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**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL  
COMMITTEE, ODISHA HELD ON 24<sup>th</sup> August, 2020**

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The SEAC met on 24<sup>th</sup> August, 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

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

**ITEM NO. 01**

**PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S PREMEX FOR TENTUAPADA SAND QUARRY OVER AN AREA 5.666 HA/14.00 ACRES AT VILLAGE – TENTUAPADA, TAHASIL- DIGAPAHANDI, DISTRICT – GANJAM OF SRI PRAVA RANJAN MISHRA – 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 proposed mining project is for river bed sand mining on Bahuda River at village Tuntuapada, Tahasil- Digapahandi, in Dist- Ganjam, Odisha, over an area of 5.666Ha or 14.0 Ac. of Sri Prava Ranjan Mishra.
3. The quarry lease has been proposed to be granted by the Tahasil of Digapahandi, Ganjam district of Odisha to the applicant Sri Prava Ranjan Mishra for minor mineral (River Sand) from 2018-19 to 2022-23 vide letter no – 4810, dated 08.08.2018.
4. Mining plan has been approved by by Joint Director of Geology, South zone, Berhampur vide Memo No: 274(2)/SZ, Dt.,12-03-2019.
5. As per EIA notification 2006 and subsequent amendment as well as order of the Hon'ble NGT, the proposal is coming under category 'B2' at par with Cat. B1 and requires environmental clearance.
6. The lease area is located in village - Tuntuapada, Tahasil- Digapahandi, in Dist- Ganjam, Odisha bearing Khata No.- 324, Plot No.1603,1665,1666, Kisam: Nadi present in survey of India toposheet no. 74A12 & between latitude of 19<sup>o</sup> 14' 09.4" N to 19<sup>o</sup> 14' 17.5" and Longitude : 84<sup>o</sup> 32' 09.7"E to 84<sup>o</sup> 32' 24.8"E. Nearest Railway station is Berhampur Railway station at a distance of 27.7 Km from the project site. The mine lease area is connected via Chikiti on State Highway 29 (Chikiti- Digapahandi Road) at distance of 8.5 km. The site is well connected to NH-16 at a distance of 19.8Km & SH-29 at a distance of 1.5Km. The nearest Airport is Bhubaneswar Airport at a distance of 174.4 km.

7. The lease area is almost flat land covered with sand, during monsoon season due to heavy flow of water; sand dunes are formed within the lease area. Mining will be carried out at 40.23 mRL up to an average depth of 2m; 38.23 mRL will be the quarry floor at the end of the plan period. The river flows towards NE - SE direction. The geological reserves are 112230 m<sup>3</sup>. Mineable reserves are 92506 m<sup>3</sup>. The maximum production proposed per year is 5250 m<sup>3</sup>. There is no mineral waste as the mine material is Sand.
8. Out of the total area of 5.666Ha, 1.191Ha area will be under excavation, 6.174 Ha will be used for miscellaneous purposes like approach road, rest shed etc. & 0.396Ha dedicated for greenbelt and 3.711Ha. will remain untouched.
9. The method of mining will be open cast manual method. The quarry will be worked for five years. The average proposed rate of production is maximum up to 5250 Cu.m per annum (In five years, total production will be 25,800Cu.m).
10. Water requirement for the project will be 3KLD. Domestic water requirement will be 1 KLD, water requirement for Green belt development and dust suppression will be 0.5 KLD and for water sprinkling will be 1.5KLD.
11. Power Requirement - No use of electric power as the operation will be done in day time. Tipper & Dumper will be used for transportation. So the approximate quantity of the fuel/Diesel used per day is 100Lit/day.
12. Greenbelt will be developed in an area of 0 368 Hectares in lease period. Plantation will be done along the Buffer zone of the Lease area and Waste dumps. Total trees to be planted in 5 years is 125nos.
13. Employment potential - Due to the proposed sand mining, there will be generation of employment for 30 persons.
14. Total cost of the project will be ₹ 18 Lakhs. An environmental protection measures budget of ₹ 1.45 lakhs capital and ₹ 0.75 Lakhs recurring is allocated.
15. The project proponent along with the consultant **M/s Rightsource Industrial Solutions Pvt. Ltd., Hyderabad, Telengana** made a detailed presentation on the proposal.

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

- (i) Details of measures taken for river bank protection indicating the distance of river bank from lease area.
- (ii) Certificate from the concerned Tahasildar about the distance of the Bridge from the boundary of the lease area and other mines located within 500 m from the periphery of the lease boundary indicating the geographical coordinates of other mines and the distance thereof .
- (iii) Details of Approach/Haulage roads for mineral transportation to be provided along with mitigation measures undertaken towards maintenance of roads perennially and perpetually including dust suppression.  
The width and the length of the haulage road including its distance from the lease are and the nearest village road need to be indicated.
- (iv) To indicate the name of the adjacent villages through which the mineral will be transported including its distance from the lease area.

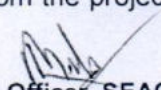
- (v) Is there any HT line passing through the lease area or adjacent to the lease area and if so the distance thereof?
- (vi) Proposed operation time of the vehicles carrying the minerals in haulage road and the frequency of the vehicles movement be submitted
- (vii) Green belt is to be shown in the map of the lease area and the period of the plantation to be mentioned.

**ITEM NO. 02**

**PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S PANPOSH SUB-DIVISION GOVERNMENT REVENUE EMPLOYEES HOUSING CO-OPERATIVE SOCIETY LTD.( (PSGREHCS LTD)) FOR PROPOSED RESIDENTIAL BUILDING PROJECT (B+G+7) AT: MOUZA - R.T.U, NO-4, TAHASIL – ROURKELA, DIST – SUNDARGARH OF SRI SANJIT KUMAR RAY - EC**

1. This is a proposal for Environmental Clearance of M/s Panposh Sub-Division Government Revenue Employees Housing Co-operative Society Ltd. (PSGREHCS Ltd) for proposed Residential Building Project (B+G+7) At: Mouza - R.T.U, No-4, Tahasil – Rourkela, Dist – Sundargarh with total built up area – 24397.68 m<sup>2</sup>.
2. The Panposh Sub- Division Government Revenue Employees Housing Co-operative Society Limited (PSGREHCS Limited) has been registered with ADM Sundargarh as a Housing Cooperative society vide registered no. 158/PN dated the 25th June 2010. The Society has deposited the premium amount and entered into a lease agreement signed through ADM. Rourkela vide lease deed no. 11711401011 dated the 7th June 2014 for an area of 1.65 Ac. As per the lease deed, the society has applied for construction of Apartment comprising of 134 flats, approved by RDA. Rourkela vide their letter no. 1910 dated 10.05.2017. Subsequently the project is registered with ORERA vide its Registration No. RP/30/2017/00012 dated the 11th December, 2017.
3. This proposed project comes under Building and Construction projects under schedule 8(a) of the EIA Notification dated 1st December, 2009 – S.O.3067 (E) - Amendment of EIA Notification dated 14th September, 2006).
4. This is an existing project of G+4 with built up area 15016.28 sqm. The project built-up area was less than 20,000 sqm and was not coming under the purview of EIA notification, 2006 and amendment there of at that time.
5. Now the project proponent is willing to expand the project by adding floors to the existing building. Additional built up area is 9381.4 sqm and after expansion built up area will become 24397.68 sqm. After proposed expansion, built-up area will be more than 20,000 sq m and thus attracts applicability of EIA Notification, 2006 and accordingly application has been submitted to obtain the environment clearance (as a new project).
6. Total land area of the project is 1.65 Ac. Total Built Up Area: 24397.68 m<sup>2</sup>. Max. Height of Building 19.74m.
7. The proposed site is located at Mouza: Rourkela, Tahasil: Rourkela, District- Sundargarh, Odisha. The Geographical co-ordinate of the project site is: Latitude : 22° 14' 44.32"N Longitude : 84°49' 58.53"E.covering in Topo Sheet No.F45G16
8. The project area is at a distance of 90 m from Ring Road, 2.15km from Panposh Road-4km from NH-23, 4km from SH-10. Biju Pattanaik Airport which is 240km away from the project

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Nodal Officer, SEAC

site. Panposh railway station is 3.5 km away from the project site. Koel River is about 3.5 km from the project boundary. Reserve forest nearby are Kamarpahar Reserve Forest 4.5 km away and Mudrapahar Reserve Forest 5 km away.

9. **Meteorology:** The temperature of Rourkela varies between 46.3° C during summer (April - July) to 7° C during winter (November to January). The humidity is high in the summer months. The wind flows in summer from south west with a speed of 35- 40 km/hr and in winter season from north east with a speed of 18-24 Km/hr. The annual average rainfall is 128.8 cm..

10. The Building Details Of The Project:

Sl. No.	Particulars	Area (in Sqft)	Area-sq m
1.	Plot Area	71,874.00	6677.313
2.	Total F.A.R	161,633.99	15016.289
3.	Total built up area	262,614.41	24397.677
4.	Covered Parking (25% of FAR Area)	57,384.51	5331.195
5.	Green Belt (15.47% of Plot Area)	11119.85	1033.068
6.	Height of the Building	19.74 mt	--
7.	No. of Flats	134 Nos.	--
<b>BUILT-UP AREA BREAK-UP</b>			
8.	Basement Floor Built up Area	35656.66	3312.612
9.	Ground Floor Built up Area	33183.57	3082.855
10.	First Floor Built up Area	28326.26	2631.596
11.	Second Floor Built up Area	28326.26	2,631.596
12.	Third Floor Built up Area	28326.26	2,631.596
13.	Fourth Floor Built up Area	28326.26	2,631.596
14.	Fifth Floor Built up Area	28326.26	2,631.596
15.	Sixth Floor Built up Area	28398.93	2638.347
16.	Seventh Floor Built up Area	23743.95	2205.885

11. **Power Requirement:** Electricity requirement for the society building will be 550 KW which will be supplied from the WESCO, Rourkela, Odisha. In addition to this, Energy efficiency solar roof top system is proposed and solar PV cells of 1.5 KW will be installed. 1 x 500 KVA DG sets will be provided as power backup.
12. **Water Requirement:** Fresh make up of 55.35 KLD will be required for the project which will be sourced from ground water. The existing water requirement of the project is 91KLD, out of which 35.65KLD of treated water from in house STP will be reused. The freshwater demand of 55.35KLD will be met from ground water supply. Dual piping system for usage of recycled water has been provisioned
13. Rain Water will be harvested through 13 no. of recharging pits.
14. **Firefighting Installations:** Firefighting system will be installed as per recommendation of the Firefighting Officer, Odisha and as per the guideline of NBC (part-4).
15. **Solid Waste Management:** Total solid waste generation is 214 kg/day. Biodegradable/ Compostable waste generation will be 128 kg/day and 86 kg/day will be inorganic waste generation. As the project is coming under Rourkela Municipality Corporation, the inorganic waste will be segregated disposed through RMC.

16. Parking space equivalent to 169 Equivalent Car Space (ECS) is provided of which 79 ECS is in basement and 90 ECS is on ground floor parking.
17. The total green area provided for the project is around 1111.85 Sqm i.e, approximate 15.47% of total plot area.
18. The project cost is Rs.43 Crores including taxes.
19. The Environment Consultant **M/s P and M Solutions, Ltd. Noida** along with the proponent made a detailed presentation 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 the site visit of the sub-Committee of SEAC.

- (i) ~~Revised~~ plantation layout is to be submitted (both existing and proposed for expansion).
- (ii) Percentage of green cover/greenbelt excluding landscape green coverage( both existing and proposed for expansion).
- (iii) Revised drainage layout showing internal drains, storm water/runoff and waste water within premises connecting to municipality drain both existing and the proposed be shown.
- (iv) Copy of approval letter from RMC for existing project of G+4 with built up area 15016.28 sqm.
- (v) Detailed usage of solar/ renewable energy (percentage wise) and increase minimum to 1%.
- (vi) Detailed layout of existing and proposed drains and Storm Water Management.
- (vii) Revised layout showing DG sets location w.r.t wind direction and the sketch of installation of DG sets on the platform having the desired stack height as per the norm.
- (viii) Details of Rain water harvesting recharging pits in plant layout. Calculation of rain water harvesting taking extreme rainfall cases during the last 30 years.
- (ix) Copy of approval letter along with approved building plan of Rourkela Development Authority.
- (x) Baseline study report is to be submitted.
- (xi) Copy of land documents supporting land schedule and kissam of land.
- (xii) NOC from PHED for unavailability of water supply for proposed project and NOC from CGWA/permission from WR Department for ground water use in case the same is unavoidable.
- (xiii) Comparative table in matrix form for existing parameters and proposed parameters w.r.t. water consumption, waste water generation, solid waste generation etc including other salient environmental and Pollution parameters.
- (xiv) Details of fire safety measures taken and copy of permission for fire safety..
- (xv) A detailed write-up as to why the proposal will not be considered as a violation case.

**ITEM NO. 03**

**PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. VASUNDHARA POWER AND INFRASTRUCTURE PRIVATE LIMITED FOR PRODUCTION OF 9,60,000 TPA COAL WASHERY OVER AN AREA OF 23.02 ACRES AT MOUZA - KALOBHAL, TAHASIL – HEMGIRI, DIST- SUNDARGRAH -TOR**

The project proponent didn't attend the meeting. The SEAC decided to defer/delist the proposal in view of repeated absence.

**ITEM NO. 04**

**PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. VASUNDHARA POWER AND INFRASTRUCTURE PRIVATE LIMITED FOR PRODUCTION OF 9,60,000 TPA COAL WASHERY OVER AN AREA OF 23.02 ACRES AT VILLAGE-TAPARIA MOUZA - GAINKAPALLI, TAHASIL –HEMGIRI, DIST- SUNDARGRAH –TOR**

The project proponent didn't attend the meeting. The SEAC decided to defer the proposal in view of repeated absence.

**ITEM NO. 05**

**PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S LAVANYABATI MINERALS PVT. LTD.FOR IRON ORE WASHING & BENEFICIATION FACILITY OF THROUGHPUT 0.48 MTPA CAPACITY OVER AN AREA OF 8.150 AC. AT PATMUNDA, TAHSIL-KOIRA, DIST- SUNDARGARH, ODISHA –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. M/S Lavanyabati Minerals Pvt. Ltd, intends to setting up of an Iron Ore Washing and Beneficiation Plant in Odisha, utilizing Raw Iron Ore from their Captive Mine and with a provision to upgrade Raw Ore of other interested Mine. The proposed Iron Ore Washing & Beneficiation facility shall be of 0.48 MTPA capacity.
3. The project is coming under category 'B1 'as the throughput capacity of the beneficiation plant is 0.48 MTPA and requires environmental clearance from State Environment Impact Assessment Authority (SEIAA) , Odisha under category 2(b) as per EIA notification 2006 and subsequent amendments.
4. The proposed beneficiation plant will be located in village Patmunda, Koira of Sundergarh District over an area of 8.150 Acres. The project is located in Latitude N- 21° 51' 50.0" and Longitude E- 85° 18' 21.0" and identified in toposheet no 73G/5. NH-215 is located at a distance of 7Km, W from the project site. Nearest railway station is at Nayagarh railway station located at a distance of 13Km and airport is Rourkela Airport- 66 Km from the project site.Nearest nala is Khajuridihi Nala- 0.7 Km, Arachanda Nala- 1.2 Km, Tehrai Nala – 4 Km, Suna River – 1.0 Km. Nearest reserve forest is Khajuridih RF – 4.5 Km. Nearest town - Koira- 7 Km.
5. The proposed project is for beneficiation of Iron ore with 0.48 MTPA throughput with grade <60% Fe<sub>2</sub>O<sub>3</sub>.

6. The raw material of Iron ore beneficiation plant is low grade Iron ore (< 60% of Fe<sub>2</sub>O<sub>3</sub>). The raw material will be sourced from the captive mines of Koida which are about 20 Km from the plant site. The raw material transportation will be mostly done through trucks by road. The plant site is well connected with black topped road. The average yield of Iron Ore Concentrate is around 85% at 63 +/- 1% Fe Content.
7. The water requirement will be met from ground water and rain water harvesting. The total water requirement will be 136 KLD. 0.08 Cu.M / T of Raw Ore Processed (8 Cu.M / Hr) i.e. 128 KLD for beneficiation process. Other water uses: 8 KLD. The water utilized in the process will be recycled resulting in zero discharge of waste water. The tailing pond of adequate capacity will be constructed with suitable impervious lining to prevent percolation into ground water. The over flow of settling pond will be fully recycled.
8. The Power Requirement is about 325KWH and the source is from WESCO.
9. The major solid waste will be the tailings generated from beneficiation process. The quantity of tailings will be 240 TPD i.e. 72000 TPA. The tailings will be disposed in tailing pond and finally dumped in the dumping yard.
10. Total manpower requirement for the project will be 56 nos including managerial, skilled and unskilled labour.
11. Out of the total plant area of 8.15 acres 2.70 acres (33%) of land will be demarcated for green belt development. There are existing plantations of about 400 trees along the boundary of the project site. The species planted are Teak, Neem, Chakunda, Sirisa, Simili, Mahaneem, Saptaparni etc. 2500 nos of plants will be planted along the internal roads and around the periphery of the proposed plant.
12. The total capital cost of the project is 1963 Lakh. The proponent has all the equipment required for the project. Total Capital Cost for Environmental Pollution Control Measures- 100 lakhs and CER – 40 lakhs.
13. The Environment Consultant **M/s Kalyani Laboratories (Pvt) Ltd. Pahala, Bhubaneswar** along with the proponent 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 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) Details of tailing pond and tailing management including design of tailing pond.
- (ii) Reasons for non-requirement of ETP in such a situation how the waste water of a tailing pond will be disposed without treatment.
- (iii) Copy of Land documents including plot no., khata no. and kissam of land.
- (iv) Agreement with the mines for linkage of raw material.

**ITEM NO. 06**

**PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. GEETARANI MOHANTY FOR RAIKELA IRON ORE MINES FOR ENHANCEMENT OF IRON ORE PRODUCTION CAPACITY FROM 0.864 MTPA TO 2.99 MTPA ALONG WITH CRUSHING AND SCREENING FACILITY OVER AN MINING LEASE AREA OF 67.586 HA. AT VILLAGE – RAIKELA, TAHASIL - KOIRA, DISTRICT- SUNDARGARH – EC.**

1. The proposal is for Environmental Clearance for Raikela Iron ore Mines for enhancement of Iron Ore Production Capacity from 0.864 MTPA to 2.99 MTPA along with Crushing and Screening Facility over an mining lease area of 67.586 Ha. At Village – Raikela, Tahasil - Koira, District- Sundargarh of M/s Geetarani Mohanty.
2. This expansion project falls under category B1 as per MoEF&CC, Govt. of India notification.
3. ToR for this project has been issued by SEAC, Odisha vide letter No. 435, dated 11.12.2019. Public hearing was conducted on 26.02.2020 in Playground near Geetarani Hutting, Koira Tehsil, Sundargarh district, through Additional District Magistrate, Sundargarh. Final EIA/EMP report was uploaded online along with necessary documents
4. Location of the mine is at Village Village-Raikela, Tehsil-Koira, District– Sundargarh, Odisha. The site Coordinates is Latitude: 21° 51' 54.47" to 21° 52' 35.39"N. In the north side ML area of M/s Penguin Trading and in the southern side ML area of M/s C P Sharma are situated
5. Initially the mining lease was executed in favor of Smt. Geetarani Mohanty for a period of 20 years w.e.f 02.07.1991 up to 01.07.2011. Renewal application was made on 20.05.2010 under rule 24A (6) of MCR 1960 for a period of further 20 years i.e. up to 01.07.2031. All the statutory clearances were obtained during 2014. In the mean time under section 8A(3) of the MMDR amendment act, 2015 the state government has extended the validity period of the mining lease up to 01.07.2041 i.e. 50 years from the date of original mining lease 02.07.1991. State Govt. asked for payment of compensation against EC violation.
6. In pursuance of the supreme court order dated 30.12.2017 in CWP no. 114/2014, DDM, Koira raised the demand notice vide no. 5054 dated 02.09.2017 towards environmental clearance matter, the project proponent has paid the compensation of Rs 207,94,42,000.00 as directed. Further a sum of Rs 44,37,71,760.00 for production made in excess of the lower of the approved limit under MP & CTO as per the demand of State Govt.
7. After payment of compensation, supplementary lease deed was executed and registered in favor of lessee vide regd. No1721900263 on dated 27.05.2019. As per the supplementary lease deed, the validity of the lease period is now extended up to 01.07.2041. Subsequently, the state government has allowed to work within the ML area and accordingly, mining operation has been started since 22.08.2019.
8. Modification of review of the mining plan is approved by Indian Bureau of Mines, Bhubaneswar vide letter no MSM/FM-10/ORI/BHU/2019-20 dated 20.09.2019.
9. Out of the 67.586ha of mining lease area, forest land under DLC category is 66.671ha and 0.915ha is non-forest land. Ministry of environment and forest, Govt. of India has accorded the stage-II (final stage) forest clearance over an area of 66.671ha vide letter no 8-37/2007-FC dated 22.10.2014.
10. Environment Clearance for the project has been obtained for the production capacity of 0.864MTPA vide letter No J-11015/380/2006-IA.II dated 02.07.2008



11. The lessee has obtained the consent to establish under section 25/26 of the water (PCP) act 1974 and under section 21 of air (PCP) act 1981 for the production capacity of 0.864 MTPA vide the letter no 1764/IND-NOC-3700 dated 31.01.2006.
12. The lessee has obtained the consent to operate under section 25/26 of the water (PCP) act 1974 and under section 21 of air (PCP) act 1981 for the production capacity of 0.864MTPA vide the letter no 2610/IND-I-CON-2572 dated 14.03.2019 and valid up to 31.03.2020.
13. The mining lease area is approachable from Koira town (8 km) by Bhadrasahi – Rourkela NH–215. And from Tensa town ship which is on NH – 215 at a distance of 2 km. Nearest Rail is Barsuan Railway station located at 17 km. District Headquarters is at Sundargarh – 110 km from lease area.
14. The nearest water bodies are Sarkunda Nala- 4.2 km, Kuradhi Nadi- 8km and Karo Nala - 3km respectively. There is no reserve forest in the core zone. However, the reserve forests found in the buffer zone are as follows - Sarkunda R.F - 2.5 Km (South), Tohra R.F - 3.3km (South), Karo R.F - 9.5km (North-east), Kathmal R.F - 8.2km ( East).
15. The topography of mining lease area is hilly terrain with maximum elevation of the area is 840m AMSL at NW part of the area whereas the lowest elevation is 630m AMSL at eastern part.
16. The total geological and mineral reserve of iron ore is estimated to be 40.882 MT and 28.387 MT. Proposed production during the plan period is 4980210 MT. The life of mines is 10 years. Open cast fully mechanized method category 'A' (FM) will be used for mining.
17. The proposal is to increase production capacity from existing 0.864 MTPA to 2.99 MTPA. During plan Period 2019-20, total excavation will be 20, 84,357MT consisting 19, 82,165 MT ROM and 1, 02,192 MT waste & during Plan period 2020-21 total excavation will be 32, 95,780 MT consisting 29, 90,000 MT ROM and 3, 05,780 MT waste
18. During 2yrs of Plan period there will be generation of 4, 07,972MT waste which comes to 2,03,986 cu.m and out of which 30%, i.e. 61,195.80cum will be used for internal road maintenance and balance 1,42,790.20to be disposed at dumping site. Retreating method will be adopted for the disposal of waste at proposed dumping site. The average height of the proposed dump will be 18m maximum. At the end of plan period the existing dump will attend a height up to 680m RL. During dumping about 0.21Ha additional land will be utilized
19. Out of 51.699Ha, back filling of mined out land will be done over an area of 5.40Ha. The total conceptual waste will be utilized for back-filling with average thickness of 9m. Balance 46.299Ha will be reclaimed by means of bench plantation
20. During Plan period it has been planned for plantation over an area of 1.00 Ha with 4,600 nos. of saplings consisting Mango, Karanj, Chakunda, Neem etc. At the ultimate stage, about 15.887 ha area shall be covered under plantation.
21. The Water Requirement is 180KLD and Source is Ground Water. The Existing water requirement is 64.5KLD for which NOC has been obtained. Water will be sourced from bore well inside the premises for 8 months. Rain water will be harvested and stored in pond and utilized for 4 months of summer.
22. The Power Requirement is about 300KVA and the source is from WESCO. 50 KVA generators for semi mobile crushing plant and 300 KVA standby DG set are available.
23. The total man power is 500 Persons (Directly Including Processing and Logistic Persons )

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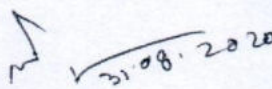
24. The cost of Project is ₹ 80 Crore. A sum of ₹ 213 Lakh will be spent towards capital cost for EMP and a sum of ₹ 74.8 Lakh will be spent towards annual recurring cost of EMP.
25. The baseline data on micro- meteorology, ambient air quality, Water quality, noise level, soil and flora & fauna are collected during Summer Season (Mar 2019 – May 2019).
26. The Environment Consultant **M/s Global Tech Enviro Experts Pvt. Ltd. Bhubaneswar** along with the proponent made a detailed presentation on the proposal before the Committee.

Considering the information / documents furnished by the proponent, the SEAC decided to take decision on the proposal for recommendation of Environmental Clearance after receipt of the following information / documents from the proponent.

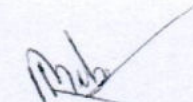
- (i) Details of Exploration study made.
- (ii) Details of methods adopted for de silting and maintenance of retaining walls.
- (iii) A SOP for de silting of agricultural lands in buffer zone and beyond including nearby Nalas/rivers perennially periodically and perpetually caused due to wash up of minerals/OB/dumps through a legal affidavit.
- (iv) Detail design of the existing retaining wall and the proposed for the expansion from a chartered Civil engineer to ensure that no silt after wash ups is escaped from the core / buffer zone of the mines.
- (v) Details of Greenbelt area. Details of Plantation previously and proposed to be carried out for the existing vis-a-vis the expansion in a matrix form.
- (vi) Slope study for dump and mining for the existing and Stimulated for expansion with the findings including measures to be taken for deviation in case of existing ones, if any.
- (vii) Comparative statement of all the parameters such as water requirement, waste water generation including all relevant salient environment and Pollution parameters generation etc. of existing mining activity and proposed expansion.
- (viii) Detailed plan of action for socioeconomic benefit through a socio economic study by an expert of National repute/ through a National institute of repute..
- (ix) Specific measures taken for occupational health of employees and villagers surrounding plant. Any Occupational health hazards identified caused due to the existing mining activity for the employees and the local people and measures taken thereof be submitted. A commitment in form of an undertaking for periodical occupational health check up of the employee and the local people must be done through an occupational health expert and a detail action plan for the same be submitted.
- (x) Document supporting grade of Fe products to be sold.
- (xi) Detailed material balance including low grade and tailing generation is to be submitted.
- (xii) Revised plant layout showing dump area, storage area, ETP and pond area wise along with production of different grades, low grades, tailing with coverage of dump area year wise in a tabular form
- (xiii) Quantity of tailings generated for the existing mines/to be generated for the proposed expansion including the management of the same.
- (xiv) Detailed usage of solar energy to be implemented.

- (xv) Details of Traffic Management within the mining lease area including buffer zone and on public roadways and the results of traffic study undertaken vis-à-vis the norms with V/C ratio and measures for decongestion.
- (xvi) Details on usage of ETP in the mine.
- (xvii) Detailed method for computation of V/C along with the value of V/C be mentioned explicitly and category of congestion.
- (xviii) Mitigation measures to be taken in air and water pollution due to expansion.
- (xix) Year wise generation of low grade ore with Fe content, storage facility and its utilisation plan.
- (xx) Copy of permission for drawal of ground water for existing mining activity from CGWA/WR Department Government of Odisha for the mining operations since 2019-20 as it appears that the ground water has been used unauthorisely without valid permission, Please explain the violation.
- (xxi) Copy of Wildlife Management Plan.
- (xxii) Supportive documents for lease validity period.
- (xxiii) SOP for dust suppression and maintenance of the haulage Road perennially and perpetually be submitted, the copy of which will be forwarded by SEIAA to appropriate Government authority to ensure compliance of the same.
- (xxiv) Time bound and perennial action plan as necessary be submitted for augmentation of infrastructure on drinking water, health care and education in near by villages.
- (xxv) Please explain why permission for temporary storage but regularly required of blasting explosives material is not required for controller of explosives Govt. of India for this magnitude of mining activity.
- (xxvi) The details of STP and ETP including waste water/treated waste water be submitted.
- (xxvii) Provision of parking plaza for the heavy vehicles with layout be submitted.
- (xxviii) Study of vehicular emission for the existing Mining activity and simulated emission for the proposed expansion vis-a-vis the standard be submitted along with the mitigation measures in case of deviation from standards. Reasons of enhanced GLC concentration using line mode to the western side simulated by the air quality model be indicated. If the enhancement is due to joint contribution by the local / other mixing / industrial activity, mitigation measures to be taken up jointly be indicated in EMP.

Secretary, SEAC

  
Chairman, SEAC

Proceedings of the SEAC meeting held on 24.08.2020

  
Nodal Officer, SEAC

**TERMS OF REFERENCE (ToR) FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT FOR M/S PREMEX FOR TENTUAPADA SAND QUARRY OVER AN AREA 5.666 HA/14.00 ACRES AT VILLAGE – TENTUAPADA, TAHASIL- DIGAPAHANDI, DISTRICT – GANJAM OF SRI PRAVA RANJAN MISHRA –TOR**

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**A. STANDARD TOR FOR MINING PROJECT**

1. The Environmental Clearance 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 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.
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 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. 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).
7. 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.
8. 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.
9. 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 proposed safeguard measures in each case should also be provided.

10. 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.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.
16. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
17. 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.
18. 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.
19. 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 alongwith 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.

20. 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.
21. 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).
22. 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.
23. 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.
24. 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.
25. 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.
26. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
27. 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.

28. 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.
29. 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.
30. Details of any stream, seasonal or otherwise, passing through the tease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be.
31. 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.
32. 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.
33. 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.
34. Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
35. 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.
36. 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.
37. 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.

38. 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.
39. 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.
40. 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.
41. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
42. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
43. A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
44. 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.
45. The activities and budget earmarked for Corporate Environmental Responsibility (CER) shall be as per MoEF&CC, Govt. of India 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.
46. The Action Plan on the compliance of the recommendations of the CAG as per MoEF&CC, Govt. of India 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.
47. Compliance of the MoEF&CC, Govt. of India Office Memorandum No. F: 3-50/2017-IA.III (Pt.), dated 30.05.2018 on the judgement 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.

**B. SPECIFIC TOR**

- (i) Details of measures taken for river bank protection indicating the distance of river bank from lease area.
- (ii) Certificate from the concerned Tahasildar about the distance of the Bridge from the boundary of the lease area and other mines located within 500 m from the periphery of the lease boundary indicating the geographical coordinates of other mines and the distance thereof .
- (iii) Details of Approach/Haulage roads for mineral transportation to be provided along with mitigation measures undertaken towards maintenance of roads perennially and perpetually including dust suppression.
- (iv) The width and the length of the haulage road including its distance from the lease are and the nearest village road need to be indicated.



- (v) To indicate the name of the adjacent villages through which the mineral will be transported including its distance from the lease area.
- (vi) Is there any HT line passing through the lease area or adjacent to the lease area and if so the distance thereof?
- (vii) Proposed operation time of the vehicles carrying the minerals in haulage road and the frequency of the vehicles movement be submitted
- (viii) Green belt is to be shown in the map of the lease area and the period of the plantation to be mentioned.

**C.** 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.
- 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 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) 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.
- h) 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.
- i) 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.

**D.** The prescribed TOR would be valid for a period of four years for submission of the EIA/EMP report after conducting public hearing.

**STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT  
IMPACT ASSESSMENT STUDY FOR MINERAL BENEFICIATION  
PROJECTS AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT**

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1. The alternate sites considered, the relative merits and demerits and the reasons for selecting the proposed site for the Beneficiation Plant should be indicated.
2. Details of the technology and process involved for beneficiation should be given.
3. Location of the proposed Plant w.r.t. the source of raw material and mode of transportations of the ore from mines to the beneficiation plant should be justified.
4. Treatment of run of mine (ROM) and or of the fines/waste dump should be spelt out.
5. Estimation of the fines going into the washings should be made and its management described.
6. Details of the equipment, settling pond etc. should be furnished.
7. Detailed material balance should be provided.
8. Sources of raw material and its transportation should be indicated. Steps proposed to be taken to protect the ore from getting air borne should be brought out.
9. Management and disposal of tailings and closure plan of the tailing pond, if any after the project is over, should be detailed in a quantified manner.
10. 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 also be indicated.
11. A copy of the document in support of the fact that the Proponent is the rightful lessee of the unit should be given.
12. All documents including EIA and public hearing should be compatible with one another in terms of the production levels, waste generation and its management and technology and should be in the name of the lessee.
13. All corner coordinates of the Unit, superimposed on a High Resolution Imagery/Toposheet should be provided. Such an Imagery of the proposed Unit should clearly show the land use and other ecological features of the study area (core and buffer zone).
14. Issues relating to Safety should be detailed. The proposed safeguard measures in each case should also be provided. Disaster management plan shall be prepared and included in the EIA/EMP Report.
15. The study area will comprise of 10 km zone around the Plant.
16. Cumulative impact study of both Beneficiation Plant with suggested mitigation measures as per the study should be described.

17. Option to provide only silo for storage of minerals instead of open stacking to avoid fugitive dust should be explored and arrangements finalized justified.
18. 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 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.
19. Details of the land for any Over Burden Dumps outside the lease, such as extent of land area, distance from lease, its land use, R&R issues, if any, should be given.
20. 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.
21. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
22. A study shall be got done to ascertain the impact of the 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.
23. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, 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.
24. 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.
25. Proximity to Areas declared as 'Critically Polluted' shall also be indicated and where so required, clearance certifications from the prescribed Authorities, such

as the SPCB/CPCB shall be secured and furnished to the effect that the proposed activities could be considered.

26. 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 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.
27. 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 unit in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
28. 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.
29. 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.
30. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be secured and copy furnished. .
31. 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.
32. 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.
33. Details of any stream, seasonal or otherwise, passing through the project area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.

**Nodal Officer, SEAC**

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. 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 the 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.
36. Details of the onsite shelter and facilities to be provided to the workers should be included in the EIA report.
37. 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 should be detailed.
38. 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.
39. 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.
40. Public hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
41. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
42. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
43. A brief background of the Project, its financial position, Group Companies and legal issues etc. should be provided with past and current important litigations if any.
44. Benefits of the Project, if the project is implemented should be outlined. The benefits of the projects shall clearly indicate environmental, social, economic, employment potential, etc.
45. Details of tailing pond and tailing management including design of tailing pond.

46. Reasons for non-requirement of ETP in such a situation how the waste water of a tailing pond will be disposed without treatment.
47. Copy of Land documents including plot no., khata no. and kissam of land.
48. Agreement with the mines for linkage of raw material.
49. 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 project 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 also 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.
  - (i) 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. 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 by the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
50. **The prescribed TOR would be valid for a period of four years for submission of the EIA/EMP report after conducting public hearing.**