State Level Environment Impact Assessment Authority, Jharkhand

Nursery Complex, Near Dhurwa Bus Stand, P.O+P.S-Dhurwa, Ranchi, Jharkhand-834 004
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Letter No.- **EC/SEIAA/2023-24/2988/2023/** Ranchi, Date :

To: **M/s Maa Durga Stone Works,**
Prop. : Shri Soumitro Ghosh S/o Shri Chitranjan Ghosh,
Durga Colony, Raj High School Road, P.O. + P.S. – Pakur,
District – Pakur, (Jharkhand).

Sub: Prescribing of ToR to **"Amlagachhi Stone Mine of M/s Maa Durga Stone Works (Prop. : Shri Soumitro Ghosh) at Village : Amlagachhi, Thana no. : 10, Thana : Maheshpur, Distt. : Pakur, Jharkhand (2.87 Ha)" (Proposal No. : SIA/JH/MIN/444496 /2023) – regarding.**

Ref: Your application no. Nil, dated – 08.10.2023.

Sir,

It is in reference to the project to **"Amlagachhi Stone Mine of M/s Maa Durga Stone Works (Prop. : Shri Soumitro Ghosh) at Village : Amlagachhi, Thana no. : 10, Thana : Maheshpur, Distt. : Pakur, Jharkhand (2.87 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.

Project Category : **B1 – Application for ToR (Cluster)**

EC Application for : **89152 cum / year (max).**
Overburden: 0 cum. during plan period.
DG Set: NA
Crusher- Notproposed

This is a existing project which has been taken for appraisal on 09.10.2023.

Project and Location Details :

Sl.	Parameter		Details
1	Project Name	:	Amlagachhi Stone Mine Project Type – Stone Mine

2	Lessee:	:	**Shri Soumitro Ghosh**	
3	Lease Address	:	Village- Amlagachhi , Block Office .-Maheshpur, Thana- Maheshpur (10) ,District-Pakur , Jharkhand	
4	Lease Area	:	Ha: 2.87	Acres: 7.09
5	Type of Land	:	Non-Forest – Raiyati Land	
6	Project Cost	:	150.7 Lakhs	
7	EMP Budget	:	Capital: Rs. –6.665 Lakhs	Recurring: Rs. 1.64 Lakhs/ year
8	CSR / CER Budget	:	NA	
9	New or Expansion	:	New	
10	Mineable Reserves	:	Cu.M.: 713328	Tonnes: 1925985
11	Mine Life	:	6.61 Years say 7 years.	
12	Manpower	:	30 Person	
13	Water Requirement	:	11.11 KLD (Drinking:0.45 KLD, Dust Suppression: 4.0 KLD, Plantation:6.66 KLD)	
14	Water Source	:	Water will be sourced from abandoned Mine through Water Tanker for Dust Suppression and Plantation and permission from gram panchayat will be taken to fulfill water requirement for mining operation after the grant of Environment clearance.	
15	DG Set / power	:	Nil.	
16	Crusher	:	Not Applicable	
17	Nearest Water Body	:	Ganges River – 34 km in East direction	
18	Nearest Habitation	:	Amlagachhi Village	
19	Nearest Rail Station	:	Pakur Railway Station – 15.85 Km in North-East direction	
20	Nearest Airport	:	Ranchi Airport 325 Km in SW direction.	
21	Nearest Forest	:	DFO Pakur Division letter no.- 835, Dated- 24.07.2019 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.	
22	Road & Highways	:	MDR (Maheshpur-Hiranpur Road) -0.68 KM in West Direction	

CO-ORDINATES

Geo-Coordinates of all corner points of Demarcated Block Boundary (GPS Co-ordinates) Datum: WGS 84		
Corner Point	**Latitude**	**Longitude**
1	24°33'21.78" N	87°43'23.80" E

2	24°33'21.20" N	87°43'23.24" E
3	24°33'21.13" N	87°43'19.89" E
4	24°33'21.73" N	87°43'18.75" E
5	24°33'21.61" N	87°43'17.98" E
6	24°33'21.22" N	87°43'16.49" E
7	24°33'21.82" N	87°43'16.48" E
8	24°33'22.59" N	87°43'16.68" E
9	24°33'23.89" N	87°43'13.96" E
10	24°33'26.17" N	87°43'15.12" E
11	24°33'25.89" N	87°43'16.79" E
12	24°33'25.92" N	87°43'19.21" E

LAND DETAILS :

KHATA NO.	PLOT NO.
26	476
34	477
26	478

STATUTORY CLEARANCES

1	LOI / Lease docs	:	i. The Letter of Intent (LoI) has been issued by DMO, Pakur vide letter no. 1537/M, dated 13.09.2019. ii. Lease Deed : 07.01.2020 to 06.01.2030
2	CO	:	The CO, Maheshpur vide letter no. 511/Ra, dated 17.07.2019 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyan & Register II.
3	DMO	:	DMO, Pakur vide memo no. 2058/M, dated 11.09.2023 certified that 04 other mining lease area (3.16 Acre, 6.57 Acre, 6.58 Acre & 6.88 Acre) exists within 500 m radius from proposed project site and total area is 30.28 Acre (12.25 Ha).
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 1435, dated 25.07.2019 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Lake Bird Sanctuary.
5	DFO Forest Distance	:	Division Forest Officer, Pakur Forest Division vide letter no. 835, dated 24.07.2019 ertified that the distance of notified forest is 500 meter from proposed project site.
6	DSR	:	This project is mentioned in District Survey Report (DSR) of Pakur district.

7	Gram Sabha	:	Gram Sabha conducted on 05.08.2019.
8	Mine Plan Approval	:	Approved by Deputy Director Mines, Santhal Pargana Circle, Dumka vide Letter No. 413/DDM, dated 15.09.2023.
9	Production Report	:	Production figure issued by DMO, Pakur vide memo no. 2057/M, dated 11.09.2023.
10	Consent to Estblish (CTE)	:	CTE issued by JSPCB vide Ref. no. : JSPCB/HO/RNC/CTE-7974674 /2020/283, dated 21.07.2020.
11	Consent to Operate (CTO)	:	CTO issued by JSPCB vide Ref. no. : JSPCB/RO/DMK/CTO-12531251 /2022/54, dated 24.03.2022.
12	Previous Environmental Clearance (EC)	:	Previous EC granted by SEIAA, Jharkhand vide letter no. EC/SEIAA/2018-19/2223/2019/678, dated 08.11.2019.
13	Compliance report of previous EC	:	Compliance report certified by Regional Office cum Laboratory, JSPCB, Dumka vide Ref. no. : 1943, dated 16.09.2023.

WORKING DETAILS

1	Mining Method	:	Opencast Mechanized Mining	
2	Quarry Area	:	Plan period – 2.08 Ha.	Conceptual stage –2.08 Ha.
3	Waste Generation	:	Plan Period : 0 Cum.	Conceptual Stage – 0 Cum.
4	Stripping Ratio	:	1:0.05	
5	Working Days	:	300 days/year	
6	Benches: size & No	:	6m x 6m, No. of benches -7	
7	Elevation of Mine	:	177 AMSL	
9	Ultimate Working Depth	:	133 AMSL	
10	Water Table	:	111 MSL and	
11	Topography of Mine	:	Gently sloping area	
12	Explosive Requirement	:	80 Kg Slurry explosives/day	
13	Diesel/Fuel requirement	:	HSD – 1060 liters / day (318 KL/year)	

PRODUCTION DETAILS

SUMMARY OF YEARWISE OF PRODUCTION						
Years	**Production In Cum/Year**	**Production In Cum/Day**	**O.B Production in Tonnes/Year**	**Production In Tons/Year**	**Prod. In Tons. /Day**	**Bench RL in meters**
1st	81312	271	0	227674	759	113-101
2nd	88928	296	0	248998	830	107-101
3rd	84448	281	0	236454	788	101-95
4th	88368	295	0	247430	825	101-89
5th	89152	297	0	249626	832	95-83
Total	**432208**	**288 (Avg.)**	**0**	**1210182**	**637 (Avg.)**	**30**

LAND USE

Existing Land Use pattern

Pattern of Utilization	**Present/Existing land use pattern in (acres)**	**Present/Existing land use pattern in (Ha)**
Mining Activities	5.13	2.08
Offices/ Store /crusher/ Magazine etc.	0.02	0.01
Dumping	0.14	0.06
Mining Road	0.06	0.02
Garland drain	0.17	0.07
Settling pond	0.06	0.02
Green belt/Safety Zone	1.18	0.48
Unutilized	0.33	0.13
Total	**7.09**	**2.87**

Land Use Pattern for Current Plan Period:

Pattern of Utilization	**Present/Existing land use pattern in (acres)**	**Present/Existing land use pattern in (Ha)**
Mining Activities	5.13	2.08
Offices/ Store /crusher/ Magazine etc.	0.02	0.01
Dumping	0.14	0.06
Mining Road	0.06	0.02

Garland drain	0.17	0.07
Settling pond	0.06	0.02
Green belt/Safety Zone	1.18	0.48
Unutilized	0.33	0.13
Total	**7.09**	**2.87**

Land Use Pattern after Life of the Mine:

attern of Utilization	**Land used at the conceptual stage ie end of mine life in (acres)**	**Land used at the conceptual stage ie end of mine life in (Ha)**	**Area to be converted in the conceptual period.**
Mining Activities	5.13	2.08	Water body
Offices/ Store /crusher/ Magazine etc.	0.02	0.01	Plantation
Dumping	0.14	0.06	Plantation
Mining Road	0.06	0.02	-
Garland drain	0.17	0.07	-
Settling pond	0.06	0.02	-
Green belt/Safety Zone	1.18	0.48	Green Belt
Unutilized	0.33	0.13	Plantation
Total	**7.09**	**2.87**	-

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION		Area/Length	No of Trees
1	Green Belt& Other reclaimed area	:	0.48 Ha	1200
2	Haul /Approach Road	:	0.20 Km.	133 Trees both side approach road.

Solid Waste Management

- No overburden will be generated in mining plan period which will used in maintenance of mine road and village road. O.B. Dump of total area 0.04 Ha. has been proposed.

Water Pollution Control Measures:

- Mining operation will be restricted to the depth of 29m from surface level.
- Quality of dug well will be monitored, in order to ensure the quality of water is not affected.

Air and Noise Pollution Control Measures:

- Dust suppression measures like spraying / sprinkling of water to keep the surface wet.
- Overloading of the truck / tractor trolleys will not be done.

As the only impact is due to transportation of soil through village roads, emphasis will be given on the following points:

- Carts or tractor-trolleys will be developed on village roads.
- Tractors-trolleys will be well maintained and PUC certified.
- Timely maintenance of vehicles and their silencers to minimize vibration and sound.
- Minimum use of horns in the village area and silence zone (if any) as applicable.

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 protecting clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

RISK ASSESSMENT

HAZARD IDENTIFICATION & RISK ASSESSMENT (HIRA)

The entire mining operation will be done under the supervision of the Mines Engineer/Mines manager having second class mines manager's certificate of competency and supported by a team of competent persons. Nevertheless, the following natural/industrial problems may by encountered during the mining operation:

- Accident due to Blasting / Fly-rock generation
- Slope failure at Mine faces
- Accident due to sliding of Over Burden dumps
- Accident due to Transportation or movement of heavy machineries
- Operation of mining equipment
- Accident due to use of explosive
- Accident due to storage of Fuel
- Filling of Mine due to excessive rain

RISK AND MITIGATION MEASURES

BLASTING

Risk

- Most of the accidents from blasting occur due to the generation of fly-rocks, as they may sometimes go even beyond the danger zone, mainly due to overcharging of the shot-holes or as a result of certain special features of the local ground. Flying rocks are encountered during initial and final blasting operations.
- Vibrations also lead to displacement of adjoining areas. Dust and noise are also problems commonly encountered during blasting operations.
- Risk associated with storage and use of explosive

Mitigation Measures

- Adequate charge per hole with delay blasting will be used to minimize fly-rock, vibration and noise
- Before starting charging, clear audible warning signals by Sirens will be given so that people nearby can take shelter.

- Blasting will be done during the lunch interval, i.e. from 1.00 to 2.00 pm.
- Holes will be drilled in square/scattered pattern.
- Shot firing will be usually done with the help of safety fuse & ordinary detonator/ electric shot firing with delay detonators as per requirement.
- Adequate shelters or other protective structures shall be provided to the workers at all times;
- The shot fired shall give sufficient warning by effective signal over the entire area falling within a radius of 500 m
- Proper, safe and careful handling and use of explosives by competent Blasters having Blaster's Certificate of Competency issued by DGMS
- Conventional explosives shall be used in their original cartridge packing and such cartridge shall not be cut to remove explosive for making cartridge of different size.
- Explosives shall be conveyed in special containers.
- The holes which have been charged with explosives will not be left unattended till blasting is completed.

OVER BURDEN

Risk

The overburden dumps may cause landslides. High overburden dumps created at the quarry edge may cause sliding of the overburden dump or may cause failure of the pit slope due to excessive loading, thereby causing loss of life and property. Siltation of surface water may also cause run-off from overburden dumps.

Mitigation Measures

- To prevent the failure of overburden slopes, especially during the rainy season, proper garland drain & bund are constructed around the dump.
- To prevent this, height of overburden dumps will be restricted. Further, no stone or loose rock or loose tree will be allowed to remain within 3 meters of the edge of the quarry. To prevent siltation of surface water, retaining wall will be constructed on the down side of each OB dump.

ACCIDENTS DUE TO TRANSPORTATION AND MOVEMENT OF MINING MACHINERIES

Risk

Most of the accidents occur during transportation by tippers/ trucks and movement of Mining machineries.

Operations of jackhammers are often attributable to mechanical failures and human errors.

Mitigation Measures

- This can be prevented by regular training of all vehicle/machinery drivers/operators, regular maintenance of equipment and ensuring safe operations.
- All safety precautions and provision of MMR 1961 shall be strictly followed during all mining operations.
- Regular maintenance and testing of all mining equipment as per manufacturer's guidelines.
- All transportation within the main working area should be carried out under the direct supervision and control of the management;
- The vehicles must be maintained in good repairs and checked thoroughly at least once a week by a competent person authorized for this purpose by the management;
- Broad signs should be provided at each and every turning point specially for the guidance of the drivers of vehicles.
- To avoid dangers while reversing the trackless vehicles, especially at the embankment and tripping points, all areas for reversing of lorries should, as far as possible, be made man free, and there should be a light and sound device to indicate reversing of trucks; and
- A statutory provision of the fence, constant education, training etc. will go a long way in reducing the incidence of such accidents.

FUEL STORAGE

No major storage of fuel envisaged in the mining lease area

WATER LOGGING

Risk

Filling of mine pit with excessive rain

Mitigation Measures

- Provision of adequate capacity pumps for pumping out water from the mining pit with standby arrangements.
- Checking and regular maintenance of garland drainage and earthen bunds to avoid any inflow of surface water into the mine pit.
- Proper drainage will be maintained to eliminate inundation of working pits during rains from run-off water. Suitable garland drain will be provided around pit along with sedimentation pits on each side.
- There is no danger of flood or inundation as the ground level is well below the plateau top, where mining will be carried out.

SAFETY MEASURES AT THE PROPOSED MINE

- The opencast mines have been planned for working with shovel tipper system which requires proper benching not only for slope stability but also for movement of tippers and other heavy machinery. The inclination of the quarry sides at the final stage i.e. at the dip most point will not exceed 400 to the

horizontal. (This angle is measured between the line joining the toe of the bottom most bench to the crest of the top most bench and the horizontal line);

- The gradient of the haul road inside the pit, access trench and on the dumps will not be steeper than 1 in 16
- The slope of the sides of the OB dump to the horizontal will not exceed 300, and the height of the OB dumps has been restricted to a max of 3 m;
- The quarries will be protected by garland drains around the periphery for storm water drainage;
- A minimum safe distance of 100-m will be kept between the surface edge of the quarry and the nearest public building, roads etc. When the surface edge of the quarry approaches within a limit of 300 m from any road, public building special permission from DGMS will be taken to conduct controlled blasting to prevent damage/injury to public life and property;
- All mining operations both within the quarry and outside will be conducted as per the conditions laid down by DGMS and under the strict supervision of competent persons appointed under Metalliferous Mines Regulations, 1961.

CARE AND MAINTENANCE DURING TEMPORARY DISCONTINUANCE:

In case of emergency arise as situation of temporary discontinuance due to court order or due to statutory requirements or any other unforeseen circumstances pit will be fenced and locked properly so as no one can enter in pit. All plantation will be protected with all due care for their survival. Maintenance and monitoring of discontinued mining operations i.e. maintenance of haul roads, will be done in view of re-open in near future.

SEAC, Jharkhand has suggested the ToRs in its **109th** meeting held on **09th, 10th, 11th, 12th and 13th October, 2023** 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 **110th** meeting held on **27th, 28th & 29th October, 2023**.

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

Specific Condition:

1. As per OM F. no. IA3-22/10/2022-IA.III(E177258), dated 08.06.2022 of MoEF&CC, Govt. of India Project Authority will obtained certified compliance report from IRO (MoEF&CC), Ranchi and submit the same with EIA / EMP report.
2. 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.

3. 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.
4. 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.
5. A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
6. 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.
7. 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).
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.

13. 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.

14. 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.

15. 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.

16. 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.

17. 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.

18. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.

19. 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.

20. 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.

21. 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, 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.

22. 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.

23. 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).

24. 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.

25. 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.

26. 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.

27. 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.

28. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.

29. 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.

30. 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.

31. 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.

32. 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.

33. 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.

34. 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.

35. 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.

36. Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.

37. 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.

38. 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.

39. 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.

40. 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.

41. 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.

42. 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.

43. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.

44. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

45. A Disaster management Plan shall be prepared and included in the EIA/EMP Report.

46. 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.

47. 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.

    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.

48. 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.

49. 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/2023-24/2988/2023/** 1104 Dated: 02/11/2023

Copy to:

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

02/11/2023
Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand