

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL  
COMMITTEE, ODISHA HELD ON 30<sup>th</sup> SEPTEMBER, 2020**

---

The SEAC met on 30<sup>th</sup> September, 2020 at 11:00 AM through video conferencing in Google Meet under the Chairmanship of Sri. B. P Singh. The following members were present in the meeting.

1. Sri. B. P. Singh	-	Chairman
2. Prof (Dr.) H. B. Sahu	-	Member
3. Dr. D. Swain	-	Member
4. Prof. (Dr.) P.K. Mohanty	-	Member
5. Sri. J. K. Mahapatra	-	Member
6. Sri. K. R. Acharya	-	Member
7. Prof.(Dr.) B.K. Satpathy	-	Member
8. Dr. Sailabala Padhi	-	Member
9. Dr. K.C.S Panigrahi	-	Member
10. Prof. (Dr.) Sanjay Kumar Patnayak	-	Member

The agenda-wise proceedings and recommendations of the committee are detailed below.

**ITEM NO. 01**

**PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. CHROME SAGAR FOR CHROME ORE BENEFICIATION UNIT OF THROUGHPUT CAPACITY 18,500 TPA & REFRACTORY MIX PLANT, AT VILLAGE PUBALA, DISTRICT OF JAJPUR, ODISHA - EC**

1. This is a proposal for Environmental Clearance of of M/s. Chrome Sagar for Chrome Ore Beneficiation Unit of throughput capacity 18,500 TPA & Refractory mix plant, at village Pubala, district of Jajpur, Odisha of Sri Rajendra Kumar Thatoi.
2. The project falls under Category 2 (b), B2 (Throughput <20,000 TPA) as per schedule of EIA Notification dated 14th Sep, 2006, as amended from time to time.
3. The proposed expansion project is for additional installation of chrome ore beneficiation unit with throughput of 18500 TPA within the existing campus of M/s Chrome Sagar at Vill: Pubala, P.O. Sukinda, Dist: Jajpur, Odisha.
4. The existing project for production of Chrome mortar and Chrome monolithic and again obtained Consent to establish for the existing chrome monolithic unit and Chrome refractory mortar of 12,000 TPA capacity obtained from Odisha state pollution control Board vide letter no. 1482/KNG/IND-266 dated 09.08.2019 and Consent to Operate for the unit has been obtained vide letter no. 1687/KNG/IND-266 dated 07.09.2019
5. ToR was issued vide Online Proposal No: SIA/OR/IND/48689/2019 and SEIAA File No: 48689/09-IND/12-2019. The presentation at SEAC, Odisha for approval of ToR was held on 29.01.2020 and ToR Approved Vide letter no: 8365/SEIAA dated 17.07.2019. Application for Environment Clearance was made on 21.08.2020.
6. The proponent has applied to consider their project as Category-B2 as per MoEF&CC, Govt. of India O.M. No. J/13012/12/2013-IA-II(I), dated 24.12.2013 as throughput of Mineral Beneficiation activity is less than 20,000 TPA involving only physical beneficiation.

7. The MoEF&CC, Govt. of India O.M. No. J/13012/12/2013-IA-II(I), dated 24.12.2013 stipulates the Mineral Beneficiation activity listed in the schedule as Category-B will be treated as Category-B2 with throughput  $\leq$  20,000 TPA, involving only physical beneficiation.
8. The total land of M/s Chrome Sagar is 2.2 Acres which is purchased by the project proponent. No additional land is required for the above additional installation of beneficiation unit. No forest land involved. The nearest river is Brahamani river located at a distance of 8.5 Km from the project site. There is the proposal for construction rain water harvesting structure for fulfilment of water requirement for the project over an area of 728 Sq.m.
9. The land area required for the project will be 2.2 acres which comes under agricultural waste land category which has been converted Gharabari Kissam and belongs to the project proponent. Plot No: 1138, 1139/1640 & 1278/1641; Khata No.: 267/39.
10. The proposed area is featured under the topo sheet No. 45T/13 bounded by Latitude:20° 12' 36"N Longitude:85° 31' 31"E. The mining lease area is also accessible NH-200 at 2.5 km. and Sukinda – Hatibari road 5 km. The nearest railway station is Sukinda Road railway station and Jajpur road railway station which are situated at a distance of 17 km and 25 km from the proposed area. Nearest airport is Biju Pattnaik Bhubaneswar Airport 80 Kms from project site. Nearest river is Brahmani River at 9.5 km and Jhamra river at 5 km. Nearest town is Sukinda at 4.5 km. Nearest forest Pubala Protected forest at 0.5km. Nearest habitation is within 3km from project site. There is no wild life sanctuary, corridor, National park, biosphere reserve located within 10 Km buffer zone of the project site.
11. Raw material linkage has been established for the proposed plant from M/s B.C. Mohanty Mines, Sukinda and from OMC Ltd. The project is well accessible for transportation of raw material and product. The project is accessible through a 50 ft wide road which connect to NH – 200 and Sukinda road railway station also located at a distance of 17Km from the project site.
12. The process is a beneficiation process of conversion of low grade chrome ore having content less than 40% of Cr<sub>2</sub>O<sub>3</sub> into semi high grade ore having content 50-65% of Cr<sub>2</sub>O<sub>3</sub>.
13. Generation of solid waste (tailings generated = 3600 TPA having <10% Cr<sub>2</sub>O<sub>3</sub>) will be properly stored in an impervious platform in earmarked area and will be blended with chrome refractory mortar and sold. So there will be no waste generation from the proposed project. However taking into consideration of maximum storage of 6 years an area of 0.648 Acres has been demarcated for tailing pond.
14. **Total Water Requirement:** The total water requirement of the project is estimated as 68 KLD. The makeup water requirement for beneficiation plant will be 5 KLD and 2 KLD water required for dust suppression and green belt development will be sourced from Rain water reservoir and the drinking water requirement of 1 KLD will be sourced from bore well.
15. **Power Requirement:** The total power requirement is estimated as 100 KVA. It is proposed to draw the power from the NESCO.
16. **Green area:** Greenbelt is being/ will be developed in 2938 Sq.m 33 % of total project area. There is the proposal for plantation of 675 saplings within the project site.

17. **Baseline Environmental Studies** were conducted during winter season i.e. from 01-December-2019 to 29th February 2020. Ambient air quality monitoring has been carried out at 8 locations during 01-December-2019 to 29th February 2020 (winter season) and the data submitted.
18. No/ R&R is involved. The proposed expansion is within the existing plant premises without any further land acquisition.
19. The tailing generated from the project will be 6500 TPA (10% Cr<sub>2</sub>O<sub>3</sub>) which will be completely utilized in the existing chrome monolithic unit resulting in zero discharge from the proposed beneficiation plant.
20. The project generates employment opportunities for 10 personnel which includes operator -2, supervisor 2, 3 no of semi-skilled labour and 3 no of unskilled labour.
21. The project has been considered under B2 Category (Mineral beneficiation with throughput <20,000 TPA) and exempted from public hearing.
22. The capital cost of the project is ₹ 1.05 Crores and the capital cost for environmental protection measures is proposed as ₹ 16 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as ₹ 4.5 Lakhs. The detailed CER plan has been provided in the EIA and cost of CER will be 9.5 Lakhs.
23. The proponent has mentioned that there is no court case or violation under EIA Notification for the project or related activity.
24. The Environment consultant **M/s Kalyani Laboratories (Pvt) Ltd. Pahala, Bhubaneswar** along with the proponent has made a briefing on the proposal before the Committee.

Considering the information / documents furnished by the proponent and presentation made by the consultant, the SEAC decided to take decision on the proposal after receipt of the following information / documents from the proponent followed by site visit of sub-Committee of SEAC.

- (i) Detailed proposal for Zero Liquid Discharge (ZLD) with water balance.
- (ii) Tailing pond capacity is exactly to the waste generation which might overflow / leaked. This shall be clarified how it will be managed. Showing tailing pond design with dimensions taking in to account tailing generation of 20MT/day (32 M<sup>3</sup>/ day) and the waste water inside it.
- (iii) Adequacy of Tailing pond, its capacity and steps to prevent leaching of hexavalent chromium shall be furnished.
- (iv) Detailed design and specification's of ETP and its adequacy.
- (v) Detailed design and specification of chrome ore storage area.
- (vi) Mitigation measures to control PM<sub>2.5</sub> and PM<sub>10</sub>. Predictive simulated value of PM<sub>2.5</sub> and PM<sub>10</sub> with commissioning of this project and surrounding similar new projects be submitted using the model for three dimensional concentration.
- (vii) Soil testing report showing actual value of hexavalent chromium.
- (viii) Traffic density study result is to be submitted w.r.t future vehicular movements. Traffic density study process details be furnished. Are MCC AND MCTC methods of traffic density study is recommended for this kind of traffic? Is a standard commission viza-vis the findings of the study be indicated. Has this study been undertaken with

important traffic intersection points at public roads i.e NH/SH/District road etc?. The study and the recommendation be rectified by a domain expert. Otherwise, a fresh study be undertaken by a domain expert .

- (ix) Status of road side plantation on kaliapani plant road 25 km with steps proposed for its continuity.
- (x) Tabulated form of existing features and proposed features is to be submitted.
- (xi) Details of Rain water harvesting. Adequacy of rain water harvesting pond with scope for increasing its capacity shall be furnished.
- (xii) Five Reserve forests are nearby to the project site. Details about how to reduce impact of chrome leaching to the nearby forest area. Additional impact on the environment due to the establishment of chrome ore beneficiation unit.
- (xiii) Alternative Biological Method for conversion of Hexavalent Chromium.
- (xiv) Land schedule and kissam of land.
- (xv) Land conversion document for industrial use.
- (xvi) Certificate from the State Pollution Control Board w.r.t. to compliance to Consent to Establish and Consent to Operate conditions of existing units.
- (xvii) Area required for the expansion.
- (xviii) Existing product with capacity.
- (xix) Year of commencement of production of existing unit.
- (xx) Detailed Material Balance.
- (xxi) Temporary changes in condition of nearby forests and contribution of project in it with steps for improvement shall be furnished.
- (xxii) Leachate management from tailing stack and tailing disposal management be submitted if tailings are not used just in time on generation.
- (xxiii) Has any socio-economic study undertaken? If so, the report be submitted. Is not, be undertaken by an institute of repute and report submitted.

#### **ITEM NO. 02**

#### **PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR DHUNKAPARA DECORATIVE STONE MINES OVER AN AREA 23.337 HA (TOTAL AREA UNDER CLUSTER-55.8HA) IN DHUNKAPARA VILLAGE, TAHASIL- POLSARA IN THE DISTRICT-GANJAM, ODISHA OF SMT M.M. ANNAPURNA (PROPRIETOR) - EC**

1. This is a proposal for Environmental Clearance for Dhunkapara Decorative stone mines over an area 23.337 ha (Total area under cluster-55.8Ha) in Dhunkapara Village, Tahasil- Polsara in the District-Ganjam, Odisha of Smt M.M. Annapurna (Proprietor).
2. A cluster of Decorative stone mines at-Dhunkapara, covering an area of 55.8ha in village Dhunkapara under Polosara tahasil of Ganjam District, Odisha owned by three lessees and leased out for 20yrs as follows.
  - a) M/s Iliyas Granites, M L area allocated 14.933 ha, Khata No- 1382 Plot No- 1261/p,1265, 1271, 1272/p.
  - b) M/s Amar Jyoti Granites, M L area allocated 17.530 ha. Khata No- 1382 Plot No- 1262, 1263, 1264, 1274 & 1276.
  - c) M/s M. Mathrusri Annapurna, M L area allocated 23.337ha, Khata No- 1382 Plot No- 1275,1276, 1277, 1278, 1279 &1497

3. As per order issued by MoEFCC dated 24.12.2013 for cluster equals or exceeding 25 ha, mining operations in any of the mine lease areas in the cluster will be allowed only if the environmental clearance has been obtained in respect of the cluster.
4. TOR granted by SEAC in its meeting held on Dt: 17.03.2018 and issued vide letter No.301/SEAC-122 on 23.04.2018.
5. The mining plan is prepared as per rule 15 and 12 of GCDR and rule 21 of OMMC,2016. The total estimated reserve is for 16, 83,323 m<sup>3</sup> and the production from plan period will be maximum 1,95,660 m<sup>3</sup> in plan period. Geologically the reserve is categorized as Charnockite in the name of commercial granite.
6. The entire M.L area is in hilly waste land under the revenue class of Parbat and the tenant is "Abad Ajogya Anabadi" of Govt. of Odisha. The proposed mining is by open cast and semi mechanized method with deployment of machines like Jack Hammer, Drill Compressors, Hydraulic Excavators and Tippers. This will be a single shift mining, only during the day time on six days a week basis. Height and width of the benches will be maintained at 6m each and overall slope angle at 45° with the horizontal. As there is hardly any overburden, therefore most of the waste would be from dressing of the blocks and the rejected blocks which will be stacked in a designated area as per the mining plan.
7. The M.L area is covered in Survey of India Toposheet no E45A13 (74A/13) and bounded by latitude:19° 46' 13.20" N to 19° 46' 28.70" N and Longitude: 84° 48' 12.20" E to 84° 48' 45'.20" E. There is no agricultural or grazing land within the lease hold area. Close to the lease boundary in the same village there is another similar quarry of Iliyans Granites & Amar Jyoti Granite. This ML area is accessible from Jagannathpur through NH 5 via Polosara and 1 km from Buguda-Polosara main road with connecting moorum road. The nearest railway station is at Humma located at a distance of 80 km from the ML area. The nearest habitation is at Dhunkapara at a distance of 750 m from the lease boundary.

8. The details of the mines in the cluster are as follows:

Lease Name	ML area in ha	Status	Volume of proved mineable reserve (cum) in ML area	Volume of Decorative salable stone in m <sup>3</sup>	Excavation in m <sup>3</sup> in plan period	Production in m <sup>3</sup> in plan period (Block + Khanda)	Waste generation in m <sup>3</sup> in plan period	Waste disposal
Smt M M Annapurna	23.37	New	84,16,618	16,83,323	1,05,000	21,000 decorative stones (salable) 21,000(at present non-salable)	63,000	31,500 in road construction & maintenance. 31,500 to be dumped on 0.768ha land with 5m avg height.

M/s Iliyas Granites	14.933	Operating EC has been granted and operating since 2016	16,07,125	7,23,206	90,660	40,797 decorative stones (salable) 18,132(at present non-salable)	31,731	Around 33% will be used in road construction & maintenance and balance will be dumped on 0.512ha area with 8m avg height.
M/s Amar Jothi Granites	17.53	New	-	-	-	No approved Mining Plan available	NA	

9. **Baseline data** generation was during Summer (Mar – May 2017).
10. **Public Hearing** conducted by OSPCB on 18.09.2019, 11AM at Gram Panchayat office , Dhunkapara. Sri Laxmi Kanta Sethi, A.D.M, Ganjam, presided over the meeting.
11. **Water Requirement** – 1.35 KLD of water shall be required for domestic and mining activities and will be sourced by tubewells.
12. **Power Requirement** - 500 KVA for both to be sourced from DG sets.
13. **Employment Potential:** Total number of employee will be around 35 which includes skilled, semi-skilled & unskilled category in the mine.
14. M/s M M Annapurna has no plan for blasting and will have semi mechanized mining with no pollution. Budgetary provision has been kept for protection of this Schedule-I Pea fowl by planting tall trees for their shelter, water tanks in summer and creating awareness among local people against hunting if any of these birds for feathers trading. The temple will not be demolished.
15. **CER Activities** -The company will spent Rs.2 lakhs against CER activities which includes plantation of tall tree sapling, conservation of peacocks, maintenance of approach road and installation of small water tanks for public usage in summer.
16. M/s M M Annapurna Mines has planned to develop green belt over an area of 2.198 ha in 7.5m safety zone along lease boundary at the end of plan period with 1500 trees consisting of Mango, Neem, Mahaneem, Chakunda, Accacia etc
17. The **project cost** is Rs.176.42 lakhs. Funds for Environment Management : A sum of Rs.6.75 Lakh will be spent towards capital cost for EMP and a sum of Rs.97,000 will be spent towards annual recurring cost of EMP22.0 Lakhs (Capital).
18. The Environment consultant **M/s Global Tech Enviro Experts Pvt. Ltd., Bhubaneswar** along with the proponent have made a detailed presentation on the proposal before the Committee.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Global Tech Enviro Experts Pvt. Ltd., Bhubaneswar** the SEAC decided to take decision on the proposal after receipt of the following information / documents from the proponent.

- (i) Detail Management of erosion as it a sloppy land.
- (ii) Mitigation measures to reduce impact on mining as Baghua Dam is close to project site.
- (iii) Minutes of public hearing to be submitted.
- (iv) Details of microorganism activities on that area to be studied.
- (v) Details of plantation plan to be done alongside periphery of cluster to conserve Blackbuck species.
- (vi) Details of drainage plan proposed.
- (vii) Mitigation measures to be taken to reduce fluoride content in soil and water.
- (viii) Blasting provision is there or not? This has to be clarified.
- (ix) Details of habitational area and distance from the mine.
- (x) Details of other mines within 500 meter radius of the periphery of the mine.
- (xi) Certificate of concerned Mining Officer about cluster approach.
- (xii) Details of past year-wise production.
- (xiii) Periphery of cluster, width of GB proposed and no of plants to be planted be furnished.
- (xiv) Size of garland drain, retaining wall around waste dump with justification. Adequacy of area assigned for waste dump.
- (xv) Indicate geo-coordinates with longitude and latitude of the river indicated to be at 700 mtrs distance.
- (xvi) Details of silt management be submitted.
- (xvii) Traffic density study at important intersection with public roads and inside the premises as well as intersections of cluster mines by a domain expert be submitted.
- (xviii) MOM of public hearing be submitted. Indicate the mitigation measures of the pollution and environmental issues and CER raised during public hearing as per MOM in physical terms with definite time frame.

### **ITEM NO. 03**

**PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF WESTERN INTEGRATED WASTE MANAGEMENT FACILITY PVT. LTD. FOR ESTABLISHMENT OF COMMON HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITY (CHWTSDF) OVER AN AREA 70 ACRES AT VILLAGE- PATRAPADA, TAHASIL-PARJANG, DIST- DHENKANAL OF SRI. SWAYAM PRAKASH JENA, MD - ToR**

1. The proposal was considered by the Committee to determine the "Terms of Reference (ToR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2 it006 and amendment thereafter.
2. The proposal is for Common Hazardous Waste treatment, storage and disposal facility (CHWTSDF) at Patarapada, Teshil-Parjang, Dist-Dhenkanal, Odisha by M/s. Western Integrated Waste Management facility Pvt. Ltd. M/s Western Integrated Waste

Management Facility Pvt. Limited (WIWMFL), is a company incorporated under companies act, 1956 and promoted by M/s. SJ Environmental Solutions.

3. M/s. Western Integrated Waste Management facility Pvt. Ltd took active interest and approached Odisha Industrial Infrastructure Development Corporation and State Pollution Control Board to set up another TSDF in Western Odisha to cater the need of Western Odisha Industries.
4. As per EIA Notification dated 14<sup>th</sup> Sept, 2006, as amended from time to time; this project falls under Category "B", Project or Activity 7 (d). (EIA Notification dated 14th Sep, 2006 as amended on 2009).
5. With the present quantities of HW generated in the State of Odisha only one TSDF is operational. Moments study results showed that the ideal location to setup another TSDF is at Western Odisha as it has the lowest effective distance from the other operational CHWTSDF, Sukinda. Effective distance of transportation to CHWTSF, Sukinda to and from all the districts is 800 km. However due to site characteristics, the next best location is Deogarh Cluster. With the new initiatives of the Government of Odisha for rapid industrialization, the waste quantity is likely to grow up necessitating the establishment of Integrated Waste Management facility with provisions for Hazardous Waste Treatment, storage and disposal.
6. Different Type of Industries Existing in Sambalpur, Jharsuguda, Bolangir and neighbouring districts
  - Production of Aluminium, Mining, (Districts of Jharsuguda and Sambalpur)
  - Production of Iron and steel including other ferrous alloys, steel rolling etc. (Districts of Jharsuguda, Sambalpur, Sundergarh)
  - Power plants, Cement units (Districts of Bargarh,) Present in most of the districts
  - Production/industrial use of synthetic dyes intermediates and pigments.
  - Production of Refractory Bricks (Rajgangpur) and Rourkela.
  - Electro plating, Lead acid batteries recycling units.
  - Production, use and formulation of pesticides including stock-piles.
7. Odisha Industrial Infrastructure Development Corporation (IDCO) has allotted requisite plot of land at Village Patarapada in the District of Dhenkanal. The project is located a Latitude 20°52'51.3" North & Longitude 85°20'33.3" East. The proposed site is on the outskirts of the village Patarapada on the side of Parjang-Patarapada district major road in Dhenkanal District of Odisha. The area of plot is 70 acres and the proposed facility will cater the needs of all hazardous waste generated in surrounding industries. A greenbelt development plan will be prepared and implemented along with the project. Total green belt area shall be of 23.1 acres (33% of 70.0 acres). The main objective of the greenbelt is to provide a barrier between the plant and the surrounding areas.
8. The Climate of Dhenkanal District has a moderate climate. The District experiences hot with high humidity during April and May and cold during the winter months, i.e. December and January. The monsoon generally breaks during the month of June with the average annual rainfall being 1421.1 mm.
9. The total Capacity of the proposed project of secured landfill and stabilization treatment will be 50000 TPA (Direct landfill: 30000 TPA and Treatment/Stabilization: 20000 TPA).



The Facility is located strategically at Dhenkanal District which is the Common Boundary of Industrial cluster like Jajpur, Angul, Cuttack and Keonjhar.

10. The project involves landfill in 40 acres area with volume of 125000 m<sup>3</sup> over an area of 4.00 acres with 5 mts below ground and maximum 10 mts above ground filling. Considering average bulk density of 2 kg/m<sup>3</sup>, for 50,000 TPA, the landfill will be filled in 5 years period. For future expansion on 16 acres land, the operation will continue for another 20 years period. The total landfill is planned for total 25 years of operation after which it will be capped as per CPCB guidelines. It will be monitored for 30 more years post closure as per CPCB guidelines and records maintained according.
11. **Water Requirement:** Underground water will be used for day to day water requirement and maximum water consumption will be 20 kl/day. The waste water will be treated and waste water will be used in greenbelt. Leachate and effluent from landfill will be treated in Effluent Treatment plant (ETP) with capacity of 10 KLD and Solar evaporation pond (SEP).
12. **Manpower:** During construction phase, the labours and workers will be hired from local village. The total manpower required in construction phase will be 100 and in operation phase will be 60.
13. **Power Requirement:** The power requirement will be met through 420 KVA connecting loads of Central Electricity Supply Utility, Odisha (CESU). In case of power failure, one D.G. Set shall be used (124 KVA capacity) in Emergency only. HSD at rate of 3KL/Month will be used as fuel in D.G. set.
14. **Project Cost:** The estimated cost of the Project is approximately Rs.42 Crore. M/s Western Integrated Waste Management Facility Pvt. Limited shall be an important endeavour to mitigate the degradation of environment in the region. The Facility is designed to cater to over more than 200 industrial units within Odisha who are generating Hazardous waste.
15. M/s Western Integrated Waste Management Facility Pvt. Limited shall be an important endeavour to mitigate the degradation of environment in the region. The Facility is designed to cater to over more than 200 industrial units within Western Odisha who are generating Hazardous waste.
16. The demand of infrastructure (Physical & Social) in nearby area of the proposed site will be developed under Entrepreneur Social Commitment programs. Development of amenities/ facilities in nearby area of the proposed project site as per requirement of local people of the nearby area shall be carried out under ESC programs for which funds allocated is ₹ 83 lakhs.
17. The proponent along with the consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar** made a detailed presentation before the SEAC.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar**, the SEAC prescribed the following specific ToRs in addition to standard ToRs as per **Annexure – A** for conducting detailed EIA study.

1. Land details/ kissam.
2. Certificate from concerned DFO that no DLC land involve in the land area.
3. Exact distance from Brahmini river duly certified by Tahasildar.

4. Elevation of site and elevation of high flood line of river Brahmini.
5. Specific measures to prevent leaching in case of heavy rain fall, high flood and earth quake with justification with Complete scientific leachate management be submitted.
6. Water sampling and soil sampling monitoring points taking gradient into consideration
7. List of measure industries out of total 200 industries projected be indicated with their main products, production capacity with corresponding hazardous wastes being generated and the quantity there of.
8. Basis of estimation of hazardous waste as indicated i.e 50000 TPA .
9. Water balance with ETP details.
10. Status of NOC From CGWA and permission of WR department , Govt.of Odisha for use of ground water.
11. Inputs to STP, pusrpose of STP , STP capacity, septic tank and soak pits details be submitted.
12. Since Katabahal village is only 1.2 km from the site , odour prevention management be submitted.
13. When decommissioning is expected and the basis?

**ITEM NO. 04**

**PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S. R.V ENTERPRISERS PVT. LTD. FOR BADAKUCHULU LIMESTONE & DOLOMITE MINE OVER AN AREA OF 64.993HA IN VILLAGE BADAKUCHUL, UNDER BIRAMITRAPUR TAHASIL, SUNDERGARH DISTRICT. OF SRI BISWANATH AGRAWALA (POWER OF ATTORNEY HOLDER) -ToR**

1. The proposal was considered by the Committee to determine the "Terms of Reference (ToR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.
2. The Badakuchulu mining lease area for lime stone & dolomite over an area of 160.60 acres or 64.993hect is located in the village Badakuchulu, Tahasil Biramitrapur, District Sundergarh, Orissa. The lease was granted in favor of M/S R.V Enterprisers Pvt Ltd, Rourkela, Sundergarh district, Odisha through the power of Attorney Sri Biswanath Agrawala Orissa for 20 year (from 10.12.2014-09.12.2034).
3. The area of mining lease area is located in the Survey of India Topo sheet no. 73 B/11, Latitude: 22018'02.64"N to 22018'20.29"N and Longitude: 84034'47.77"E to 84035'33.36"E. The land use pattern of the ML area comes under the non forest agricultural land category.
4. As per the estimation the geological reserve is found to be 12,087,920 Tones which includes Proved, Probable & Possible reserve 7013552T, 2537184T, 2537184T respectively for limestone and for dolomite geological reserve is found to be 1,795,040 Tones which includes Proved, Probable & Possible reserve 1102400T, 346320T, 346320T respectively. Mineable reserve for limestone is found to be 10,879,128 Tones which includes Proved, Probable & Possible reserve 6312197T, 2283465T, 2283465T and for dolomite is found to be 1,615,536 Tones which includes Proved, Probable & Possible reserve 992160T, 311688T, 311688T respectively.

5. The method of mining belongs to open cast method of quarrying with the deployment of 32mm diameter jack hammer drill, associated compressor, 1.2m<sup>3</sup> excavators, 10T tipper, 50TPH crusher & other secondary equipments.
6. The Mine proposed to produce total 179,760Cu.m of limestone & 43,200Cu.m of dolomite during Plan Period (Ten Years).

**Proposed Tentative Maximum Production & Mineral Rejects of limestone & dolomite during Plan Period (Ten Years)**

Year	Total Excavation (m <sup>3</sup> )	Inter-Burden (Mineral Rejects) (m <sup>3</sup> )	ROM Production (m <sup>3</sup> )
<b>Limestone</b>			
1 <sup>st</sup>	34500	3450	27600
2 <sup>nd</sup>	39600	3960	31680
3 <sup>rd</sup>	45600	4560	36480
4 <sup>th</sup>	52500	5250	42000
5 <sup>th</sup>	52500	5250	42000
<b>Total</b>	<b>224,700</b>	<b>22,470</b>	<b>179,760</b>
<b>Dolomite</b>			
1 <sup>st</sup>	8400	840	6720
2 <sup>nd</sup>	9600	960	7680
3 <sup>rd</sup>	10800	1080	8640
4 <sup>th</sup>	12600	1260	10080
5 <sup>th</sup>	12600	1260	10080
<b>Total</b>	<b>54,000</b>	<b>5,400</b>	<b>43,200</b>
<b>Grand Total</b>	<b>278,700</b>	<b>27,870</b>	<b>222,960</b>

7. During the plan period 27,870m<sup>3</sup> inter-burden will be generated & these are will be dumped over an area of 0.697 Ha/6,968m<sup>2</sup> in one terrace of 4m average height. There is no generation of tailings due to absence of beneficiation and wet processing.
8. Construction of retaining wall and plantation around proposed dump will be carried out.
9. The backfilled area will be brought under plantation using 1250nos. of saplings for rehabilitation over an area of 5,000m<sup>2</sup> or 0.5Ha. Sapling will be planted at 2m spacing.
10. Tube well is the source of water for drinking purpose for the workers. Total water requirement for both domestic and non domestic will be 10 KLD.
11. The mining activity at Badakuchulu will generate employment for 114nos of personnel (Highly skilled 12nos, Skilled 17nos, Semi skilled 23nos and Unskilled 62nos).
12. The mining Lease for limestone and Dolomite over an area of 65.395 in village Badakuchulu was decided for grant by the State Government as per the terms and conditions issued in proceeding no.H052dt.II.09.2001.(Annexure-I).
13. The decided area granted under mining lease by the state Government in their proceeding no-11055/SM dated II/09/2001(Annexure-II).The decided area reduced to 64.993hectares after final Survey and demarcation for the purpose of execution of the mining lease.
14. The Collector, Sundargarh submitted a proposal for the revocation of the grant order vide his letter no.2287 dt.26.12.2006 for the delay in execution of the lease beyond the time limit fixed under law and without considering the existed provisions for the condemnation of delay in execution of the lease deeds and the State Government in their proceeding

- no.3492/SM,05.04.2007, revoked the grant order as per the proposal of the Collector.(Annexure-III)
15. The grantee filed a writ in the Honourable High Court of Orissa bearing WP(C) No.9029/2007 against the revocation order dt.05.04.2007. The Honourable High Court in their order dt.31.01.2008, quashed the revocation proceeding and directed the State Government to continue as per law.(Annexure-IV)
  16. The grantee was forced to file another writ in the Honourable High Court vide WP(C) No.15728/2013 as the State Government did not take any follow up action as per the directions of the Honourable High Court dt.31.01.2008 in WP(C) No.9029/2007.
  17. Their Lordship of Honourable High Court in order dt.16.01.2014 in Wf(C) No-15728/2013 directed the state Government to execute the deed within three months from the date of the order in compliance to the directions dt.31.01.2013 in WP(C) No.9029/2007.(Annexure- V).
  18. The Grantee deposited Rs.10, 000/- as security money in form of security deposit and Fixed Deposit bearing No-917706 dated 20/07/2009 with State Bank of India, Sundargarh Branch has been deposited with the Collector, Sundargarh. But the Collector did not take any further action for the execution of the lease deed.
  19. The Grantee was again compelled to file a Contempt petition bearing CONTC No.861 of 2014 and the Hon'ble High Court on dt.15.10.2.014 issued 50 cause for the non compliance of the order dt.31.01.2008 and 16.01.2014 by the State Government.
  20. While the contempt pending in the Honourable High Court, the State Government issued directions to the Collector, Sundargarh for the execution of the lease deed in their order no.8760dt.15.11.2014.
  21. Finally the Mining lease deed was executed over an area of 64.993hectare on dt.10.] 2.2014 and registered on 11.12.2.014. After execution of lease deed the Collector, Sundargarh issued a Memorandum vide No-628 dated 29/12/2014.(Annexure-VI)
  22. Soon after execution and registration of the deed, on dt.07.02.2015, the lessee applied for the grant of surface right with in the lease hold area with the Collector, Sundargarh and an area over90.62 Acres within the lease area of 36.68 Hectare was granted under surface right by the Collector in his office order no.489 dt.l6.10.2015.(Annexure-VII)
  23. The lessee on dt.11.04.2016, applied for the modification of the mining plan approved vides Letter No-BBS/SG/Limestone & Dolomite/MP-105 dated 24.08.2001 by IBM.
  24. Further, modification was made and proposal resubmitted to the approving authority, the Regional Controller of Mines on 15.07.2016 as required by the approving authority in his letter dt.30.05.2016 and finally the modified mining plan was approved on dated 11/08/2016. (Annexure-VI II)
  25. As there was abnormal procedural delay and the operation of the mines was delayed, the lessee approached to the State Government in his letter dt.20.08.2016 with payment of fees of Rs. 1,00,000/- to save the lease from lapsing and to allow non-working of the mines which is beyond control of the lessee. (Annexure-IX).
  26. Lease conditions violation letter was received from the Regional Controller of Mines, Indian Bureau of Mines, Bhubaneswar issued on dt.23.08.2017 asking the lessee to deposit Bank guarantee of Rs.25,43,200/- in addition to the Bank Guarantee already

submitted for Rs.2,31,000/- towards the Financial Assurance for the mining project as per the amended provisions of law. (Annexure-X).

27. As the demand of the Regional Controller was a very large sum, the grantee requested for time till the opening of the mines and the lessee was also not pulling a good health during that time. Coming to know about the affirmative opinion of the Regional Controller the grantee arranged and paid the amount of Rs.25, 43,200/- vide B.G.no.31/14 dt. 29.09.2020 which is valid till 31.03.2026(Annexure- XI).
28. In the meantime the Deputy Director of Mines, Rourkela vide his demand notice no.1404 dt.31.05.2019 asked for the payment of rent for the lease for the period from 2014-15 to 2018-19 total amounting Rs.2,84,455/-.The demanded amount has been paid by the lessee through challan no.0079 dt.16.09.2019 of the Special Treasury, Bhubaneswar (Annexure-XII &XI II).
29. Similarly the interest for the delayed payment of the rent was also demanded by the Deputy Director of Mines, Rourkela in his notice dt.04.01.2020 amounting Rs.73,188/- which also been paid vide challan no.124 dt.03.02.2020 in Special Treasury, Bhubaneswar. (Annexure-XIV&XV).
30. The Environment consultant M/s Kalyani Laboratories (Pvt) Ltd. Pahala, Bhubaneswar along with the proponent has made a briefing on the proposal before the Committee.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Kalyani Laboratories (Pvt.) Ltd. Pahala, Bhubaneswar**, the SEAC prescribed the following specific ToRs in addition to standard ToRs as per **Annexure – B** for conducting detailed EIA study.

- (i) NOC from Irrigation Division, Sundergarh and Rourkela Steel plant for use of water from Mandira Dam including an undertaking in form of a legal affidavit from the proponent to ensure safety of the said Dam.
- (ii) Details of Waste Management and Erosion Management.
- (iii) Plantation of trees within first year in safety zone to prevent air pollution
- (iv) Storm and surface runoff water management during monsoon be submitted.
- (v) Mitigation measures to be taken so that water bodies nearby is not polluted.
- (vi) Certificate from the concerned Mining Officer indicating that no mining activity carried out since 2014 i.e. the year of execution of the mining lease deed.
- (vii) Approved mining scheme for current plan period.
- (viii) Gochar land 30.182 ha. Details of conversion of Gochar land is to be submitted.
- (ix) Details of mine drainage water and its management practice.
- (x) Distance of Mandira Dam from the mining lease area. Detailed measures to be taken so that mining activity will not affect Mandira Dam.
- (xi) Details of safety zone planting and maintenance. Planting in first two year and maintenance after.
- (xii) Certificate from the concerned DFO that no DLC land is involved in the lease area.
- (xiii) Since there is a reservoir there must be avian species. A specific inventory for avian species and their migratory path must be provided. A conservation plan if required on the basis of above inventory be prepared.

- (xiv) The groundwater table will vary seasonally in this region and could be linked to the FRL of the reservoir. This is very important because limestone and dolomites are often well jointed and in this region the attitude of the beds is perpendicular to the river channel. Seasonal data on Ground Water table and FRL must be provided and flow directions of Ground Water in different time be assessed.
- (xv) Size, design and adequacy of garland drain and retaining wall.
- (xvi) Size and adequacy of settling pond including silt management so that no silt is escaped.
- (xvii) Exact distance from water bodies duly certified by Tahasildar.
- (xviii) KISSAM of land duly certified by Tahasildar.
- (xix) Details of Waste Management plan.
- (xx) Slope study of mines as well as dump / OB.

**ITEM NO. 05**

**PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR KURLUBHATA DECORATIVE STONE MINES OVER AN AREA 17.676 HA AT VILLAGE-KURLUBHATA, TAHASIL-TITLAGARH, DIST-BALANGIR OF M/S KAMODGIRI POLYSPIN PVT. LTD – EXTENSION OF EC.**


1. This proposal is for Extension of validity of Environmental Clearance for Kurlubhata Decorative stone Mines over an area 17.676 ha at village-Kurlubhata, Tahasil-Titlagarh, Dist-Balangir of M/S Kamodgiri Polyspin Pvt. Ltd.
2. Environmental Clearance was granted by the State Environmental Impact Assessment (SEIAA), Odisha vide Letter no. 3185/SEIAA/5132/1789-NCM-2017dt.24.06.2017 for a period of 5 years.
3. The Kurlubhata Decorative stone Mines over an area 17.676 ha at village-Kurlubhata, Tahasil-Titlagarh, Dist-Balangir, Odisha was executed in favour of of M/S Kamodgiri Polyspin Pvt. Ltd, on 20.07.2000 for a period of 10 Years.
4. Mining Plan was approved on 29.06.2016 by Directorate of Mines, Govt. of Odisha which was valid up to 30.03.2020 vide letter No. 3185/SEIAA/5132/1789-NCM/01-2017.
5. The Mines obtained Consent to Operate via ref.No.974/III CON (OPERATE)/79/2018-19 on dt.26.02.2020.
6. The lessee has applied for renewal, which has ultimate extended up to 19.07.2030, under Rule-8A, OMMC Rules 2016, vide letter No. 3572/IV(DS) SM-18/2019/SM, Bhubaneswar, dated-07.05.2020.
7. The Mining Scheme along with Progressive Mine Closure Plan is submitted to Joint Directorate of Mines, Govt. of Odisha, which is valid up to 2020-25.
8. Though we have obtained the EC on 24.6.2017 from SEIAA, but due to non renewal of mining lease, the mining operation could not be carried out from 24.06.2017 to till date.
9. The entire Mining Lease area of 17.676 hectares comprises of non-forest land.
10. There is no sensitive ecological habitat like National Parks, Sanctuaries, Biosphere Reserves, Wildlife corridors, Tiger/Elephant reserves within 10 km radius of ML area. No Schedule I species are found within the study area.

11. The Environment consultant **M/s Envomin Consultant (Pvt.) Ltd.**, Bhubaneswar along with the proponent has made a briefing on the proposal before the Committee.

Considering the information / documents furnished by the proponent and presentation made by the consultant, the SEAC decided to take decision on the proposal after receipt of the following information / documents from the proponent.

- (i) Certified copy of half yearly condition wise compliance Report on Environmental Clearance conditions submitted to MoEF&CC, Regional Office, Bhubaneswar.
- (ii) Copy of approved Lease deed valid upto 2030.
- (iii) Copy of approved Mining Plan for lease period including scheme of mines for 5 years progressive mine closure plan and final mine closure plan.
- (iv) Document of execution of lease deed.
- (v) Details of past year-wise production.

  
Secretary, SEAC

  
Chairman, SEAC  
14.10.2020  
(B. P. SENGH)

**STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR COMMON HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITIES (TSDFS) AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT**

---

1. Reasons for selecting the site with details of alternate sites examined / rejected / selected on merit with comparative statement and reason / basis for selection. The examination should justify site suitability in terms of environmental damages, resources sustainability associated with selected site as compared to rejected sites. The analysis should include parameters considered along with weightage criteria for short-listing selected site.
2. Submit the land schedule with kisam of land.
3. Certificate from the concerned DFO about involvement of any DLC land in the project area.
4. Submit the details of the road/rail connectivity along with the likely impacts and mitigative measures.
5. Submit the present land use and permission required for any conversion such as forest, agriculture etc.
6. Examine the details of transportation of Hazardous wastes, and its safety in handling.
7. Examine and submit the details of on line pollutant monitoring.
8. Examine the details of monitoring of Dioxin and Furon.
9. MoU for disposal of ash through the TSDF.
10. MoU for disposal of scrubbing waste water through CETP.
11. Examine and submit details of monitoring of water quality around the landfill site.
12. Examine and submit details of the odour control measures.
13. Examine and submit details of impact on water body and mitigative measures during rainy season.
14. Environmental Management Plan should be accompanied with Environmental Monitoring Plan and environmental cost and benefit assessment. Regular monitoring shall be carried out for odour control.
15. Water quality around the landfill site shall be monitored regularly to examine the impact on the ground water.

  
Nodal Officer, SEAC



16. The storage and handling of hazardous wastes shall be as per the Hazardous Waste Management Rules.
17. Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.
18. Public hearing to be conducted for the project in accordance with provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan. The Public Hearing should be conducted based on the ToR letter issued by the SEIAA, Odisha and not on the basis of Minutes of the Meeting available on the website.
19. A detailed draft EIA/EMP report should be prepared in accordance with the above TOR and should be submitted to the SEIAA, Odisha in accordance with the Notification.
20. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
21. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
22. **This Terms of References (TORs) is valid for a period of four years from the date of issue of TORs for submission of the final EIA/EMP report after conducting public hearing.**



**Nodal Officer, SEAC**

**STANDARD TERMS OF REFERENCE (ToR) FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT FOR M/S. R.V ENTERPRISERS PVT. LTD. FOR BADAKUCHULU LIMESTONE & DOLOMITE MINE OVER AN AREA OF 64.993HA IN VILLAGE BADAKUCHUL, UNDER BIRAMITRAPUR TAHASIL, SUNDERGARH DISTRICT. OF SRI BISWANATH AGRAWALA (POWER OF ATTORNEY HOLDER)**

---

1. The ToR will not be operational till such time the Project Proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors .
2. Department of Mining & Geology, State Government shall ensure that mining operation shall not commence till the entire compensation levied, 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 the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
3. Year-wise production details since 1993-94 should be given, clearly stating the highest production achieved in any one year prior to 1993-94. 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. The production details need to submit since inception of mine duly authenticated by Department of Mines & Geology, State Government.
4. A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
5. All documents including approved mine plan, EIA and Public Hearing (conducted on 19.12.2014) 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.
6. Certificate from Mining Officer that mining pits which are existing within lease area have been done illegally prior to sanction of lease in favour of 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

  
Nodal Officer, SEAC

environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the proposed safeguard measures in each case should also be provided.

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

  
Nodal Officer, SEAC

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 Dept. 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 PM<sub>10</sub>, particularly for free silica, should be given.
26. Air quality modelling 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 modelling 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.

  
Nodal Officer, SEAC

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.
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.

  
Nodal Officer, SEAC

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 (conducted on 19.12.2014) 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. The activities and budget earmarked for Corporate Environmental Responsibility (CER) shall be as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 and the action plan on the activities proposed under CER shall be submitted at the time of appraisal of the project included in the EIA/EMP Report.
48. The Action Plan on the compliance of the recommendations of the CAG as per Ministry's Circular No. J-11013/71/2016-IA.I (M), dated 25.10.2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.
49. Compliance of the Ministry's Office Memorandum No. F: 3-50/2017-IA.III (Pt.), dated 30.05.2018 on the judgment of Hon'ble Supreme Court, dated the 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India needs to be submitted and included in the EIA/EMP Report.
50. Mitigation measures as per the Ministry's OM no Z-11013/57/2014-IA.II(M) dated 29.10.2014-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.
51. Besides the above, the below mentioned general points are also to be followed:-
  - a) All documents to be properly referenced with index and continuous page numbering.
  - b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
  - c) 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.
  - d) Where the documents provided are in a language other than English, an English translation should be provided.

  
Nodal Officer, SEAC

- e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
- f) 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.
- g) The consultants involved in the preparation of EIA/EMP report should be an accredited with Quality Council of India (QCI) / National Accreditation Board of Education and Training (NABET) and a certificate in this regard should be annexed in the EIA/EMP reports. Data provided by other organization/Laboratories including their status of approvals etc. should be specified. The consultant, while presenting the project should be equipped with relevant data and information relating to the project and make a qualitative presentation.
- 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. This Terms of References (TORs) is valid for a period of four years from the date of issue of TORs for submission of the final EIA/EMP report after conducting public hearing**