.
14	Qualified Person	:	The mining scheme has been prepared by B. Tirkey. As he has since deceased, he was not present in the meeting.

Working Details

1	Mining Method	:	Opencast Semi-Mechanized Method	
2	Quarry Area	:	1.72 Ha	Life of Mine – Up to the lease period i.e. 02.07.2015 to 01.07.2025.
3	Waste Generation	:	0 cum	
4	Stripping Ratio	:	0	
5	Working Days	:	300	
6	Benches: size	:	6 m x 6 m.	
7	Elevation of Mine	:	Highest elevation: 443 AMSL Lowest elevation: 410 AMSL	
8	Ground Level Elevation	:	443 m AMSL	
9	Ultimate Working Depth	:	33 m AMSL	
10	Water Table	:	390 m in AMSL	
11	Topography of Mine	:	Area represents gently sloping land.	
12	Explosive Requirement	:	30 kg per day of Power Gel Cartridge	
13	Diesel/Fuel requirement	:	712liters / day	

Production Details

Year	Production in cum	O.B. Cum	Density Tonnes/Cum	Stone Prod. Mt	Prod. Per day Mt.
1st	45226.00	nil	2.70	122110.20	407.03
2nd	45290.00	nil	2.70	122283.00	407.61
3rd	44200.00	nil	2.70	119340.00	397.87
4th	45795.00	nil	2.70	123646.50	412.16
5th	43655.00	nil	2.70	117868.50	392.90
Total	**224166.00**	**nil**	**2.70**	**605248.20**	**403.50**

Land Use

Existing Land Use pattern

LAND USE PATTERN			
Pattern of Utilization	**Land used in present 5 yrs plan period Acres**	**Land for balance period acers**	**Total land used at the end of life of mine acers**
Mining activities	3.24	0.00	3.24
Crusher, Magazine & offices etc.	0.00	0.00	0.00
Dumping	0.00	0.00	0.00
Mining Road	0.01	0.00	0.01
Garland drain	0.01	0.00	0.01
Green belt/ Safety Zone	0.70	0.00	0.70
Stone Stock yards	0.00	0.00	0.00
Unutilized	0.30	0.00	0.30
Total	**4.26**	**0.00**	**4.26**

ENVIRONMENT MANAGEMENT

Green Belt Development

Year	Plantation Site	No. of sampling to be planted
1st	Along lease boundary	50
2nd	Along lease boundary	50
3rd	Un utilized area	100
4th	Along lease	50

	boundary	
5th	Along lease boundary	50
	Total	300

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

Budget for Environmental Management

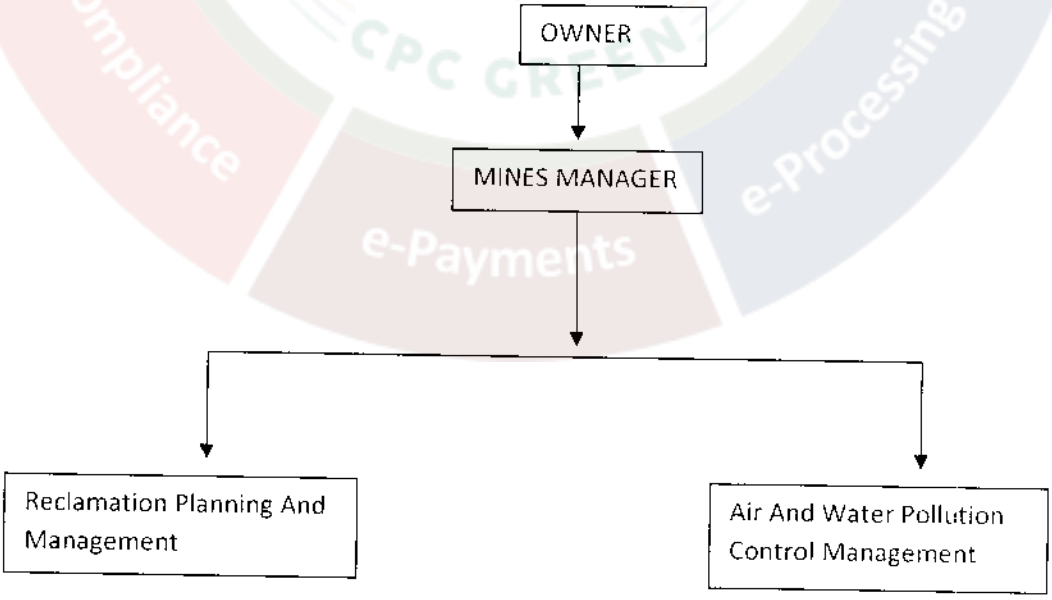
S.NO	Particulars	Annual Budget Provisions (Lakh)	
		Capital Cost	Recurring cost (In Lakh)
A)Site Facilities			
	a) Cost of Water Rs. 500/Tanker/day (Capacity 5.0 KL x 1 No.) (500X 1 X 300)	-	1.5
2.	Garland Drains and Settling Tanks (10m x 02 m x 03m x	2.75	0.15
3	Road Development and Maintenance (Road length approx. 200m, Width 5.0 m.)	2.0	0.4
4.	Plantation over the periphery of the project (1625 saplings). 1625*40= 0.65 Lakh	2.27	0.2
5	PUC certification of vehicles and maintenance	-	0.10
	Sub Total(A)	**7.02**	**2.35**
B)Labor Welfare			
1	Drinking Water Facility and rest shelter (10X20 m) with solar	1.0	0.10
2	Toilets 3 nos. (Rs 25000 x 3)	0.75	0.05
3	Occupational health checkup in a year for 26 workers (@twice/year) @ 200*2*26 and onsite first aid set-up	0.2	0.10
4	Provision of PPEs (helmets, safety shoes, safety glasses, gloves etc. (34 x 3000)	1.0	0.5
5	Vocational training on mining methods and safe work practices (@ twice/year) @ 250 x 2 x 26)	-	0.2
	Sub Total(B)	**2.95**	**0.95**
C)Emergency Rescue Plan			
1	Fire Extinguishers (2 Nos.) @ 50000 / firefighting and first aid @ 2000 per kit	1.0	0.01

2	Safety signage and warning boards like sirens, red flags, cones etc.	1.0	0.05
	Sub Total(C)	**2.0**	**0.06**
D)Solid Waste Management			
1	a) Bins 3 Nos. @ Rs. 1500 each	0.045	0.05
	Sub Total(D)	**0.045**	**0.05**
E)Monitoring Program			
	a) Ambient Air Quality	-	0.90
	b) Water Quality	-	0.80
	c) Noise Quality	-	0.18
	d) Soil Quality	-	0.80
	e) Biodiversity Survey	-	0.50
	f) Socio- Economy Survey	-	0.50
	Sub Total(E)	-	**3.68**
	Grand Total(A+B+C+D+E)	**12.01**	**7.09**

Environment Monitoring Programme:

SL. No.	Description	No. Of Monitoring Stations	Duration
1.	Air	3 stations	6 Monthly
2.	Water	2 stations	6 Monthly
3.	Noise	3 stations	6 Monthly
4.	Soil	3 stations	6 Monthly

Organization Structure



Water Quality Management

- Mining will be confined to above Ground Water Table (GWT). No mining will be done below GWT.
- Rainwater in quarry will be collected in a collection pit at mine floor. Arrangements would be made for pumping out this water regularly during rainy season.
- Water pumped out from quarry would be collected in a settling sump to be located within lease area. Desilted water will be allowed to flow into natural drainage.
- Garland drain would be provided on upper contour around the quarry. Water collected in Garland drain would be diverted to natural drainage system.
- Foot wall & Drain would be provided at edge of external dump water collected in foot drain would be diverted to settling sump for desilting.
- Sewage from rest shelter would be treated in Septic Tank soak pit.

Air Quality Management

Drilling – Drilling is a major source for emission of dust & Noxious Gases.

Mitigation measures:

Use of Sharp Drill Bits

Wet Drilling – Water will be sprinkled on the site where drilling has to be done.

Blasting – Blasting generate gases & dust. This effect would be mitigated by following measures.

- Controlled blasting would be practiced
- Optimum quantity of explosives would be used.
- Blasting to be done during favorable weather conditions.

Operation of Diesel Equipment's – They generate Noxious gases. It will be ensured that all mining machineries & transport vehicles would be repaired & maintained regularly.

Loading of Product on Truck – Water will be sprinkled on blasted stone mass before they are loaded to trucks for transport.

Movement of Trucks on Road – Movement of Trucks on Road generate dust for mitigation of this pollution following measures will be taken

- Regular water sprinkling on Gaul road by using water Tankers.
- Regular repair of Haul road
- All Trucks carrying stone outside lease area will have PUC certificate.

RISK ASSESSMENT

The hazard identification and risk analysis is done using qualitative method:

Hazard identification & Risk Analysis in Stone Mining operation

S.No.	Activity	Hazard	Probability	Severity	Score*
1	Temporary Storage of Explosives	Unintended Explosion	Very Unlikely	Catastrophic	5
2	Charging of	Unwanted	Very	Catastrophic	5

	Explosives	Explosion	Unlikely		
3	Blasting	Hit by fly rock (Bodily Injury)	Occasional	Major	6
4	Drilling	Exposure to Dust	Frequent	Insignificant	5
5	Bench Formation	Fall/Slide/Tripping (Bodily Injury)	Probable	Moderate	6
6	Loading/Unloading	Bodily injury by hitting by loading material, Exposure to Dust	Very Unlikely	Minor	20
7	Transportation	Vehicle Accident, Exposure to Dust	Remote	Minor	16

NOTE: *Score 1 to 4 High Risk, 5 to 12 Medium Risk & 13 to 25 is low risk.

The risk score lies between 5 to 20. Hence, the risk in stone quarry ranges from Medium to Low-Risk Rank and hence the risk is "**Acceptable**"

Preventive Measures:

Slope Failure

Face instability gives rise to rock falls or slides. Face instability can arise because of adverse geological faulting or poor work methods. Those at greatest risk will be workers engaged in loading material and driving vehicles. To manage the face stability, the following measures will be taken:

- Overall slope angles of benches will be maintained at 45°
- Unmanageable heights are not created
- Loose sides are properly dressed
- No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961)
- No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961)

Drilling Operations

Drilling is common to the mining of stones. The main hazards linked to the drilling operations are:

- Falls from the edge of a bench
- Dust generation during drilling
- Noise Generation due to drilling
- Entrapment in by moving part of the drilling equipment

Falls from the edge of a bench

While the primary hazard is that of the driller falling over the edge of a working or abandoned bench, the risk of minerals or materials falling onto workers at the foot of the face should not be overlooked. A face and bench are a necessary part of a working quarry and therefore it is not possible to remove the hazards associated with them.

While others may need to work at or near the edge of a working bench the person most at risk during the drilling operation is the driller. Others such as the manager of the mine or maintenance personnel, may approach the bench edge during the drilling operation in the event of a breakdown of the drilling equipment.

Control Measures

- It will be ensured that the drilling equipment is suitable for the job.
- The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge.
- Provision of portable rail fencing between the drilling operations and the edge of the bench
- Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear.
- Restricted access to the area to all persons except those necessary for the drilling operation.

Dust generation during drilling

The hazard is the inhalation of dust which is created during the drilling operation. Properly applied control measures can substantially reduce the risk to the drill operator

- Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation
- In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose.
- Drilling machine shall be fitted with dust suppression, collection and disposal arrangement
- Deep wetting of drilling zones will be done by water sprinkling before starting drilling.

Noise Generation during drilling

Drilling operations give rise to harmful levels of noise. It is created by both drilling the hole and the operation of the drill rig itself.

The noise levels around drilling equipment will be continuously measured and the risk will be assessed. Unless control measures are in place no-one, except those necessary for the work in hand, will be allowed inside the designated noisy area. In most cases this will be the drill operator.

The risk is highest at older machines. Newer large drilling machines are provided with sound insulated operating cabins which control the noise level within the cabins to acceptable levels. Hence, it will be ensured that newly updated machines will be used for drilling.

Other control measures will include training operators and providing them with ear protection, although the latter should only be seen as an interim precaution until a permanent solution can be found.

Blasting Operations

Most of the accidents from blasting occur due to the projectiles and mainly due to overcharging of the shot holes as a result of certain special features of the local ground.

Flying rocks are encountered during initial and final blasting operations. Noise and dust also generated during blasting. Following control measures should be taken:

- Blast hole geometry shall be properly designed.
- Blast site shall be wetted before and after blasting operations are completed.
- Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation.
- Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours.
- While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions.
- The vibrations should be monitored periodically in consultation with the local Mining authorities.

Handling of Explosives

Explosives by virtue of their nature have the potential for the most serious and catastrophic accidents in the mining operations yet the way they are used is an excellent example of how risk assessment is properly applied. For example, persons holding blasters certificate granted by DGMS with proper training in explosive handling and use will be allowed for blasting operations.

- Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use.
- Poorly designed shots can result in misfires, early ignition and flying rock.

The storage of the explosives and its transfer to and from the quarry area shall be strictly in accordance with the conditions listed in the permission granted by Explosives Department. Few conditions are listed below:

- Proper and safe storage of explosives in approved and Licensed Magazine

- Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place.
- Explosives shall be conveyed in special containers
- Explosives and detonators shall not be carried in the same container
- The holes which have been charged with explosives will not be left unattended till blasting is completed.

Health Hazards

Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level.

Accident at Site

Identifying the hazards that come along with the presence of vehicles at the workplace (e.g.reversing operations, loading) can cause harm if not properly handled. Among some of the factors that may make vehicle accidents more likely are:

- Rough access roads
- Time pressure
- Inadequate brakes (Possibly from lack of maintenance)
- Carelessly parked vehicles (e.g. being parked on a slope without being adequately secured)
- Untrained drivers
- Overturning vehicles

To avoid such instances, it will be ensured that workers shall be trained and involved in the risk management process and tell them to share their experience regarding what to do, to reduce risk.

Transportation

The usual method of transporting minerals from the working face is by trucks / tippers/dumpers. Large earth moving equipment's are used for loading /transporting large quantity of mineral from a mine. During transportation of minerals in the mining area, utmost care will be taken by the vehicle operator to avoid any accident with any incoming vehicle by keeping sufficient gap between the two vehicles, keep safe distance from the edge of the mine face, avoid any accident to a worker crossing the haul road and shall maintain low speed. The vehicle operator shall not try to overtake another vehicle.

- Mine road shall be made smooth regularly with a road roller.
- Mine road will be cleaned daily to remove fallen rock/stones for smooth transportation.
- Mine road will be made sufficiently wide to keep two-way traffic.
- Mine roads will be designed as per the specifications given under MMR 1961.

- Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust.
- All transportation within the mine lease area should be carried out directly under the supervision and control of management.
- The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management.
- Navigation signs will be provided at each and every turning point up to the main road (wherever required)
- To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.
- Only trained drivers will be hired.

Undertaking submitted affirming:

a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
i. If any tree felling than necessary permission shall be taken from the competent authority.
j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

The proposal was appraised by State Level Expert Appraisal Committee (SEAC) and recommended for grant of Environmental Clearance in its **120th** meeting held on **20th, 21st, 22th, 23rd and 24th January, 2025** in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF & CC O.M dated 12.12.18.

State Level Environment Level Impact Assessment Authority (SEIAA), Jharkhand in its **120th** meeting held on **28th & 29th January, 2025** discussed the project proposal along with recommendations made by SEAC and decided to grant EC to the project.

On the basis of recommendation of SEAC and decision of SEIAA to grant of EC, Environmental Clearance is hereby issued to **"Jugra Stone Mine of M/s Maa Jagdamba Stone Works (Partners : Shri Shailendra Kumar Mehta & Shri Baleshwar Saw) at Village : Jugra, Thana : Barkagaon, District : Hazaribagh, Jharkhand (1.72 Ha)"** alongwith the following conditions:

A. Specific Conditions:

1. This Environmental Clearance is valid subject to the following condition below –
   That this project has-
   a. Obtained all legal rights to operate at concerned place.
   b. Complied with all existing concerned laws of the land and
   c. Complied with the decisions of SEIAA on the issue of Environmental Clearance till date.
2. **Project Authority will ensure that personal protective equipments such as protective clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel's.**
3. **The production shall be restricted as per approved mining scheme or the approved mine plan at the time of EC, which ever is less.**
4. **In compliance of OM no.F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "*EkPed Ma KeNaam*" and the details of the same shall be uploaded in the MeriLiFE Portal (https://merilife.nic.in). 10% of the total green belt proposed shall be allocated under this clause.**
5. **During appraisal of the project it is seen that the project authority have not fully complied the condition of green belt development as per the previous EC. Hence, the project authorities are required to plant twice the number of trees as was required in the previous EC. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.**
6. **Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-**

Tagged photographs.

7. **Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.**
8. **Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to submitted along with 6 monthly compliance.**
9. **Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.**
10. **Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.**
11. **Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.**
12. This EC letter is subject to Hon'ble NGT order dated : 13.09.2018, order dated : 11.12.2018 and MoEF & CC O.M. dated : 12.12.2018.
13. No mining/activity shall be undertaken in the forest land or deemed forest without obtaining requisite prior forestry clearance.
14. The project proponent may apply simultaneously for forest and NBWL clearance, in order to complete the formalities without undue delay, which till process on their respective merits, no rights will vest in or accrue to them unless all clearance are obtained, if applicable.

B. 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. In the writ petition (Civil) no. 202/1995, T.N. Godaverman Thirumulpad vs union of India and ors. the Hon'ble Supreme Court passed an order dated 03.06.2022 " National Park or Wildlife Sanctuary must have an ESZ of minimum 01 km in which the activities prescribed and prescribed in the guidelines of 09th February, 2011 shall be strictly adhered to".
3. The Project proponent complies with all the statutory requirements and judgement 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.
4. The Hon'ble Supreme Court vide order dated 08.01.2020 in W.P. (Civil) No.114/2014 in the matter of Common Cause vs. Union of India has directed that the area which has been mined should be restored so that grass and other vegetation including trees can grow in the mining area for the benefit of animals.

"The mining lease holders shall, after ceasing mining operations, undertake re-grassing 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".

5. 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 Judgement 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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.
11. 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".
12. 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.
13. 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.
14. 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.

15. 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. Environment clearance.nic.in). A copy of the advertisement may be forwarded to the concerned MoEF & CC Regional Office for compliance and record.
16. 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.
17. In all Stone Mining projects, depending upon the air pollution estimates based upon fuel use in operations and activities of the respective projects; required monitoring station based air quality monitoring shall be done in the influence area of the project with needed mitigation conditions to ensure sustainable Stone mining as per guidelines, circulars and norms of MOEFCC / Hon'ble NGT or any other directives of regulatory statutory bodies and competent Courts.

    PP to take preventive steps to avoid flash flood conditions arising from mining operations and probable run off in rainy season conditions.
18. PP shall maintain minimum distance from Reserved / Protected Forests as stipulated in applicable guidelines.
19. All statutory clearances shall be obtained before start of mining operations.

C. Air quality monitoring and preservation:

1. The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2; CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCUL, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.
2. Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance; Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust

control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/ Central Pollution Control Board.

3. Approved devices for dust suppression shall be installed.
4. Personnel working in dusty areas should be provided with protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed. Detailed report shall be sent to Pollution Control Board periodically.
5. The proponent shall upload the status of compliance of the environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to Jharkhand State Pollution Control Board and its concerned Regional Office The criteria pollutant levels namely : SPM ,RSPM,SO_2 ,NOx (ambient levels) or critical sectoral parameters , indicated for the project shall be monitored and displayed at a convenient location near the project shall be monitored and displayed at a convenient location near the main gate of the company in the company in the public domain.

D. Water quality monitoring and preservation:

1. In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF&CC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
2. Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
3. Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the

Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

4. The Project Proponent shall undertake regular monitoring of natural water course, water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEF&CC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board, Clearly showing the trend analysis on six-monthly basis.

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

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

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

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

9. The mining operations shall be restricted to ground above water table and it should not intersect the groundwater table. In case of working below the ground water table, prior

approval of the Ground Water Directorate, Government of Jharkhand / Central Ground Water Board shall be obtained. Benches height and slope shall be maintained as per approved Mining Plan. The Mining Plan has to be got approved by concerned authorities as per IBM or equivalent agencies. Safety measures shall be adopted in line with DGMS Guidelines.

10. The project proponent shall ensure that no natural watercourse and / or water resources shall be obstructed / diverted due to any mining operations. Adequate measures shall be taken for conservation and protection of the first order and the second order streams, if any emanating / passing through the mine lease area during the course of mining operation.

11. The project proponent shall implement approved conservation measures to augment ground water resources in the area in consultation with the Ground Water Directorate, Government of Jharkhand / Central Ground Water Board.

12. The project proponent shall if required, obtain necessary prior permission/NOC from the competent authorities for drawl of requisite quantity of water required from the source for the project.

13. Suitable rainwater harvesting measures shall be planned and implemented in consultation with the Ground Water Directorate, Government of Jharkhand / Central Ground Water Board.

E. Noise and vibration monitoring and prevention:

1. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
2. The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.
3. The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including labours 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/ labours are working without personal protective equipment.

F. Mining Plan:

1. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.,

No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.

2. The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.
3. The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office.
4. No change in mining technology and scope of working should be made without prior approval of the Statutory authorities / Department of Mines, Government of Jharkhand / Jharkhand State Pollution Control Board, Ranchi during the EC period.
5. No change in the calendar plan including excavation, quantum of mineral and waste should be made.
6. The Project proponent shall make all internal roads pucca as per approved specification of Govt. of Jharkhand and shall maintain a good housekeeping by regular cleaning and wetting of the haul roads and the premises.
7. The Project proponent shall maintain register for production and dispatch and submit return to the Board.
8. Dispensary facilities for First Aid shall be provided at site.

G. Land reclamation:

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

2. The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.
3. The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.
4. The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
5. The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC.
6. Catch drains, settling tanks and ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.
7. Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.
8. The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.

II. Transportation:

1. No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of

transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village' rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.

2. The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.
3. Vehicular emissions shall be kept under control by regular repairing of transport road and regular air quality monitoring. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded. No transportation of stone / sand outside the mine lease area shall be carried out after the sunset.

I. Green Belt:

1. The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.
2. The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.

3. The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.
4. The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.
5. And implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.
6. The Project proponent shall not cut trees / carry out tree felling in leased out area without the permission of competent authority.

J. Public hearing and human health issues:

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

3. The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest: For Noise Audiometric: for Lead Exposure Blood Lead. For Welders Full Ophthalmologic Assessment: for Manganese Miners a complete Neurological Assessment by a Certified Neurologist. and Manganese (Mn) Estimation in Blood: For Inorganic Chromium-Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years. including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos. Hard Rock Mining. Silica. Gold. Kaolin. Aluminium. Iron. Manganese. Chromium. Lead. Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).
4. The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9. (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities .(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1),Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted. and the effect of age. (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented). (e) they should not have developed any Persistent Back Pain, Neck Pain. and the movement of their Hip, Knee and other joints should have normal range of movement. (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office. MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.
5. The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
6. Project Proponent shall make provision for the housing for workers/labours or shall construct labour camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.

7. The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.

8. Measures should be taken for control of noise levels below prescribed norms in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.

K. Corporate Environment Responsibility (CER):

1. The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.

2. Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEF&CC and its concerned Regional Office.

3. The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Jharkhand State Pollution Control Board, Ranchi. PP shall carry out CSR activities as per Government Guidelines (%of Profit / turnover) or at least Rs 1 per ton whichever is higher.

4. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the Jharkhand State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986,as amended subsequently ,shall also be put on the website of the company along the status of compliance of EC conditions and shall also to the concerned Regional Office of JSPCB by e-mail.

L. Miscellaneous:

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

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

3. It shall be mandatory for the project management to submit six (06) monthly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard copies and soft copies to the regulatory authority concerned Regional Office of MoEF & CC at Ranchi and Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi / CPCB / SEIAA.
4. A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.
5. 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.
6. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
7. The Ministry / SEIAA / SEAC may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
8. The Ministry / SEIAA / SEAC reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
9. No blasting shall be carried out after sunset. Blasting operation shall be carried out only during daytime. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.
10. Drilling shall either be operated with the dust extractors or equipped with water injection system.
11. Pre-placement medical examination and periodical medical examination of the workers engaged in the project conducted by a Registered Medical Officer shall be carried out and records maintained.
12. Provision shall be made for the housing of construction labour at a suitable place away from the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets / septic tanks, safe drinking water, medical health care, etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
13. Proper Safety measures as per statutory requirement shall be implemented around the mined out Pit prior to closure of site.
14. The Project Proponent shall submit six monthly report on the expenditure incurred on environmental management plan submitted by them.

15. Since blasting and mining on Hillock / Rock out crop may also be carried out, suitable scheme for access / ramp to the highest elevation with gradient shall be submitted for approval from competent authorities.
16. A separate environmental management / monitoring cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
17. The Jharkhand State Pollution Control Board, Ranchi directly or through its Regional Office, shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) by furnishing the requisite data / information / monitoring reports.
18. A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zila Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the project proponent.
19. It shall be mandatory for the project management to submit six (06) monthly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard copies and soft copies to the regulatory authority concerned Regional Office of MoEF & CC at Ranchi and Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi/SEIAA/CPCB.
20. 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 attract action under the provisions of Environment (Protection) Act, 1986.
21. The Authority reserves the right to add any new condition or modify the above conditions or to revoke the clearance if conditions stipulated above are not implemented to the satisfaction of Authority or for that matter for any other Administrative reason.
22. In case of any deviation or alteration in the project proposed from those submitted to SEIAA, Jharkhand for clearance, a fresh reference should be made to SEIAA to assess the adequacy of the conditions imposed and to incorporate any new conditions if required.
23. The above stipulations would be enforced among others under the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016 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 Jharkhand and any other Court of Law relating to the subject matter.
24. The SEIAA, Jharkhand or any other competent Authority may alter modify the above conditions or stipulate any further condition in the interest of Environment Protection.

25. The Environmental Clearance accorded shall be valid for the period of lease of the mine. The PP shall not increase production rate and alter lease area during the validity of Environmental Clearance.
26. Any Appeal against this Environmental Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Sd/-
Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand.

Memo No.- **EC/SEIAA/2024-25/3454/2024/**606 Ranchi, Date : 07/02/2025

Copy to:

1. Secretary, Department of Forests, Environment & Climate Change, Govt. of Jharkhand.
2. Deputy Commissioner, District – Hazaribagh, Jharkhand.
3. Divisional Forest Officer, Hazaribagh West Forest Division, Hazaribagh, Jharkhand.
4. Divisional Forest Officer, Wildlife Division, Hazaribagh, Jharkhand.
5. Director IA Division, Monitoring Cell, MoEF and Climate Change, Indira Paryavaran Bhavan, Jorbag Road, Aliganj, New Delhi – 110003.
6. Regional Office, Ministry of Environment, Forest and Climate Change, Govt. of India, 2nd Floor, Jharkhand State Housing Board (HQ), Harmu Chowk, Ranchi, Jharkhand - 834002.
7. District Mining Officer, District - Hazaribagh, Jharkhand.
8. Member Secretary, Jharkhand State Pollution Control Board, Ranchi.
9. Member Secretary, Jharkhand State Expert Appraisal Committee, Ranchi.
10. Website.
11. Guard file.

07/2/2025
Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand