



File No: EC/SEIAA/2024-25/3211/2024

Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), JHARKHAND)



Dated 20/08/2024



To,

KARUN KUMAR CHANDAN
KARUN KUMAR CHANDAN
SHRI KARUN KUMAR CHANDAN (SAND IN - CHARGE) JHARKHAND STATE MINERAL
DEVELOPMENT CORPORATION LIMITED (A GOVT. OF JHARKHAND UNDERTAKING)
KHANIJ NIGAM BHAWAN, DORANDA, RANCHI , RANCHI, JHARKHAND, 834002
establishincharge@jsmdc.in

Subject: Grant of Terms of Reference under the provision of the EIA Notification 2006-regarding.

Sir/Madam,

This is in reference to your application for Grant of Terms of Reference under the provision of the EIA Notification 2006-regarding in respect of project Khetko – Chalkari Sand Ghat submitted to Ministry vide proposal number SIA/JH/MIN/484433/2024 dated 23/07/2024.

2. The particulars of the proposal are as below :

(i) TOR Identification No.	TO24B0107JH5194091N
(ii) File No.	EC/SEIAA/2024-25/3211/2024
(iii) Clearance Type	TOR
(iv) Category	B1
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vii) Name of Project	Khetko – Chalkari Sand Ghat
(viii) Name of Company/Organization	KARUN KUMAR CHANDAN
(ix) Location of Project (District, State)	BOKARO, JHARKHAND
(x) Issuing Authority	SEIAA
(xii) Applicability of General Conditions	no
(xiii) Applicability of Specific Conditions	no

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1(Part A and B) were submitted to the Ministry for an appraisal by the State Environment Impact Assessment Authority(SEIAA) Appraisal Committee (SEIAA) in the Ministry under the provision of EIA notification 2006 and its subsequent amendments.

4. The above-mentioned proposal has been considered by State Environment Impact Assessment Authority (SEIAA) Appraisal Committee of SEIAA in the meeting held on 05/08/2024. The minutes of the meeting and all the Application and documents submitted [(viz. Form-1 Part A, Part B, Part C EIA, EMP)] are available on PARIVESH portal which can be accessed by scanning the QR Code above.
5. The brief about configuration of plant/equipment, products and byproducts and salient features of the project along with environment settings, as submitted by the Project proponent in Form-1 (Part A, B and C)/EIA & EMP Reports/presented during SEIAA are annexed to this EC as Annexure (1).
6. The SEIAA, in its meeting held on 05/08/2024, based on information & clarifications provided by the project proponent and after detailed deliberations recommended the proposal for grant of Terms of Reference under the provision of EIA Notification, 2006 and as amended thereof subject to stipulation of specific and general conditions as detailed in Annexure (2).
7. The SEIAA has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the State Environment Impact Assessment Authority (SEIAA) Appraisal Committee hereby decided to grant Terms of Reference for instant proposal of M/s. KARUN KUMAR CHANDAN under the provisions of EIA Notification, 2006 and as amended thereof.
8. The Ministry reserves the right to stipulate additional conditions, if found necessary.
9. The Terms of Reference 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. This issues with the approval of the Competent Authority.

Copy To

N/A

Annexure 1

Standard Terms of Reference for (Mining of minerals)

1.

S. No	Terms of Reference
1.1	An EIA-EMP Report shall be prepared for peak capacity (.....MTPA) operation in an ML/project area of.....ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.
1.2	An EIA-EMP Report would be prepared for peak capacity operation to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for..... MTPA of coal production based on approved project/Mining Plan for.....MTPA. Baseline data collection can be for any season (three months) except monsoon.
1.3	If the washery is located within the mine lease or near to the mine lease its location should be cited separately also, providing pillar coordinates and site layout plan. In such cases cumulative impact of mine operation with washery to be assessed and EMP measure to be drawn to the worst scenario
1.4	Plan of mechanized transportation of coal to coal washery also for rejects and washed coal to be

S. No	Terms of Reference
	drawn
1.5	Propoer KML file with pin drop and coordinate of mine at 500-1000 m interval be provided
1.6	A Study area map of the core zone (project area) and 10 km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nullahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries, mines, coal washery and other polluting sources. In case of ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, forests (Reserved/Protected), migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the 15 km study area should be given. The above details to be furnished in tabular form also
1.7	Map showing the core zone delineating the agricultural land (irrigated and un-irrigated, uncultivable land as defined in the revenue records, forest areas (as per records), along with other physical features such as water bodies, etc should be furnished.
1.8	A contour map showing the area drainage of the core zone and 25 km of the study area (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated in the separate map.
1.9	Catchment area with its drainage map of 25 km area within and outside the mine shall be provided with names, details of rivers/ riverlet system and its respective order. The map should clearly indicate drainage pattern of the catchment area with basin of major rivers. Diversion of drains/ river need eloboration in form of lengthe, quantity and quality of water to be diverted
1.10	(Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working scheme until the end of mine life should be provided on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps and sections should be included. The Progressive mine development and Conceptual Final Mine Closure Plan should also be shown in figures. Details of mine plan and mine closure plan approval of Competent Authority should be furnished for green field and expansion projects.

Additional Terms of Reference

N/A

Annexure 2

Details of Products & By-products

Name of the product /By-product	Product / By-product	Quantity	Unit	Mode of Transport / Transmission	Remarks (eg. CAS number)
Sand	Sand	219576	Cubic Meter per Year	Road	As per approved mining plan



State Level Environment Impact Assessment Authority, Jharkhand

Nursery Complex, Near Dhurwa Bus Stand, P.O+P.S-Dhurwa, Ranchi, Jharkhand-834 004

E-mail: msseiaa.jhk@gmail.com/chr-seiaajhr@gov.in

website: www.jseiaa.in

Letter No.- EC/SEIAA/2024-25/3211/2024/

Ranchi, Date :

To: Managing Director,
M/s Jharkhand State Mineral Development
Corporation Ltd. (JSMDC Ltd.),
Khanij Nigam Bhawan, Nepal House Area, Doranda,
District : Ranchi , Jharkhand : 834002.

Sub: Prescribing of ToR to “Khetko - Chalkari Sand Ghat of Jharkhand State Mineral Development Corporation Ltd. (JSMDC), Mauza : Khetko & Chalkari, Block : Peterwar, District : Bokaro, Jharkhand (26.14 Ha)” (Proposal No. : SIA/JH/MIN/484433/2024) – regarding.

Ref: Your application no. Nil, dated – 22.07.2024.

Sir,

It is in reference to the project to “Khetko - Chalkari Sand Ghat of Jharkhand State Mineral Development Corporation Ltd. (JSMDC), Mauza : Khetko & Chalkari, Block : Peterwar, District : Bokaro, Jharkhand (26.14 Ha)” along with the application in the prescribed format (Form-1) and a copy of the pre-feasibility report and approved mine plan to prescribe the ToRs for undertaking detailed EIA study for the purpose of obtaining environmental clearance under the provisions of the EIA Notification, 2006 in respect of the above mentioned project.

This is a new project which has been taken for appraisal on 25.07.2024.

Project Category : B1 – 1(a) Mining of Minerals : Application for Terms of Reference (ToR) as per EIA notification, 2006.

ToR Application for: Proposed Capacity- 2,19,576 cum/annum or 3,82,062 TPA (Dry Basis)

PROJECT AND LOCATION DETAILS:

S.No.	Parameter	Details
1	Project Name	Khetko – Chalkari Sand Ghat
2	Lessee:	M/s Jharkhand State Mineral Development Corporation Ltd. (A Govt. of Jharkhand Enterprises)
3	Lessee Address	Khanij Nigam Bhawan, Doranda, Ranchi – 834002 (Jharkhand)

4	Lease Area	Ha. 26.14 Ha.	Acres – 64.56 Acres															
5	Type of Land	Non-Forest Government Land (River Bed)																
6	Project Cost	Rs 2.05Crore																
7	EMP Budget	Capital: Rs 35.41 Lakhs	Recurring: 4.28 lakhs / year															
8	New or Expansion	New																
9	Mineable Reserves for 1st year & subsequent year 60% of Replenished quantity	Cum: 2,19,576 cum (Dry Basis)	Tonne : 3,82,062 Tonne (Dry Basis0															
10	Mine Life/Lease Period	Life of Mine/Lease Period, as per provision of Jharkhand State Sand Mining Policy, 2017 and extendable based on amendments in Jharkhand State Sand Mining Policy.																
11	Man power	578																
12	Water Requirement	Total water requirement is about 36.8 KLD= 26 KLD (Drinking Water & Domestic Uses, 578 persons @45 LPCD) + 3.6 KLD (Water sprinkling) + 7.2 KLD (plantation)																
13	Water Source	By Authorised hired tankers																
14	DG Set / power	NA																
15	Crusher	NA																
16	Nearest Water Body	DamodarRiver (Project Site)																
17	Nearest Habitation	Khetko Village, at 0.33 KM in WNW direction.																
18	Nearest Rail Station	Jarangdih Train station is about 1.67 Km in NE direction																
19	Nearest Air Port	Bokaro Airport is about 25.8 Km in ESE direction.																
20	Nearest Forest	<table><tr><th>Name of Places</th><th>Distance (Km)</th><th>Direction</th></tr><tr><td>Pipilio P.F.</td><td>7.6</td><td>NNW</td></tr><tr><td>Gandhinagar P.F.</td><td>11.46</td><td>NE</td></tr><tr><td>Angwali P.F.</td><td>5.6</td><td>SE</td></tr><tr><td>Tenughat P.F.</td><td>10.72</td><td>WSW</td></tr></table>		Name of Places	Distance (Km)	Direction	Pipilio P.F.	7.6	NNW	Gandhinagar P.F.	11.46	NE	Angwali P.F.	5.6	SE	Tenughat P.F.	10.72	WSW
Name of Places	Distance (Km)	Direction																
Pipilio P.F.	7.6	NNW																
Gandhinagar P.F.	11.46	NE																
Angwali P.F.	5.6	SE																
Tenughat P.F.	10.72	WSW																
21	Road Highways	Jarangdih Road is about 1.88 km in N direction NH-320D is about 11.4 km in S direction																
22	Seismic zone	Zone III as per seismic zone map of India																

CO-ORDINATES

Pillar No.	Latitude	Longitude	Pillar No.	Latitude	Longitude
1	23°45'24.958"N	85°56'11.504"E	16	23°45'27.832"N	85°55'09.310"E
2	23°45'23.119"N	85°56'12.664"E	17	23°45'24.54"N	85°55'12.71"E
3	23°45'20.95"N	85°56'14.21"E	18	23°45'23.00"N	85°55'15.90"E

4	23°45'19.62"N	85°56'15.15"E	19	23°45'21.74"N	85°55'19.40"E
5	23°45'16.24"N	85°56'6.30"E	20	23°45'20.55"N	85°55'22.14"E
6	23°45'11.81"N	85°55'54.44"E	21	23°45'18.98"N	85°55'26.81"E
7	23°45'11.08"N	85°55'49.10"E	22	23°45'16.05"N	85°55'38.33"E
8	23°45'11.00"N	85°55'43.30"E	23	23°45'15.05"N	85°55'44.09"E
9	23°45'11.23"N	85°55'40.08"E	24	23°45'16.05"N	85°55'51.12"E
10	23°45'11.72"N	85°55'36.46"E	25	23°45'16.82"N	85°55'55.68"E
11	23°45'13.60"N	85°55'29.30"E	26	23°45'18.21"N	85°56'0.20"E
12	23°45'17.19"N	85°55'19.06"E	27	23°45'19.09"N	85°56'2.29"E
13	23°45'20.60"N	85°55'13.26"E	28	23°45'19.86"N	85°56'4.69"E
14	23°45'23.071"N	85°55'8.281"E	29	23°45'21.35"N	85°56'6.82"E
15	23°45'25.781"N	85°55'08.867"E	30	23°45'23.40"N	85°56'9.62"E

LAND DETAILS

Mauza	Khata no.	Plot no.
Khetko	120	2470
Chalkari	225	4149

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Auction letter has been issued by Joint Secretary, Mines & Geology Deptt., Govt. of Jharkhand vide letter no. Kha.ni.-(Vividh)-117/2017-2090/M, dated 30.09.2022. According to provisions in Jharkhand State sand Mining Policy and its amendment. JSMDC Ltd. has been nominated as nodal agency for operating sand mines in category II.
2	CO	:	The CO, Peterwar vide letter no. 811, dated 19.07.2024 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyan & Register II. With regard to Khata number & Plot number involved in this project the DMO, Bokaro has certified vide letter no. 1095/Khanan, dated 22.07.2024.
3	DMO	:	DMO, Bokaro vide letter no. 904/Khanan, dated 12.06.2024 certified that no other balughat exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 883, dated 17.05.2024 certified that the proposed project site is outside Eco Sensitive Zone of Topchanchi Wildlife Sanctuary.
5	DFO Territorial	:	Division Forest Officer, Bokaro Forest Division vide letter no. 654, dated 10.03.2023 certified that the distance of forest is more than 250

		:	meter from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Bokaro District (Sl. no. 04, Page no. 72-73).
7	Gram Sabha	:	BDO, Peterwar vide letter no. 962, dated 10.06.2024 informed that Gram Sabha conducted on 10.06.2024.
8	Mine Plan Approval	:	Approved by District Mining Officer, Bokaro vide Memo No. 886/M, dated 08.06.2024.
9	Qualified Person	:	Md. Tauseef Warsi was present in the meeting and affirmed that the mine plan has been prepared by him.

WORKING DETAILS

1	Mining Method	:	Opencast Manual Method
2	Quarry Area	:	26.14Ha
3	Waste Generation	:	No waste generation
4	Stripping Ratio	:	0:0
5	Working Days	:	200 days
6	Bench: size & No	:	NA
7	Elevation of Mine	:	155 m AMSL to 153.6m AMSL
8	Ground Level Elevation	:	153.6 m AMSL
9	Ultimate Working Depth	:	1.4 m
10	Water Table	:	NA
11	Topography of Mine	:	Area represents gently sloping land.
12	Explosive Requirement	:	None. No blasting required
13	Diesel/Fuel Requirement	:	Not required for mining.

PRODUCTIONDETAILS

Year	Total Area(Ha)	Thickness(m)	Average Replenishment Rate As per Approved DSR	Volume(cum) 60%	Tonnage factor As per Approved DSR	Quantity in ton 60%
1st	26.14	1.4	100%	2,19,576	1.74	3,82,062

LAND USE

GM Land	Area in Hectares
Private Land	0.00
Proposed Mining Area (Govt. Bhu-jal Land)	26.14

Company land	00
Total Area	26.14

ENVIRONMENT MANAGEMENT

GREEN BELT DEVELOPMENT

Village	No of plants	Area consider for plantation (length of approach road)	Species of plant
Khetko&Chalkari Sand Ghat Total area of 26.14 ha in River - Damodar	2400	1.80 Km 1800/3=600 Plants 600x4=2400 Plants. Two row plantation along the both side road.	Anjan, Sahjan, Mango, Jackfruit, Jamun, Sal, Gulmohar, Neem, Pipal, Arjun etc other local Fruits Bearing Tress

- 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.

Environment Management Budget

Sr. No.	Particulars	Budget Provisions (Rs)	
		Capital	Recurring
1	Water Requirement & Other Requirements Water sprinkling for outgoing and incoming transportation vehicles for haul road and Green Belt. Cost for 200 days for 3.8 KLD @5 KL tanker capacity, Rupees 500- per tanker	30,000	76,000
2	Road Maintenance & Monitoring Prepare & Maintenance of approach road (Max. Road length 3 Km, Width 4.0m) @500Rs. / Meter.	15,00,000	1,50,000
	Monitoring twice a year (Air, Soil, Water & Noise twice a year)	-	1,00,000
3	Plantation Scheme Green Belt Development along the road (for each plants including hedges and fences) 4000 Plants @ INR 500/Plant	20,00,000	1,00,000
4	Solid Waste Management Bins 10 nos.	5,000	1,000
	Transport of Dry Waste/Wet Waste	6,000	1,000
	Signage and Caution Board	6,000	1,000
Total EMP Budget		35,41,000	4,28,000

Environment Monitoring Plan (post operation)

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx In the vicinity of the mine area. In the surrounding area covering project site only.	2 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 2 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 station	Six Monthly

Undertaking submitted affirming:

- Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- 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.
- 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
- The Boundary Pillars of the proposed mine lease area will be maintained properly.
- One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- 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.
- Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- 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.
- If any tree felling than necessary permission shall be taken from the competent authority.
- 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.
- Personal protective equipments such as protecting clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

- l. Transportation from the river bed to the NH-320G will be done using the existing road.
- m. The Mining Plan has been prepared and approved in consonance with Enforcement & Monitoring Guidelines for Sand Mining, 2020.
- n. Wet sand will not be transported.

SOLID WASTE MANAGEMENT

No solid waste is generated during the course of mining.

WATER QUALITY MANAGEMENT

- Mining will be confined to above Ground Water Table (GWT). No mining will be done below GWT.
- Sewage from rest shelter would be treated in Septic Tank soakpit.
- There is no other source for generation or discharge of tradeeffluent.

AIR QUALITY MANAGEMENT

Sand will be mined manually. No mining equipment would be needed. However, diesel operated tippers/tractors would be used for transportation of sand from mine to stockyard.

OPERATION OF DIESEL EQUIPMENT'S –They generate Noxious gases. It will be ensured that all transport vehicles would be repaired & maintainedregularly.

LOADING OF PRODUCT ON TIPPERS –Water will be sprinkled on blasted Sand mass before they are loaded to trucks fortransport.

MOVEMENT OF TIPPERS ON ROAD –Movement of tippers on road generate dust. For mitigation of this pollution following measures will betaken

- ✓ Regular water sprinkling on Haul road by using watertankers.
- ✓ Regular repair of Haulroad
- ✓ All Trucks carrying Sand outside lease area will have PUCcertificate.
- ✓ Transport tippers/traders moving on public road will be covered with tarpaulin.

RISK ASSOCIATED WITH PROJECT ACTIVITIES AND THEIR MITIGATION MEASURES ARE DICUSSED BELOW:

ROAD ACCIDENTS

Transportation of sand along the public road may cause accident which may cause injury. Preventive Measures:

- Ensure speed limit for the haulage vehicle for 40KMPH.
- Regular maintenance of haulageroad
- Appropriate navigational signs informing sensitive area like school andhabitation

64

1

1

- Regular maintenance of the vehicles.

DUST GENERATION

- ✓ No drilling involved
- ✓ Dust mask would be supplied to workers
- ✓ Regular sprinkling of water on road

NOISE GENERATION

Source of noise pollution in the project would be movement of tippers / tractors transporting sand from mine to stock yard. In general tippers / tractors produce a noise level of 75 – 90 (A) measured at distance of 3m from the source.

PREVENTIVE MEASURES

- ✓ Transportation activities would be confined during day time only.
- ✓ There would be a speed limit of 40 kmph for tippers. Higher is speed higher is noise.
- ✓ Regular repair and maintenance of tippers/tractors.
- ✓ Plantation on both sides of haulage road.
- ✓ Tippers having PUC certified will be allowed to be used for sand transportation.

HEALTH HAZARDS

During digging and handling of sand i.e. loading, transportation and unloading of sand, workmen would be exposed to inhalation of fine dust particles. This poses a health hazard.

PREVENTIVE MEASURES

Following mitigation measures would be taken to minimize this impact on health

- ✓ Regular water sprinkling on haulage roads.
- ✓ Tree plantation on both sides of haulage road.
- ✓ Tippers / Tractors carrying sand would be covered.
- ✓ Mask would be provided to workmen employed for digging, loading, transportation and unloading activities

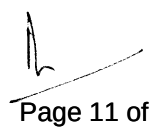
ACCIDENT AT SITE

This is a project with only source of accident at site would be movement of tippers/tractors within mine site for transportation of sand.

PREVENTIVE MEASURES

Following mitigation measures would be taken to minimise risk of road accident-

- ✓ Separate alignment for movement of loaded vehicles coming out of mine site
- ✓ Ensure speed restriction of 10 KMPH within mine site for incoming and outgoing tippers
- ✓ Regular maintenance and repair of haulage vehicles employed for sand transportation
- ✓ No overtaking of transportation vehicles within mine site
- ✓ Proper maintenance of haulage roads



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.

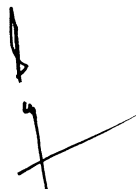
- ✓ Mine road shall be made smooth regularly with a roadroller.
- ✓ Mine road will be cleaned daily to remove fallen rock/stones for smooth transportation.
- ✓ Mine road will be made sufficiently wide to keep two-way traffic.
- ✓ Mine roads will be designed as per the specifications given under MMR1961.
- ✓ 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.

SEAC, Jharkhand has suggested the ToRs in its 115th meeting held on 23th, 24th, 25th, 26th and 27th July, 2024 in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF & CC OM dated 12.12.18 for undertaking detailed EIA / EMP study and SEIAA. Jharkhand has approved the ToRs in its 115th meeting held on 06th & 07th August, 2024.

The TORs prescribed for undertaking detailed EIA study are as follows:

Specific Conditions:

1. 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 "*Ek Ped Ma Ke Naam*" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>).
2. Transportation from the river bed will be done using the existing road.



3. **The Mining Plan has been prepared and approved in consonance with Enforcement & Monitoring Guidelines for Sand Mining, 2020.**
4. **Wet sand will not be transported.**
5. **Pre-monsoon data of current year is to be included in final EIA report.**
6. **Satellite imagery with Geo-Cordinates of pre-monsoon (current year) to be included in the final EIA report.**
7. This TOR letter is subject to Hon'ble NGT order dated 13.09.2018, order dated : 11.12.2018 and MoEF & CC OM dated : 12.12.2018.
8. Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
9. A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
10. All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
11. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
12. Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
13. Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
14. It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.



15. Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
16. The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
17. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
18. Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
19. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
20. Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
21. Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
22. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
23. A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
24. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
25. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered,

04/

6
4

1

endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

26. Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.
27. Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
28. R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
29. One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
30. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the







habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.

31. The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
32. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
33. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
34. Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
35. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
36. Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
37. Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
38. A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
39. Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.



40. Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
41. Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
42. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
43. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
44. Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
45. Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
46. Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
47. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
48. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
49. A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
50. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
51. Besides the above, the below mentioned general points are also to be followed :-
 - a. Executive Summary of the EIA/EMP Report.
 - b. All documents to be properly referenced with index and continuous page numbering.
 - c. Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - d. Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF & CC / NABL accredited laboratories. All the original analysis / testing reports should be available during appraisal of the Project.

GA

h
y

h

- e. Where the documents provided are in a language other than English, an English translation should be provided.
- f. The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
- g. While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF & CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
- h. Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF & CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation
- i. As per the circular no. J-11011/618/2010-IA.II (I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
- j. The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.
52. After preparing the draft EIA (as per the generic structure prescribed in Appendix- III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.
53. The Prescribed ToRs is valid as per O.M. F. No. IA3-22/10/2022-IA.III[E177258], dated 08.06.2022 of MoEF & CC, Govt. of India.

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

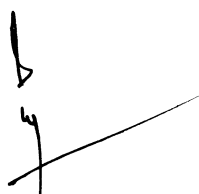
Memo No : EC/SEIAA/2024-25/3211/2024/216

Dated: 13/08/2024

Copy to:

1. Member Secretary, Jharkhand State Pollution Control Board, Ranchi for information and necessary action.







2. Regional Office, Ministry of Environment, Forest and Climate Change, Govt. of India, 2nd Floor, Jharkhand State Housing Board (HQ), Harmu Chowk, Ranchi, Jharkhand – 834002.
3. Member Secretary, SEAC, Jharkhand, Ranchi for information and necessary action.

