

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE, ODISHA HELD ON 25TH JULY' 2024**

The SEAC met on 25th July' 2024 at 04:00 PM in the Conference Hall of Odisha State Pollution Control Board, Bhubaneswar under the Chairmanship of Sri Shashi Paul. The following members were present in the meeting.

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|------------------------------|---|-----------------------|
| 1. Sri Shashi Paul | - | Chairman (through VC) |
| 2. Dr. K. Murugesan | - | Member Secretary |
| 3. Dr. Rabi Narayan Patra | - | Member (through VC) |
| 4. Dr. Chittaranjan Panda | - | Member (through VC) |
| 5. Prof. (Dr.) H.B. Sahu | - | Member (through VC) |
| 6. Prof. (Dr.) Abanti Sahoo | - | Member (through VC) |
| 7. Er. Fakir Mohan Panigrahi | - | Member (through VC) |
| 8. Prof. (Dr.) B.K. Satpathy | - | Member (through VC) |
| 9. Er. Kumuda Ranjan Acharya | - | Member (through VC) |
| 10. Shri Jayant Kumar Das | - | Member (through VC) |
| 11. Dr. Ashok Kumar Sahu | - | Member (through VC) |
| 12. Dr. K. C. S Panigrahi | - | Member (through VC) |

CONSIDERATION OF OLD PROPOSALS (COMPLIANCE RECEIVED):

The compliances furnished by the proponents were verified by the members through e-mail and also proceedings of the meeting were confirmed by the members through e-mail. The decision of the committee on case-to-case basis as follows:

ITEM NO. 01

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR ERADA DEVI RIVER SAND BED OVER AN AREA OF 15.00 ACRES OR 6.070 HECTARES AT VILLAGE-ERADA, TAHASIL-NAUGAON, DISTRICT-JAGATSINGHPUR OF SRI MANOJ AGRAWALLA - EC

1. This proposal is for Environmental Clearance for Erada Devi River Sand Bed over an area of 15.00 acres or 6.070 hectares at Village-Erada, Tahasil-Naugaon, District-Jagatsinghpur of Sri Manoj Agrawalla.
2. **Category:** As per EIA Notification, 2006 and its subsequent amendments, the proposed project falls under Category B in Schedule in item 1(a)- Mining of Minerals.
3. The lease is granted (Successful Bidder) in the name of Sri Manoj Kumar Agrawalla, at Village-Erada, Tahasil-Naugaon, District-Jagatsinghpur for a lease period of 5 (five) years by Tahasildar, Hatadihi vide letter no. 529 dated 29/03/2022.
4. The Mining plan has been approved Joint Director of geology, Zonal survey, Dhenkanal, Odisha vide letter no. 1163 dated 19/10/2020.
5. This is an existing mine and mining lease is an identified sairat source in the District Survey Report for River Sand of Jagatsinghpur district which has been prepared in accordance with

Proceedings of the SEAC meeting held on 25th July 2024

J. Nayak
Environmental Scientist, SEAC

Appendix – x, Para – 7 (iii) (a) of S.O. No – 3611(E) dated 25.07.2018 of MoEF & CC, New Delhi and approved by Collector, Jagatsinghpur on dated 04.01.2020 and the said area has been marked in page no. 20, Annexure – I, Sl. no – 11 of DSR Report.

6. **TOR details:** Terms of Reference (ToR) was issued by SEIAA, Odisha vide Letter no. - 58822/106-MINB1/02-2021 on 08/07/2021.
7. **Public hearing details:** Public hearing was conducted on 16.09.2022 at 10.30 AM at Dhana Khala near Panchyatraj high school, Erada under Naugaon Tahasil in Jagatsinghpur district. Environment Protection measures, Maintenance of approach road, concreting the roads, water sprinkling for dust suppression, avenue plantation for soil erosion, availability of sand to local people at cheaper price etc were the main issues in Public Hearing. Funds have been merged with environment management plan as per OM F. No. 22-65/2017-IA.III, dated 30.09.2020 issued by MoEF&CC. Budget allocated for CSR activities is Rs.45000.
8. **Location and connectivity:** The mine lease area is located in Khata no-895, Plot No-969(p), Village-Erada, Tahasil-Naugaon, District-Jagatsinghpur, Odisha. The proposed site is bounded by Latitude: N20°10'01.9"to N20°10'03.2", Longitude: E86°09'23.7"to E86°09'27.1" bearing topo sheet no. - 73L/3, Kissam - Nadi kissam. The Lease area is accessible from Jagatsinghpur at a distance of 9.7 km. Nearest approach road at 0.5km, nearest NH is NH-16 at a distance 33.2km; SH-60 at a distance of 11.5 km. Nearest Airport is Bhubaneswar Airport - 36.3 km. Nearest Habitation is Erada about 0.5 km. Nearest forest is Dhaltangagarh Reserve Forest at 18.1 km, SW. Nearest Railway Station - Gorakhnath Railway Station 18.7Km. Nearest Road Bridge is Galadari Bridge- 1 km, River embankment – 1km, Electric transmission Pole – 1.7km.
9. **Reserves and production:** The total Geological reserves is 1,51,757.5 cum and Mineable Reserves is 1,27,227.5 cum and the Proposed Production for the Proposed Project is 14570 cum/Annum.
10. **Replenishment study details:** The Study was carried out for pre-monsoon data on 25.06.2023 and post monsoon data on 21.11.2023 by using UAV/ Drone method as per the SSMG, 2020. As, per the calculation, 9972.955913m³ sand has been replenished annually.
11. **Baseline study details:** Baseline Study was conducted in 1st December, 2021 to 28th February, 2022.
 - a) **Air quality:** The AAQ analysis indicates that the concentration of PM₁₀ varied from 34.5 to 68.9µg/m³, PM_{2.5} from 14.5 to 29.6 µg/m³, SO₂ from 4.5 to 11.0 µg/m³, NO_x from 6.4 to 14.5 µg/m³.
 - b) **Surface water quality:** All samples meet the desirable standards (pH ranges from 7.08-7.45). TDS in samples ranges from 72 mg/L to 81 mg/L. all the samples meet the permissible limit of 2000 mg/L. Total hardness in the water ranges from 48 mg/L to 54 mg/L. All the samples meet the permissible limit of 600mg/L. Calcium content in the water ranges from 8.7 mg/L to 9.8 mg/L, all the samples meet the permissible limit of 200 mg/L. Magnesium content in the water ranges from 3.9 mg/L to 4.4 mg/L, all the samples meet the permissible limit of 100 mg/L.
 - c) **Ground water quality:** The ground water analysis for all the 7 sampling stations shows that pH varied from 6.78 to 7.55, total hardness varied from 54 mg/L to 87 mg/L & total dissolved

solids varied from 81 mg/L to 130 mg/L. The water samples contain chloride 14.6 mg/L to 25.9 mg/L, Ca from 9.8 mg/L to 15.7 mg/L, Magnesium varies from 4.4 mg/L to 7.1 mg/L.

d) **Noise study:** Noise level varies from 37.5 to 49.5 dB (A) during Day time and 35.6 to 44.6 dB (A) during Night time, which are below the prescribed limits of CPCB.

e) **Soil quality:** All the samples showed pH in the range from 6.75 - 7.59. Organic Matter ranges from 0.23% - 0.74 % in the soil samples. Nitrogen is found to be in moderate amount as it ranges from 623 mg/kg - 714 mg/kg and Phosphorous in less amount i.e. from 215 mg/kg - 261 mg/kg, whereas the Potassium is found to be ranging from 245 mg/kg - 455 mg/kg

12. **Mining method:** The mining of sand will be done by open cast manual method for excavation, capacity is Max 14570 m³/yr.

13. **Water requirement:** Total water approx., 5 KLD will be required for different purposes like Domestic, Dust suppression, plantation purposes & sourced as per the availability.

14. **Greenbelt development:** 50 trees per year plantation will be carried out for the proposed project.

15. **Manpower requirement:** Total 31 nos of manpower will be required for the proposed project.

16. **Project cost:** Total cost of the proposed project is 20.0 Lakhs. A capital cost of 3.5 lakhs & 2.05 lakhs as EMP recurring cost.

17. **Environment Consultant:** The Environment consultant **M/s Green Circle Inc., Vadodara** along with the proponent made a presentation on the proposal before the Committee.

18. The SEAC in its meeting held on dated **09-05-2024** decided to take decision after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Submit the RL of surface of sand bed, river water surface & river bank.	The details of RL value with GCP points and Co-ordinates of Surface of Sand Bed, River Water Surface and River Bank now has been mentioned in Table No-6 at page No10.	Complied Location of GCP Points (Latitude, Longitude and elevation) near Water surface Area and River Bank near the lease.
2.	The project proponent shall submit the accuracy report errors in measurements of latitude / easting (X), longitude / Northing (Y) and elevation / azimuth (Z) of the geolocation points mentioned in the pre and post monsoon drone survey. along with the accuracy level & errors w.r.t geo-location of x, y & z.	The details of accuracy level of measurements of latitude / easting (X) longitude / Northing (Y) and elevation / azimuth (Z) is given in the Annexure No.III & IV of RSR report.	-

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
3.	Revised Replenishment Report showing the mined elevation, unmined elevation and revised calculation of sand replenished. The RLs of the riverbed sand and the safe working area mentioned in the pre and post monsoon replenishment study reports need to be reconciled with those in the revised approved mining plan.	Revised Replenishment Survey report showing the mined elevation, unmined elevation in Contour image of Pre & Post monsoon maps and revised calculation of sand replenished now has been attached in page no 34 of RSR report. The RLS of the riverbed sand and the safe working area mentioned in the pre and post monsoon replenishment study reports will be reconciled during Revised mining plan.	Page 34 shows the volume of sand during Pre-Monsoon and post-monsoon survey in safe workable area along with the table showing nos of location points, easting, northing and elevation of pre-monsoon and post-monsoon.
4.	Revised Mining Plan needed as per the Replenishment study.	Revised Mining plan will be prepared after getting permission from the Competent Authority & submit it later.	The PP has mentioned the Revised Mining Plan will be submitted later.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Green Circle Inc., Vadodara**, the SEAC recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions as per **Annexure – A** in addition to the following specific conditions.

- i) Amended EIA Notification dated 25th July, 2018, Guidelines for sustainable sand mining, 2016 and Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India shall be adhered to in execution of Mining as per **Annexure – B**.
- ii) Sand extraction shall be limited to quantity and depth as per replenishment study report. Regular replenishment study as per guidelines to be conducted and report to be submitted.
- iii) Provision of Bio-toilet shall be made at the site.
- iv) Avenue plantation and plantation on both sides of the haulage road in consultation with/ on the advice of concerned Forest Department, Government of Odisha & W.R. Department Government of Odisha as well.
- v) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.

ITEM NO. 02

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR DARGULA SAND BED CLUSTER I & II, OVER AN AREA OF 6.69 HECTARES IN VILLAGE DARGULA, TAHASIL DABUGAON, DISTRICT NABARANGPUR BY TAHASILDAR DABUGAON (SUBMITTED UNDER CLUSTER APPROACH CONSISTING OF 2 SAND QUARRIES) – EC

1. This proposal is for environmental clearance for Dargula sand bed cluster I & II, over an area of 6.69 Hectares in village Dargula, Tahasil Dabugaon, District Nabarangpur of Tahasildar Dabugaon (submitted under cluster approach with consisting of 2 sand quarries).
2. **Category:** The project is categorized in Category-B-1 of Schedule under item 1(a)-Mining of Minerals in the EIA notification, 2006 and its subsequent amendments.

3. The Mining plan has been approved The Joint Director of Geology, Zonal survey, Koraput. Vide letter no – 1120, on dated 08.06.2020 (Quarry I) and 1141, dated 08.06.2020 (Quarry II)
4. The proposed mining cluster project is the river bed sand mining on Angi River at village Dargula under Tahasil: Dabugaon, Dist: Nabarangpur, Odisha over an area of 6.69 Ha. The cluster constituted of two sand bed namely Dargulla sand quarry I over an area of 2.53 Ha , Dargulla sand quarry II over an area of 4.16 Ha , on Angi river. All the two mines located within 500m radius from each other forming a cluster of sand bed. The lease has been allocated to the successful bidders by Tahasildar Dabugaon.
5. The Dargula sand quarry I have been allocated to Sri K. Paban Raju and Dargula Sand Quarry II has been allocated to Sri B. Jogi Raju.
6. **Public hearing details:** Public hearing was successfully executed on date 20.09.2022 at Gram Panchayat office premises of Jabaguda village under Dabugaon Tahasil in Nabarangpur district as per the guidelines given in EIA Notification 14th Particular September' 2006 and its subsequent amendment. Road repairing and widening of roads and supply of sand on concessional rates to local people were the main issues raised during public hearing and budget allocated for it was Rs. 1,48,000.
7. **TOR details:** TOR has been granted by SEIAA- Odisha prescribed the Reference No: 651/SEIAA dated 26-02-2021.
8. **Location and connectivity:** The proposed river bed sand mining will be carried out on Angi River located at village: Dargula, under Tahasil: Dabugaon, Dist Nabarangpur, Odisha The project site is located in survey of India toposheet no-(65I/7). Dargula Sand Quarry I falls between latitude of 19°26'09.73"N to 19°26'18.09"N and longitudes of 82°20'23.12"E to 82°20'34.50"E and Dargula Sand quarry II falls between latitude of 19°26'13.93"N to 19°26'29.44"N and longitudes of 82°20'34.91"E to 82°20'45.80"E. Nearest Railway station is Kotpar Railway Station at a distance of 44.02 Km from the project site. The nearest road is a village road located at a distance of 100m. The site is well connected to NH-201 & SH-39 at a distance of 21.09 Km & 6.7 Km respectively. Nearest airport is Jharsuguda Airport located at a distance of 326Km from the mining Lease Cluster.
9. **Topography and drainage:** Topography of the area is a flat terrain which lies at an elevation of more than 2m from the level of flow of water. The gradient of flow of water in the river is gentle. So, in the lease area, the highest elevation is 115mRL & lowest elevation is 113mRL in sand. Drainage system in the region is dendritic. General flow direction of river is from North to South. Work will continue only during summer months when there is no water in the leasehold. Mining will be restricted to a depth above the ground water level.
10. **Replenishment report:** The estimated average erosion thickness is computed within the entire lease area and common safe workable area respectively. However, the volume of sand available in Dargula-I sand quarry after post monsoon study is around 6465.3 m³, which can be treated as safe extractable within the framework of the study after arrival of river level. As it is a new mine no excavation has done in this year. So, total minable reserve available for mining is 36825.3 m³ whereas, approved production capacity for the year is 6072 m³. The volume of sand available in Dargula-II sand quarry after post monsoon study is around 12814.68 m³, which can be treated as safe extractable within the framework of the study after arrival of river level. So, total minable

reserve available for mining in Dargula-II is 46244.68 m³ whereas, approved production capacity for the year is 6670 m³.

11. **Reserves:** Geological reserves and mineable reserves of Dargula Sand Quarry I is 62301.96 cum and 31463.64cum respectively and for Dargula Sand Quarry II is 77265 cum (geological reserve) and 33430 cum (mineable reserve). Total production of the proposed project is given below in the following table.

Sl. No.	Year	Dargula -I Production in m ³	Dargula II Production in m ³	Total Production in m ³ (Cluster)
a)	1st	6072	6670	12742
b)	2nd	6072	6670	12742
c)	3rd	6072	6670	12742
d)	4th	6072	6670	12742
e)	5th	6072	6670	12742
Total		30360	33350	66710

12. **Mining method:** The method of excavation of sand from Dargula Sand Quarry – I & II will be by manual method. The mode of the deposits, geomorphology of the area and its hydrological condition are some of the factors that favor the open cast method of mining. In this deposit, the mining is done by dry-pit method i.e. Sand will be excavated within the active channel on dry intermittent or ephemeral stream beds. The excavator is used for removal of sand from the pits. The sands are extracted, loaded and transferred from pits to the users through trucks and tractors. The mining is done on single shift basis. The local manpower has been engaged in the mine. Benching will not be feasible in case of sand mining as the maximum depth of mining will be only 1 m.
13. **Water requirement:** the water requirement for workers for the Dargula I, 7.0 KLD of water will be required and 8.0 KLD of water will be required for Dargula II. Total water requirement for the cluster will be 15.00 KLD. This water will be supplied from the nearby area.

Activity	Calculation	Round off Figure in KLD
Drinking	@ 10 lpcd per labor 10*21/1000= 0.21 KLD	0.21
Dust Suppression	Total approach road to be water sprinkled = 1540 m 1540 m*6m*0.5 *2 times/1000= 9.24 KLD	9.24
Plantation	2610 plant (during plan period) @ 2 L/per plant= 2610*2lts= 5220/1000= 5.22 KLD	5.22
Total		14.67 ~ 15.0

14. **Baseline study:** Baseline study was conducted for period of 3 months (October'21 to December'21).
- a) Ambient Air Quality Monitoring reveals that the minimum & maximum concentrations of PM₁₀ for all the 7 AQ monitoring stations were found to be 58.7 µg/m³ at AQ3 and 89.34 µg/m³ at AQ1, respectively. Ambient Air Quality Monitoring reveals that the minimum & maximum

concentrations of PM_{2.5} for all the 7 AQ monitoring stations were found to be 23.21 µg/m³ at AQ3 and 56.21 µg/m³ at AQ1, respectively. As far as the gaseous pollutants SO₂ and NO_x are concerned, the prescribed CPCB limit of 80µg/m³ for residential and rural areas has never surpassed at any station. The minimum & maximum concentrations of SO₂ were found to be 3.24 µg/m³ at AQ2 & 17.21 µg/m³ at AQ1, respectively. The minimum & maximum concentrations of NO_x were found to be 9.83 µg/m³ at AQ3 & 25.10 µg/m³ at AQ1, respectively.

- b) Analysis results of ground water during study period reveal pH varies from 7.19 at GW4 to 7.73 at GW6; total hardness varies from 280.34 mg/l at GW4 to 329.4mg/l at GW3 ;total dissolved solids vary from 846 mg/l at GW4 to 1238 mg/l at GW6.
 - c) Surface water analysis results indicate that the pH ranges between 7.32 and 7.72. Dissolved Oxygen (DO) was observed in the range of 6.8 to 7.4 mg/l against the minimum requirement of 4 mg/l. BOD values were observed to be in the range of 3.62 – 4.3 mg/l. The chlorides and Sulphates were found to be in the range. Bacteriological examination of surface water samples revealed the presence of total coliform in range of 1.8×10³MPN/100 ml to 2.0×10³. MPN/100 ml.
 - d) Noise monitoring reveals that the maximum & minimum noise levels at daytime were recorded as 59.4 Leq. dB (A) at NQ3 & 50.6 dB (A) at NQ5, respectively. The maximum & minimum noise levels at night-time were found to be 48.2 dB (A) at NQ3 & 38.8 dB (A) at NQ5.
 - e) Samples collected from identified locations indicate the soil is sandy type and the pH value ranging from 7.25 to 8.02, which shows that the soil is alkaline in nature. Potassium is found to be from 234.20mg/kg to 253.56mg/kg. The water holding capacity is found in between 26.94 % to 32.09%.
15. **Greenbelt:** Plantation will be done with suitable local species like Teak, Mango, Neem, Jammun, Jhaun etc after consultation with the local authorities. A time bound progressive schedule for greenbelt is given in the following table. Total 2610nos. of saplings will be planted from the cluster during plan period.

Dargula Sand Quarry - I				
Year	Safety Zone Plantation Area/No. of plants	No of plants along both side of approach road	Location	Species
1 st	0.480/480	740	Approach road – 740 nos – along both sides 0.74 km of approach road at spacing of 2 m.	Guava, mango, Jammun, jhaun, neem etc
2 nd	Maintenance	Maintenance		
3 rd				
4 th				
5 th				
Total	480	740		
Total	1220			

Dargula Sand Quarry - II

Year	Safety Zone Plantation Area/No. of plants	No of plants along both side of approach road	No. of plants in buffer zone consulting local authorities	Location	Species
1 st	0.491/490	800	100	Approach road – 800 nos – along both sides 0.80 km of approach road at spacing of 2 m. Village area – 100 nos. In village area like school premises, Aangawadi, Panchayat bhavan	Guava, mango, Jammun, jhaun, neem etc.
2 nd	Maintenance	Maintenance	Maintenance		
3 rd					
4 th					
5 th					
Total	490	800	100		
Total	1390				

16. **Manpower requirement:** Total manpower requirement of Dargula sand quarries is 21 nos. (i.e. Dargula sand quarry I is 10nos. and Dargula sand quarry II is 11nos.).
17. **Project cost:** The estimated cost of project is around Rs. 60 lakhs. CER budget proposed for this project is 1,20,000/- and for EMP a budget of Rs.830000 has been allocated as capital cost and Rs. 270000 as recurring cost.

Dargula Sand Quarry– I & II (For Cluster) Budget for environmental protection

Sl. No.	Measures	Capital Cost (In Rs.)	Recurring Cost (In Rs.)
1.	Pollution Control Dust Suppression /Water Sprinkling	--	50,000
2.	Pollution Monitoring i) Air pollution ii) Water pollution iii) Soil Pollution iv) Noise Pollution	--	50,000 40,000 10,000 10,000
3.	Green belt development	5,22,000	50,000
4.	Maintenance of haul road	3,08,000	60,000
Total		8,30,000	2,70,000

18. **Environment Consultant:** The Environment consultant M/s P and M Solution, Noida along with the proponent made a presentation on the proposal before the Committee on 03.03.2023.
19. The SEAC in its meeting held on dated 03-03-2023 recommended the following;

- A) The proponent may be asked to submit the followings for further processing of EC application;
- Exclude concave portions (area prone to erosion) from the mining zone.
 - Revisit and submit replenishment study.
 - The exact distance of the nearest bridge from proposed quarry.

- d) Certificate from concerned DFO for absence of Schedule – I species and the flora and fauna of the region.

B) The proposed site shall be visited by Sub-Committee of SEAC to verify the followings;

- i) Actual sand deposit in the lease area as shown in KML file.
- ii) Environmental settings of the lease area.
- iii) Mining activity, if any carried out in the lease area.
- iv) Road connectivity to the lease area.
- v) Distance of the bridge from the boundary of the lease area.
- vi) Cluster approach if any.
- vii) Distance of embankment from sand deposit.

20. The project proponent has not replied to ADS raised by SEAC. Regarding the site visit, the SEAC opined that proposed area is far and possibility for visit to the place by SEAC Members is not possible.

21. The SEAC in its meeting held on dated **11-09-2023** decided to take decision on the proposal after receipt of the following from the proponent.

- i) Video showing the cluster lease area with geo coordinates, transportation road of the cluster, Mine area of all quarries present in cluster and previous mining activity.
- ii) Fresh KML file.

22. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Video showing the cluster lease area with geo coordinates, transportation road of the cluster, Mine area of all quarries present in cluster and previous mining activity.	Not submitted	Old compliance report has been resubmitted by PP
2.	Fresh KML file.	Not submitted	

After detailed discussion, the SEAC decided to take decision on the proposal after receipt of the following from the proponent.

- i) Video showing the cluster lease area with geo coordinates, transportation road of the cluster, Mine area of all quarries present in cluster and previous mining activity.
- ii) Fresh KML file.
- iii) It seems from replenishment report that the concave portion of the Daragula Sand Bed-I has not been taken into account while calculating the safe working zone. This has to be taken into consideration.

ITEM NO. 03

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S SANI CLEAN PVT. LTD FOR EXPANSION COMMON BIO-MEDICAL WASTE TREATMENT FACILITIES EXPANSION FROM 3.2 TPD TO 11.2 TPD LOCATED AT TANGIAPADA, P.O – NIALI, DIST: KHORDHA OF SRI MAHESH AGARWAL - 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 EIA Notification, 2006 and amendment thereafter.
2. This proposal is for Terms of Reference of M/s Sani Clean Pvt. Ltd. for expansion Common Bio-Medical Waste Treatment Facilities expansion from 3.2 TPD to 11.2 TPD located at Tangiapada, P.o – Niali, Dist: Khordha of Sri Mahesh Agarwal.
3. M/s Sani Clean Private Limited is operating a Common Bio-Medical Waste Treatment Facility (CBMWTF) of capacity 3.2 TPD in Odisha since January 2003. The facility is located at Plot no. - 654/960, Khata No. - 273/13, Mouza - Tangiapada, Tahasil - Khordha, Dist. - Khordha, Odisha - 752055 in an area of 14747 Sqm. (3.644 acres).
4. **Category:** This project falls under Category "B" of Project activity 7 (da) - Development of Common Bio Medical Waste Treatment Facility projects as per EIA Notification dated 14th Sept, 2006 as its amendments.
5. At present, M/s Sani Clean Private Limited is collecting Bio-medical waste covering 750nos of Health Care Facilities (HCFs) from 6 districts of Odisha, with a coverage of a 75km radius area.
6. Now, the company has been allotted 2625 nos. of HCFs from 8 districts covering hospitals run by the Central Government, State Government, Local Bodies, Private Hospitals, and Super Specialty Hospitals located in the districts of Khordha, Cuttack, Nayagarh, Jajpur, Puri, Dhenkanal, Jagatsinghpur, Kendrapada & the Private HCFs of Angul district.
7. Hence the company is proposing an expansion of capacity from 3.2 TPD to 11.2 TPD in vacant spaces of the same land for effective management of Bio-Medical Waste.
8. **Location and connectivity:** The proposed project is situated at Plot no. - 654/960, Khata No. - 273/13, Mouza - Tangiapada, Tahasil - Khordha, Dist. - Khordha, Odisha -752055 in an area of 14747 Sqm. (3.644 acres). The site falls under Toposheet No. 73H/11 & 12. The geographical co-ordinates are Latitude - 20^o 12'27.34" N & Longitude - 85^o 36'35.57" E. Kisam of Land-Bajefasal 1. The Nearest Highway is SH-57 which is 2.35 km; NH-16 is 4.5km away from project site. The nearest Airport is Biju Patnaik International Airport at 25 km from the project site. Nearest water body – No river present within 100 m (River Daya is at distance of 15Kms from the facility in South direction). No lake or pond present within 200 m (Pond at Duaribandha Village which is at distance of 900mtrs from Project site in North Direction). Nearest Village Duaribandha at 900mts away from the Proposed Site.
9. There are no National Park/Wildlife Sanctuary/ Eco-sensitive zone located within 10 km radius of the Project Site. No public park within 500m (Janaki Ballav Patnaik Park is at a Distance Of 5.13km in north direction)

10. Land Use Pattern Of Project Site:

S. No.	Facility	Existing	Proposed	Area (Sq. m)
1	Facility Area	2335	3153	5488
2	Green Belt	1486	3380	4866
3	Internal Roads	386	377	763
4	Parking Area &	600	880	1480
5	Ash & Sharp Pit	30	120	150
6	Vacant Area	---	2000	2000
TOTAL AREA IN SQM		4837	9910	14747
TOTAL AREA IN ACRE		1.2	2.44	3.644

11. Existing & Proposed Project Configurations & Capacities:

Facility	Existing Configuration	Permissible Treatment Capacity	Proposed Configuration	Proposed Capacity	Final Capacity
Incinerators	2 X 200 kg/hr	3200 kg/day	1 x 300kg/hr. 2 x 250 kg/hr.	6400 kg/day	9600 kg/day
Autoclave	2 x 150 kg/day 1 x 100 kg /day	400 kg/day	2 x 600 kg/day	1200 kg/day	1600 kg/day
Shredder	2 x 100 kg/hr	-	2 x 300 kg/hr	--	--
ETP	40 KLD	-	80 KLD	-	120 D

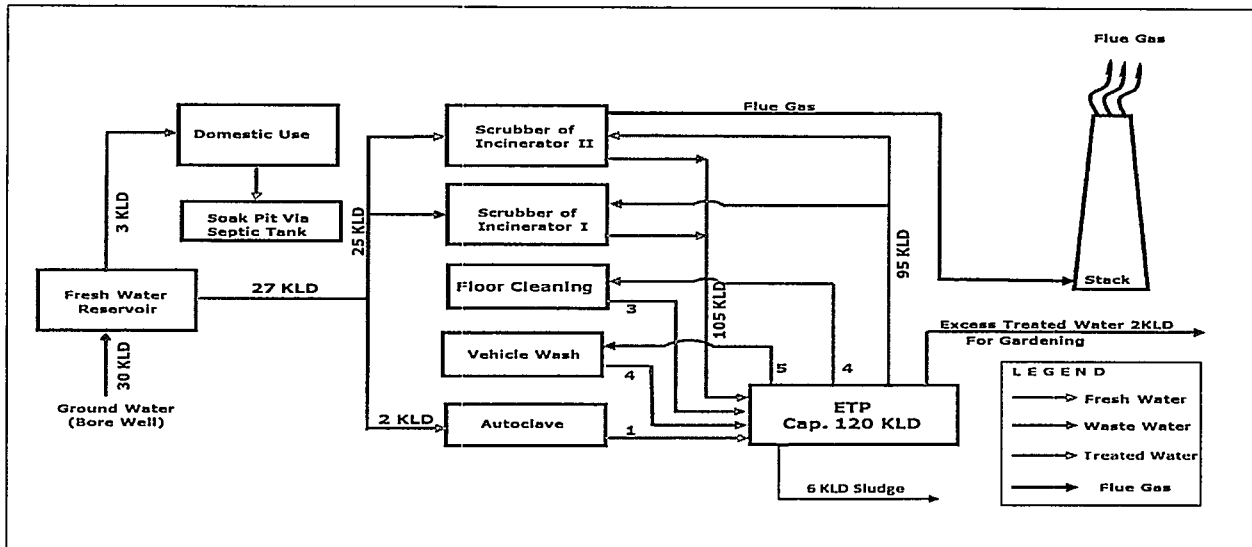
12. **Process Description:** All waste materials collected in different containers from collection sites shall be off-loaded to the respective BMW collection room based on their color codes and properly treated and disposed off as per Schedule I, BMW rules 2016. Yellow Category of wastes shall be directly loaded into the incinerator. White and Blue categories of waste shall be loaded into the autoclave for dis-infection. The liquid wastes from all sources of generation shall be treated in an effluent treatment plant. Ash, residue from high temperature incineration shall be stored in ash pit inside the premises and later shall be sent to the authorized hazardous waste treatment, storage and disposal facility (TSDF). After autoclaving and shredding, the sterilized and shredded plastics will be supplied to authorized non-food grade plastic recycler. Shredded metals, metallic body implants shall be collected into the sharp pit inside the premises and later sent to the authorized metal recycler.

13. Baseline study period has been completed i.e., October-2023 to December-2023.

14. **Water requirement and waste water management:** The Proposed CBWTF shall have a total water requirement of 133 KLD which includes, 120 KLD for scrubber, 2.0 KLD for Autoclave, 4.0 KLD for floor washing, 2.0 KLD for green belt, and 5.0 KLD for vehicle wash. The fresh water requirement of 30KLD will met from the bore well and the remaining 106 KLD will be met from waste water treated and recycled from ETP. 3.0KLD from the bore well will be used for domestic use. NOC, vide CGWA/NOC/IND/ORIG/2021/13730, for 15KLD has been taken from CGWA/State Ground Water Dept.

15. Total Waste water generated 113 KLD and Treated water generated 106 KLD in ETP. M/s Sani Clean Pvt. Ltd. have aim towards Zero Liquid Discharge (ZLD) system and have proposed an

ETP with advanced water treatment technologies to treat its waste water and produce clean water to reuse in the process.



16. **Power requirement:** Total power requirement for the proposed project would be 100 KW which will be sourced from TPCODL. Additionally, 2 no. of DG set of (1 X 63kVA, 1 X 62kVA) is proposed for the project.
17. **Rainwater harvesting details:** The average annual rainfall of the project area is about 1436mm=1.436 m. M/s. Sani Clean shall harvest rainwater from its project area, store and use it as a water consumption reduction measure.
18. **Parking Requirement:** Total parking area provided 1480 Sq.mt. ECS 64 and it is 10% of total plot area in south west corner of the plot.
19. **Fire fighting Installations:** 30 nos. of fire fighting extinguisher will be installed in main facility area, storage area and other places.
20. **Mitigation of solid waste produced:** Incinerator Ash from incinerator and other residue materials generated from the process are collected in bags, temporarily stored in storage shed and finally disposed in secured municipality landfill.
21. **Greenbelt development:** Green belt will be developed over 33 % of the total land will be the greenbelt area i.e. 4866sqm. Total 1216 no. of plants to be planted and spacing will be 4 meters between plants with 3 tier.
22. **Total Employment:** At present 83 nos. of people are working in existing plant and more 133nos. of people will be engage in the proposed expansion.
23. **Project cost:** The estimated project cost is 3.5cr and cost for EMP is 45 lakhs.
24. **Environment Consultant:** The Environment consultant M/s Global Tech Enviro Experts Pvt. Ltd, Bhubaneswar along with the proponent made a presentation on the proposal before the Committee.
25. The SEAC in its meeting held on dated 09-05-2024 recommended the following:

A. The proponent may be asked to submit the following for further processing of TOR application:

- i) Is the proposed site is located within 75 K.M. from another existing CBWTF or not? A detailed write up in this regard shall be submitted.
- ii) Land documents and kisam of land.
- iii) As per the proposal, the Project Proponent has proposed for 3 and ½ times expansion w.r.t existing capacity. Justify how the proposed area will be sufficient for expansion.

B. If decided to issue ToRs, following specific ToRs may be prescribed while issue of Terms of References.

- i) Compressive and clear layout w.r.t environment settings showing Plant equipment arrangement, showing all process, materials storage, and handling units.
- ii) Supporting documents showing concerned authority/body/organisation has allotted the unit to collect biomedical wastes from prescribe areas.
- iii) Undertaking/Declaration by Project Proponent that they will not handle the radioactive wastes.
- iv) Mitigation measures to be undertaken to protect the nearest water body and people living in nearest villages.
- v) Provision for analysis of Mercury content in raw materials collected and disposal method for Mercury wastes.
- vi) Permission copy from Water Resources deptt. Odisha for usage of 15KLD ground water.
- vii) Detailed write up on the handling of bio medical waste (segregation, process followed and disposal of waste).
- viii) Precautionary measures to be undertaken to prevent contamination of soil and water from the raw material storage area due to leaching.
- ix) Brief write up on surface run off management with drainage map.
- x) Submit the water balance break-up and where the cooling water is to be used.
- xi) Submit the coverage area details.
- xii) SOP for Biomedical waste management for workers involved in segregation and waste handling.
- xiii) Regarding disposal of the incinerator ash submit supporting documents like MoU with private agencies along with guidelines suggested for its disposal.
- xiv) Copies of Consent to Operate.
- xv) The ETP should have provision to take care of wastewater being contaminated with biomedical wastes.
- xvi) Submit the procedure for Bio-Assay test, biological monitoring and parameters taken for study in existing unit.

xvii) Disaster Management plan in case of floods or cyclones.

xviii) Transportation route chart to be submitted. Provision to be kept for GPS tracker in vehicles used for transportation.

C. The proposed site shall be visited by Sub-Committee of SEAC to verify the followings

- a) Environmental settings of the project site.
- b) Extent of construction activity and operational status of all the units.
- c) Road connectivity to the project site.
- d) Drainage network at the site.
- e) Greenbelt development in the existing plant.
- f) Solid waste management practice of the existing plant.
- g) Vacant land available.
- h) Any other issues including local issues.

26. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Is the proposed site is located within 75 K.M. from another existing CBWTF or not? A detailed write up in this regard shall be submitted.	<p>There are 4 nos. of CBWTF facilities operating in the state of Odisha. They are as follows:</p> <ol style="list-style-type: none">1. M/s Sani Clean Pvt Ltd, Tangiapada, Khorda2. M/s Mediaid Marketing Services Pvt Ltd, Sundergarh3. M/s Mediaid Marketing Services Pvt Ltd, Seragarh, Ganjam4. M/s Renewable Envirogic Pvt Ltd, Bolangir <p>The proposed site is not a new site but only the expansion of the existing unit of M/s Sani Clean Pvt Ltd. All other facilities of CBWTF are situating more than 75 Km from M/s Sani Clean Pvt Ltd. A Google map showing the distance is also attached (Annexure – I) for your kind information & needful action.</p>	<p>PP has proposed for the expansion of the existing facility. All other CBWTF are located at a distance of more than 75 Kms (Google earth imagery and Land document is attached for reference)</p>
2.	Land documents and kism of land.	The details of Land documents i.e. Patta & Kism of Land is Attached as Annexure – II .	Land document is attached for reference as Annexure II
3.	As per the proposal, the Project Proponent has proposed for 3 and ½ times expansion	The existing capacity of M/s Sani Clean Pvt Ltd is Incineration – 3.2 MT and Autoclave – 0.4 MT per day. It is proposed to increase the capacity to as follows – Incineration – 6.4 MT just two times of existing facility. Where one of 300KG/Hr capacity and two nos of 250 KG/Hr shall be installed. Whereas the	Complied.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC																																																																																							
	w.r.t existing capacity. Justify how the proposed area will be sufficient for expansion.	<p>Autoclaving facility shall be of 1.2 MT/Day, which is three times of the present one. This takes the total operative capacity to Incineration – 9.6 MT/ Day and the Autoclaving facility to 1.6 MT/ Day.</p> <p>The details of the land use of the existing plant and land use for the proposed expansion are given below;</p> <table border="1" data-bbox="459 456 1273 1323"> <thead> <tr> <th colspan="6">LAND USE - M/S SANI CLEAN PVT LTD</th> </tr> <tr> <th>S. No.</th> <th>Description</th> <th>Unit</th> <th>Existing</th> <th>Proposed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td rowspan="4">1.</td> <td>Capacity</td> <td>MT</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Incinerator</td> <td></td> <td>3.2</td> <td>6.4</td> <td>9.60</td> </tr> <tr> <td>Autoclaving</td> <td></td> <td>0.4</td> <td>1.2</td> <td>1.60</td> </tr> <tr> <td>TOTAL</td> <td></td> <td>3.6</td> <td>7.6</td> <td>11.20</td> </tr> <tr> <td>2.</td> <td>Facility Area</td> <td>Sq. Mtr</td> <td>2335</td> <td>3153</td> <td>5488.00</td> </tr> <tr> <td>3.</td> <td>Green belt</td> <td>Sq. Mtr</td> <td>1486</td> <td>3380</td> <td>4866.00</td> </tr> <tr> <td>4.</td> <td>Internal Roads</td> <td>Sq. Mtr</td> <td>386</td> <td>377</td> <td>763.00</td> </tr> <tr> <td>5.</td> <td>Parking Area</td> <td>Sq. Mtr</td> <td>600</td> <td>880</td> <td>1480.00</td> </tr> <tr> <td>6.</td> <td>Ash Pit</td> <td>Sq. Mtr</td> <td>25</td> <td>10</td> <td>35.00</td> </tr> <tr> <td>7.</td> <td>Sharp Pit</td> <td></td> <td>5</td> <td>110</td> <td>115.00</td> </tr> <tr> <td>8.</td> <td>Vacant Space after Expansion</td> <td>Sq. Mtr</td> <td>0</td> <td>2000</td> <td>2000.00</td> </tr> <tr> <td colspan="2">TOTAL ARAE IN SQM</td> <td>Sq. Mtr</td> <td>4837</td> <td>9910</td> <td>14747.00</td> </tr> <tr> <td colspan="2">TOTAL ARAE IN ACRE</td> <td>Sq. Mtr</td> <td>1.2</td> <td>2.44</td> <td>3.64</td> </tr> </tbody> </table> <p>The space required for the higher capacity Incinerators is taking around 15% extra space from the existing one. The autoclaves are also taking around 20 % extra space in comparison to the existing facility. The space for the existing and proposed facility has been inspected and checked by the monitoring team of SEAC and found to be complying with the drawings submitted and the proposed land Use Plan given in the proposal.</p> <p>Hence, the land available will be sufficient for expansion.</p>	LAND USE - M/S SANI CLEAN PVT LTD						S. No.	Description	Unit	Existing	Proposed	Total	1.	Capacity	MT				Incinerator		3.2	6.4	9.60	Autoclaving		0.4	1.2	1.60	TOTAL		3.6	7.6	11.20	2.	Facility Area	Sq. Mtr	2335	3153	5488.00	3.	Green belt	Sq. Mtr	1486	3380	4866.00	4.	Internal Roads	Sq. Mtr	386	377	763.00	5.	Parking Area	Sq. Mtr	600	880	1480.00	6.	Ash Pit	Sq. Mtr	25	10	35.00	7.	Sharp Pit		5	110	115.00	8.	Vacant Space after Expansion	Sq. Mtr	0	2000	2000.00	TOTAL ARAE IN SQM		Sq. Mtr	4837	9910	14747.00	TOTAL ARAE IN ACRE		Sq. Mtr	1.2	2.44	3.64	
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27. The proposed site was visited by the sub-committee of SEAC on 20.06.2024. Following are the observations of the sub-committee

- a) The site is a private land wherein the plant is in operation and the land is connected with a revenue type of road. Sufficient extra land is available for expansion proposed.

- b) The PP and Team were present wearing masks and all workers were wearing safety kit, gloves etc.
- c) The site is maintained clean with storage of materials in colour codes. They have an incinerator in operation with gas scrubbing facilities and online gas analysis monitoring system.
- d) Sufficient trees have been planted and no discharge of any liquid found.
- e) They have also an ETP working. Both ETP and Scrubber were old enough, so advised to go for updating if possible.
- f) PP was advised the following and asked to submit details during EC application:
 - i) Document for ownership of additional land.
 - ii) Layout showing the current unit, additional facilities, RWH etc
 - iii) They should procure a pH meter for maintaining pH in addition to pH paper currently used
 - iv) Modernise the existing scrubber and go for better equipment for proposed Incinerator, scrubber and ETP.
 - v) Retaining wall to be made in all sides of ash storage tank and ZLD to be maintained.
 - vi) All other points asked during presentation.

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 prescribed the following specific ToRs in addition to standard ToRs as per **Annexure – C** for conducting detailed EIA study

- i) **Revised water balance to be submitted.**
- ii) **Precautions to be taken for collection of Bio Medical Wastes.**
- iii) **Details of equipments and their capacity to be installed in Project.**
- iv) **Document for ownership of additional land.**
- v) **Layout showing the current unit, additional facilities, RWH etc**
- vi) **They should procure a pH meter for maintaining pH in addition to pH paper currently used**
- vii) **Modernise the existing scrubber and go for better equipment for proposed Incinerator, scrubber and ETP.**
- viii) **Retaining wall to be made in all sides of ash storage tank and ZLD to be maintained**
- ix) **Compressive and clear layout w.r.t environment settings showing Plant equipment arrangement, showing all process, materials storage, and handling units.**
- x) **Supporting documents showing concerned authority/body/organisation has allotted the unit to collect biomedical wastes from prescribe areas.**
- xi) **Undertaking/Declaration by Project Proponent that they will not handle the radioactive wastes.**

- xii) Mitigation measures to be undertaken to protect the nearest water body and people living in nearest villages.
- xiii) Provision for analysis of Mercury content in raw materials collected and disposal method for Mercury wastes.
- xiv) Permission copy from Water Resources deptt. Odisha for usage of 15KLD ground water.
- xv) Detailed write up on the handling of bio medical waste (segregation, process followed and disposal of waste).
- xvi) Precautionary measures to be undertaken to prevent contamination of soil and water from the raw material storage area due to leaching.
- xvii) Brief write up on surface run off management with drainage map.
- xviii) Submit the water balance break-up and where the cooling water is to be used.
- xix) Submit the coverage area details.
- xx) SOP for Biomedical waste management for workers involved in segregation and waste handling.
- xxi) Regarding disposal of the incinerator ash submit supporting documents like MoU with private agencies along with guidelines suggested for its disposal.
- xxii) Copies of Consent to Operate.
- xxiii) The ETP should have provision to take care of wastewater being contaminated with biomedical wastes.
- xxiv) Submit the procedure for Bio-Assay test, biological monitoring and parameters taken for study in existing unit.
- xxv) Disaster Management plan in case of floods or cyclones.
- xxvi) Transportation route chart to be submitted. Provision to be kept for GPS tracker in vehicles used for transportation.
- xxvii) Permission from the panchayat and ROW documents for connecting land from project site to nearest approach road through the nearby village area.
- xxviii) Details of amount of waste to be generated from the hospitals on the per day basis rather than calculating on number of beds.
- xxix) Aerial distance certificate from State Pollution Control Board, Odisha from the nearby Bio-Medical Waste Treatment Facilities.
- xxx) Precautionary measures to be undertaken to avoid contamination of wastes or due to surface runoff from project site to the nearby water reservoir.
- xxx) Standard Operating Protocol starting from collection point of waste generation/raw material, segregation, transportation, treatment and disposal of waste generated from plant.

- xxxii) The baseline monitoring should also include biological parameters and baseline study should also cover the monsoon period.
- xxxiii) The storage sheds provided for the biomedical waste should be covered.
- xxxiv) Provide a buffer zone of 5km around the proposed site.
- xxxv) A write up on the amount of segregated waste to be handled at the project site monthly and annually.
- xxxvi) Avoid using transport route passing through the village.
- xxxvii) SOP/measures to be followed for safety and health issues (due to handling of hazardous waste materials) of employees and local people of nearby villages.
- xxxviii) Area details to be cover for collection of waste materials/raw materials.
- xxxix) Agreement papers or MoU with Common Hazardous Waste Treatment and Disposal Facility for disposal of waste generated and its management.
- xl) Category wise list of wastes to be handled.
- xli) Layout plan of drainage plan of the site showing the discharge point of this drain to the nearest public drain for safe discharge of flood water from the site during rain fall along with excess treated water if any. Necessary permission from the competent authorities for such discharges also needs to be obtained.
- xlii) PP to install few water and air monitoring instruments and implementation schedules with records for periodic compliance.
- xliii) Since M/S Sani Clean has applied for expansion it should provide analysis report of soil, air and water with respect to physico-chemical and microbial concentrations of different parameters in and around the existing plant.
- xliv) The proposed green belt area appears to be less. The proponent shall increase the greenbelt area upto 33% of total area and detailed proposal to be submitted.

ITEM NO. 04

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR EXPANSION OF "SPARSH OPTIMUM HEALTHCARE PRIVATE LIMITED" WITHIN THE PREMISES OF PREVIOUS LAND AREA – 12224.23 SQM, OVER IDCO DRAWING PLOT NO- 126 CORRESPONDING TO REVENUE PLOT NO-5052(P), 5054(P), 5050(P), 5051 (P), 5049(P), 4964(P), 5056(P), 4965(P), KHATA NO-1030, 864, 987, 1000, 1027, 141, 1015 IN MOUZA-GADAKANA, MANCHESWAR INDUSTRIAL ESTATE, UNDER BHUBANESWAR MUNICIPAL CORPORATION OF SRI SAUMENDRA NARAYAN MISHRA- EC

1. This Proposal of Environmental Clearance for Expansion of "Sparsh Optimum Healthcare Private Limited" within the premises of previous land area – 12224.23 sqm, over IDCO Drawing Plot No- 126 corresponding to Revenue Plot No-5052(P), 5054(P), 5050(P), 5051 (P), 5049(P), 4964(P), 5056(P), 4965(P), Khata No-1030, 864, 987, 1000, 1027, 141, 1015 in Mouza-Gadakana, Mancheswar Industrial Estate, under Bhubaneswar Municipal Corporation of Sri Saumendra Narayan Mishra.

2. **Category:** As per EIA Notification, 2006 and its subsequent amendments, the proposed project falls under Category B in Schedule in item 8 (a) Building and Construction projects.
3. As per BMC Approval Letter for "Sparsh Optimum Health care Private Limited" vide letter no. 26534, Bhubaneswar, dated 21/09/2019, File no. MBP/BMC-02-0102/2018; About 7890 sqm. (50% of approved built up area of ("Sparsh Optimum Healthcare Private Limited") built-up area as approved by BMC has already been constructed by the proponent. As per the EIA Notification, 14th September, 2006, the Existing built up area is less than 20,000 sqm. Hence it does not attract Environmental Clearance for existing proposal.
4. **Location and connectivity:** The mine lease area is located over IDCO Drawing Plot No- 126 corresponding to Revenue Plot No-5052(P), 5054(P), 5050(P), 5051 (P), 5049(P), 4964(P), 5056(P), 4965(P), Khata No-1030, 864, 987, 1000, 1027, 141, 1015. The proposed site is bounded by Latitude: 20°18'8.57"N to 20°18'3.42"N, Longitude: 85°51'10.73"E to 85°51'9.43"E bearing topo sheet no. - F45T15. The site approach road is connected to Mancheswar IE Road to VSS Nagar Road. The total site area is approximately 3.019 Acres. Project Site is well connected to Bani Vihar Station-0.91 Km-S, Bhubaneswar Railway station-3.95Km-SW, Bhubaneswar Airport-6.81 Km-SW,NH-316-0.97 Km-SE, Biju Pattanaik Airport – 6.81 km –SW.
5. Distance direction of Eco sensitive area are Nandankanan Zoological Park -10.1km – NNW, Chandaka Forest & Elephant Reserve- 12.60 Km-NW, Bharatpur PF-6.27 km –W, Nayapali RF-6.12 Km-W, Jagannath Prasad PF-6.78 Km-NW, Daspur RF-12.5 Km-W, Bhola RF-12.92 Km-NNW, Mendhasal RF-13.06 Km.
6. The site is coming under Bhubaneswar Development Authority.
7. The total plot area is 12224 sqm and Total built up area = 24924.18 Sqm.
8. The Building Plan for Construction and Expansion of M/s Sparsh Optimum Healthcare Private Limited is B+G+F to B+G+7 stories Super Specialty Hospital.
9. **Area Statement:**

SL.NO	LANDUSE	SQM	% of total plot area
1	Ground Coverage Area	2697.15	22.1
2	Internal Road	2329.16	19.1
3	Paved Area	1080.75	8.8
4	Green Belt Area	3456.06	28.3
5	Open Parking on ground	1769.61	14.5
6	Other Services Area	891.50	7.3
	Total	12224.23	100.00

PLOT AREA = 12224.23.Sqm. (AC. 3.019 Dec.)				
No.	floors	Built up Area In Sqm	Deduction Sqm	F.A.R Area Sqm
1	Basemet	6138.85	68.23	6070.62
2	Ground Floor	2669.74	68.23	2601.51
3	First Floor	2669.74	232.49	2437.25
4	Second Floor	2669.74	68.23	2601.51
5	Third Floor	2117.7	68.23	2049.47
6	Fourth Floor	2117.7	83.39	1541.13
7	Fifth Floor	2117.7	133.35	1984.35
8	Sixth Floor	2117.7	133.35	1984.35
9	Seventh Floor	2117.7	133.35	1984.35
10	Stair Cabin	187.61		187.61
Total Built up Area		24924.18	988.85	23935.33

Total FAR Area	=	23935.330 SQM
Req. Parking =30 %		7,180.60
Total Parking in basement	=	2053.200
Total Parking on Ground	=	5136.110
Provided Parking	=	7189.31
FAR =1.99		
Req. open Space-30% of total layout		3593.240
Provided Open space		9087.4

10. Water requirement:

Sl.no.	Summary of Water Demand	Round off	Units
1	Fresh water demand	171	kl
2	Flushing water requirement (from STP)	50	kl
TOTAL WATER REQUIREMENT		221	KL
3	Waste water flows to STP	148	kl
4	Waste water flows to ETP	50	KL
TOTAL Sewage/effluent generate		200	KL
5.	Treated Water Recovered from STP	180	KL
6.	Re-Use of Treated Water from STP		
	Flushing Water Requirement	50	KL
	HVAC Cooling tower	105 (20 kl fresh water)	KL
	Gardening and Landscape assumed	25	KL
	Total water reuse	180	KL
	Excess treated water discharge to Municipal Sewer (If any)	0.0	KL

11. **Wastewater details:** the wastewater will be treated in STP of Capacity 200 KLD & ETP of Capacity 60 KLD.

12. **Power Requirement:** Total Demand Load (KW) - Existing- +Proposed= 3334.4 KWH or 4167.8 KVA. The power supply shall be supplied by Odisha state electricity Board. The electricity will be taken from TPCODL. 2x 2200 DG Sets are provided.

13. **Rainwater harvesting details:** Total Runoff from Storm Water from Site is 32 m³/Hr and 768 cum/Day. So 68 nos. Rain water Harvesting Pits are required. The rain water overflow from all Rain water harvesting pit shall be channelized into a central sump. Storm water from this sump can be pumped or connected to City Storm Water drain line.

14. **Parking Requirement:** Total parking area provided 7189.310 Sq.mt. and also in terms of 422 ECS for 4 Wheeler and 122 ECS for 2 Wheeler. Adequate provision of 7189.310 sqm (30 % of total FAR Area as per ODA planning standards) will be kept for car/vehicles parking at the Basement as well as Ground / surface parking purpose.

Description	No. Of ECS	Area
4-wheeler parking	95	Basement
4-wheeler parking	300	Ground Floor
2-wheeler parking	105	Basement
Visitors Parking		
4-wheeler parking	27	Ground Floor
2-wheeler parking	17	Ground Floor

15. **Solid waste generation:** During the operation phase, waste will comprise domestic as well as Biomedical waste. The solid waste generated from the project shall be mainly MSW (Municipal solid waste) approx. 561kg/day, biomedical waste from clinical building 99 kg/day. Components are being collected in separate bins. The disposal of recyclable and non-recyclable waste and Biomedical waste is being done through the government approved agency.

SN.	Description of module	NO. of Bed	Total Hospital waste per Bed and per Capita (kg/day)	Total Medical Waste (including Bio Medical Waste) (kg/day)	Bio Medical Waste (@15% of total Medical Waste)	BIO DEGRADABLE waste (in kg/day)	NON-BIO waste (in kg/day)
1	Patients Bed	300	Assumed @ 1.5 Kg/ beds	450			
2	visitors (OPD)	1050	Assumed @ 0.200 Kg/ day	210			
	Total			660	99	224	336.6

16. **Greenbelt development:** The site comprises of approx. 3456 sqm (28.3 % of total plot area) as a green belt. As per MoEF no. of trees are required for development of Greenbelt area is 155 nos. Provision for plantation shall be given at the rate of minimum 1 tree per every 80 sq. mt. area covered under road and open space.

17. **Project cost:** 20. The estimated project cost is 118 Cr and cost for EMP is capital cost- 240 Lakh Annually recurring cost 21.8 Lakh.

18. **Environment Consultant:** The Environment consultant **M/s Visiontek Consultant Services Private Limited, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee.

19. The SEAC in its meeting held on dated **10-05-2024** recommended the following:

A. The proponent may be asked to submit the following for further processing of EC application:

- a) Submit the approval letter from BMC for the previous plan and proposed expansion plan.

- b) Comprehensive note on construction already carried out and expansion proposed thereof.
- c) Permission for water usage from IDCO/Water Resources Department.
- d) Submit the land-use break-up plan
- e) Permission from AERB for provision of radioactive treatment facility.
- f) Revisit the parking area details provided in % of total built up area as per norms, in form of ECS, provision for separate staff parking and visitors parking. Total area statement for stilt & ground/open parking.
- g) Submit traffic study vetted by institution of repute.
- h) Permission for storm water and excess treated sewage water discharge to IDCO drain.
- i) Structural stability report for the expansion project.
- j) Detailed layout w.r.t. greenbelt, parking, rainwater harvesting, fire corridor, treatment facility provision.
- k) Land document & agreement with IDCO.

B. The proposed site shall be visited by Sub-Committee of SEAC to verify the followings

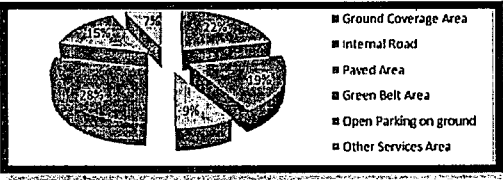
- i) Environmental settings of the project site.
- ii) Verify if the site is a flood prone area.
- iii) Construction activity if any started at the site and extent of construction activity.
- iv) Road connectivity to the project site.
- v) Drainage network at the site.
- vi) Discharge point for discharge of treated water and distance of the discharge point from the project site.
- vii) Site visit regarding the layout of basement and boundary wall, distance left for recharge pits and greenbelt space from basement and boundary wall.
- viii) Any other issues including local issues.

20. The proponent has furnished the compliance and the SEAC verified the same as follows:

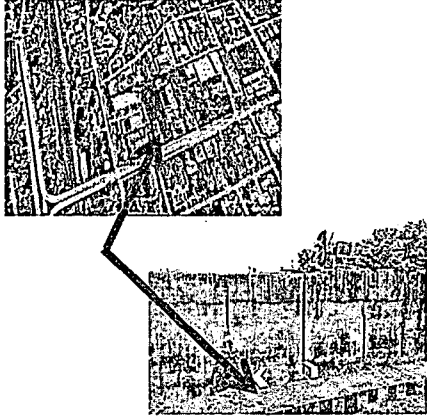
Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Submit the approval letter from BMC for the previous plan and proposed expansion plan.	BMC Approval Letter for Previous: letter no. 26534, Bhubaneswar, dated 21/09/2019, FILE NO. MBP/BMC-02-0102/2018. Attached as Annexure-(a-1). Receiving letter of Submission for Approval of Expansion plan: letter no. IDCO-Mswar/2023-24/001 on dated 15th December 2023. Attached as Annexure-(a-2)	BMC approval letter for previous construction has been attached as Annexure-(a-1) . However, the Annexure-(a-2) is the request letter submitted to Chief Town Planner-Special planning Authority for approval of the expansion proposal.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent			Views of SEAC
		Description	As per Previous approved building plan	As per Proposed (Existing+ Expansion) building plan	
2.	Comprehensive note on construction already carried out and expansion proposed thereof.	TOTAL PLOT AREA	12224 sqm	12224 sqm	Annexure-b (1) attached is the Undertaking from Design Architect. However, it for a basement area of 4700sqm in contrast to the present basement area of 7089sqm.
		Plot no and Khata No.	IDCO Drawing Plot No- 126 corresponding to Revenue Plot No- 5052(P), 5054(P), 5050(P), 5051 (P), 5049(P), 4964(P), 5056(P), 4965(P), Khata No- 1030, 864, 987, 1000, 1027, 141, 1015 in Mouza- Gadakana, Industrial Estate, Mancheswar under Bhubaneswar Municipal Corporation.	IDCO Drawing Plot No- 126 corresponding to Revenue Plot No- 5052(P), 5054(P), 5050(P), 5051 (P), 5049(P), 4964(P), 5056(P), 4965(P), Khata No- 1030, 864, 987, 1000, 1027, 141, 1015 in Mouza- Gadakana, Industrial Estate, Mancheswar under Bhubaneswar Municipal Corporation.	
		TOTAL BUILT -UP AREA	14729.50 sqm	24924.18 Sqm	
		Configuration of Building	B+GROUND +1 Basement Floor Area - 7586.16 sqm Ground Floor Area -4113.54 sqm First Floor - 3029.80 SQM FAR-0.58	B+GROUND +7 Basement Floor Area - 6138.85 sqm Ground to Second Floor area -2669.74 sqm (Typical Floor area) 3 rd to Seventh -2117.7 sqm (Typical Floor area) FAR-1.99	
		Height of the Building	7.80 Mtr	30 mtr	
		No. of BED	NA	300	
		Parking area	7030.74 sqm	7189.31	
		Description	Constructed	Will be	

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent		Views of SEAC	
			area as per As per Previous approved building plan	constructed carried out As per Proposed (Existing+ Expansion) building plan	
		TOTAL PLOT AREA	12224 sqm	12224 sqm	
		TOTAL BUILT -UP AREA	14729.50 sqm	24924.18 Sqm	
		Configuration of Building			
		Height of the Building	7.80 Mtr	30 mtr	
		<p>It is to certify that vide letter No. 26534, Bhubaneswar, dated 21/09/2019, FILE NO. MBP/BMC-02-0102/2018 of Bhubaneswar Municipal Corporation, Bhubaneswar (copy enclosed) a total BUA 14729.50 sqm has been allowed. Considering to the permission, 7089sqm had taken up at the basement i.e., Raft flooring and few columns in the year 2019, and that is within the permission limit of BMC's above dated order.</p> <p>Undertaking from Design Architect is attached as Annexure - b (1).</p>			
3.	Permission for water usage from IDCO/Water Resources Department.	<p>Municipality water supply/IDCO Supply/Ground water</p> <p>1. For IDCO Supply: Agreement with IDCO is attached as Annexure – C - (1)</p> <p>IDCO has an agreement with Sparsh Optimum which states that: - The lessee shall pay maintenance charges to the lessor for maintenance of all common amenities like roads, public health works, drainage, sewerage disposal system etc. in respect of the property in the industrial estate, as decided by IDCO from time to time.</p> <p>The lessee (Sparsh Optimum Healthcare Pvt. Ltd.) already paid all charges for consumption of electricity, water etc./ground water etc. directly to the concerned authorities (IDCO).</p> <p><small>9. The lessee shall pay to the Lessor maintenance charges for maintenance of all common facilities like roads, public health works, drainage, sewerage disposal system etc. in respect of derelict property in Industrial Estate as decided by IDCO from time to time.</small></p>		<p>They have attached the Ground water NOC from CGWA for ground water extraction as Annexure-C-(2).</p> <p>However, in the lease deed attached as Annexure-C-(1) does not contain any information regarding Permission for water usage from IDCO/Water Resources Department</p>	

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7.	Submit traffic study vetted by institution of repute.	Traffic study Report is attached as Annexure-G (1)	They have submitted the traffic study report. However, Traffic study report has not been vetted.																																																																																																																		

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8.	Permission for storm water and excess treated sewage water discharge to IDCO drain.	<p>9. The lessee shall pay to the lessor maintenance charges for maintenance of all common facilities like roads, public health works, drainage, Sewerage disposal system etc. in respect of abraded property in Industrial Estate as decided by IDCO from time to time.</p> <p>IDCO has an agreement with Sparsh Optimum which states that: - The lessee shall pay maintenance charges to the lessor for maintenance of all common amenities like roads, public health works, drainage, sewerage disposal system etc. in respect of the property in the industrial estate, as decided by IDCO from time to time.</p> <p>The lessee (Sparsh Optimum Healthcare Pvt. Ltd.) already paid all charges for consumption of electricity, water etc./ground water etc. directly to the concerned authorities (IDCO).</p> <p>1. Agreement with IDCO is attached as Annexure-C-(1) DRAINAGE NETWORK</p> 	Submitted.
9.	Structural stability report for the expansion project.	Structural stability Certificate is attached as Annexure-I-(1).	Submitted.
10.	Detailed layout w.r.t. greenbelt, parking, rainwater harvesting, fire corridor, treatment facility provision.	Layout plan with greenbelt is attached as Annexure-J-(1), parking in Annexure- J-(2), Rainwater harvesting in Annexure- J-(3), Fire corridor in Annexure- J-(4) Firefighting arrangement in proposed hospital will be based on Fire recommendation approved by Fire officer & treatment facility provision in Annexure- J-(5).	Submitted. However, Firefighting recommendation for the proposed expansion has been applied attached as Annexure- J-(5).
11.	Land document & agreement with IDCO.	Land document & agreement with IDCO attached as Annexure-K-(1).	Submitted.

21. The proposed site was visited by the sub-committee of SEAC on 08.06.2024. Following are the observations of the sub-committee.

- a) The site is allotted by IDCO as informed by PP; hence infrastructures are available.
- b) There is part construction observed up to ground level as per previous approval.
- c) The land is connected with road and other infrastructures.
- d) PP was advised to submit the following:
 - i) A certificate by BDA empanelled Architect with regard to construction actually done.
 - ii) Relevant documents signed with IDCO for infrastructure provision.
 - iii) Copy of old approval.
 - iv) Traffic study after vetting by a reputed institute.
 - v) Plan for disposal of hospital wastes.
- e) PP should take permission from the authority for management of radioactive waste if any
- f) All other points asked during presentation to be complied.

After detailed discussion, the SEAC decided to take the decision on the proposal after receipt of the following from the proponent as raised during site visit.

- a) A certificate by BDA empanelled Architect with regard to construction actually done.
- b) Relevant documents signed with IDCO for infrastructure provision.
- c) Copy of old approval.
- d) Traffic study after vetting by a reputed institute.
- e) Plan for disposal of hospital wastes.
- f) PP should take permission from the authority for management of radioactive waste if any
- g) The permission from Bhubaneswar Municipal Corporation, Bhubaneswar issued vide Memo No. 26535 dated 21st September 2019, submitted along with ADS, is for discharge of rainwater to the public drain. Similar permission for discharging excess treated water effluent also needs to be obtained.

ITEM NO. 05

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S FEDDERS ELECTRIC AND ENGINEERING LIMITED FOR PROPOSED INSTALLATION OF 1.5MTPA IRON ORE BENEFICIATION PLANT OVER AN AREA 24.635 ACRES (9.969HA.) AT VILLAGE-SANINDIPUR, KOIDA, DIST.- SUNDARGARH OF SRI DINESH SHARMA - EC

1. This proposal is for Environmental Clearance for M/s Fedders Electric And Engineering Limited for proposed Installation of 1.5MTPA Iron Ore Beneficiation Plant, over an area 24.635 acres (9.969Ha.) at village - Sanindipur, Koida, Dist. - Sundargarh of Sri Dinesh Sharma.
2. **Category:** As per the EIA Notification S.O. 1533, dated 14th September 2006 and subsequent amendments, this proposed project falls under Category "B", Project or Activity 2 (b) - Mineral Beneficiation.

Proceedings of the SEAC meeting held on 25th July 2024

J Nayak
Environmental Scientist, SEAC

3. The Terms of Reference (TOR) was granted for the proposed project vide letter no. SIA/OR/IND1/446440/2023 dtd 06.01.2024.
4. **Public Hearing** for the proposed project was held on 28th Feb., 2024 at 10:30 am at Weekly Hata Padia of Village Sanindpur under Koira Block in District of Sundargarh. Issues raised during public hearing - Employment, Environmental Pollution, Education, Infrastructure Development, Plantation, Health, etc. Under CER Budget Rs. 135 lakhs has been proposed towards issues raised in Public Hearing.
5. **Location and connectivity:** The project site is located at Village - Sanindipur, Tahasil – Koira, District-Sundargarh, State – Odisha. It is bounded by geographical co-ordinates of latitude 21°55'16.05"N to 21°55'4.67"N & Longitude 85°18'6.61"E to 85°18'4.12"E bearing Topo sheet No. - F45N1, F45N5, F45N8. The nearest Village – Sanindpur at 0.4 Km in South direction, Nearest Town - Koida at 6 Km in West direction, Nearest State/National Highway is NH-520 at 6 Km in North West direction, Nearest Railway Station/Railway line - Barsuan Railway station at 30 Km in West Direction, Nearest Airport - Veer Surendra Sai Airport, Jharsuguda at 130 Km in West direction, Water Bodies nearby are - Karo nadi at 7.9 Km in West direction, Sunanadi at 0.7 Km in East direction, Tehri nala at 2.4 km in South direction. No Protected Forest present within 10 Km radius of study area, however 6 Reserved forests are present (Mendhamaruni RF at 1.2 Km in West direction, Siddhamath RF at 4.2 Km in NE direction, Kathamal RF at 5.28 Km in West direction, Bhabani Paharah RF at 6.8 Km in South direction, Karo RF at 7.3 Km in West direction, Khajurdihi RF at 8.5 Km in SSW direction).

6. **Total production:**

Sl.No	Mineral	Quantity (TPA)	Source (Near Plant)	Road Distance from Site in Km	Mode of Transport
1.	Iron Ore Fines	1.5 MTPA	Nearby Iron Ore Mines	5 - 10 Km from the Project Site	By Road

7. **Land use pattern:**

Sl. No.	Type of land use	Net area considered for financial assurance.	At conceptual stage
1	Area of excavation	0.477	1.874
2	ROM stock yard	0.331	0.331
3	Waste dump	0.184	0.184
4	Stock yard blocks	0.290	0.290
5	Stock yard presently non-salable	0.155	0.155
6	Processing Yard	0.152	0.152
7	Parking	0.122	0.122
8	Roads	0.155	0.155

8	Infrastructure, (first aid, rest shelter Etc.)	0.250	0.250
9	Workshop	0.037	0.037
10	Safety zone	0.709	0.709
11	Total area utilized	2.740	4.137
12	Backfilled /reclaimed area	0.000	3.023
13	Un-utilized area	2.221	3.847
	Total Area	4.961	4.961

8. **Waste generation and management:** There will be generation of solid wastes in the form of Tailings. These will be collected in tailing storage area of 2.021 Acres & disposed to low lying areas available in the locality. A total of 0.45 MTPA hazardous wastes in the form of Oil residues (Cat 5.2) containing oil will be generated at a maximum of about 2.5 tonnes per annum.
9. **Mitigation Measures of wastes produced:** A total of 0.45 MTPA Tailing wastes will be produced. It is proposed that the tailings will be stacked in a safe and scientific manner and as and when an opportunity arises, the tailing material will be used for making roads, filling low lying areas, etc. Disposal of tailings to the nearby cement industries, tiles, paver manufacturers is envisaged. Part of the generated tailing will also be used for brick making. The generated used oil will be stored in containers over impervious floor under well-ventilated covered shed followed by disposal through actual users having valid authorization from SPCB, Odisha.
10. **Baseline Study Monitoring:** The baseline study was carried out on March to May 2023 (Summer Season).

AAQ parameters	PM ₁₀ – 49.8 to 74.6 µg/m ³ PM _{2.5} – 25.1 to 38.1 µg/m ³ SO ₂ – 7.1 to 15.9 µg/m ³ NO _x – 9.1 to 15.8 µg/m ³ CO – 0.31 to 0.67 mg/m ³
Ground Water quality	pH – 7.42 to 7.69, Alkalinity – 54 to 73 mg/l, Chloride – 28.4 to 33.6 mg/l, Total Hardness – 97 to 138.4 mg/l, TDS – 169 to 187 mg/l.
Surface water quality	Color - Below 5 Hazen, pH – 7.74 to 7.59, DO – 6.3 to 7.5 mg/l, BOD – 2.3 to 3.7 mg/l, COD – 11.5 to 18.5 mg/l.
Soil quality	pH – 5.86 to 6.9, Conductivity - 47 to 143 µs/cm, Moisture% - 6.3 to 10.1%, Potassium – 630 to 812 mg/kg, Nitrogen – 27.6 to 41.3 mg/kg
Noise levels Leq (Day & Night)	Ambient noise reaches 43.4 to 59.9 dB (A) during daytime and 35.9 to 45.2 dB (A) during night time.

11. **Water requirement:** About 25 KLD water is required for the construction Phase. The source of water for the proposed green-field project will be from SUNA River flowing at a distance of 0.7 km. The water requirement for the proposed green-field project is estimated at 1200 m³/day (50 m³/ hr). The company has applied for water drawl permission for 1200 KLD from

the Department of Water Resources, Govt., of Odisha with applicant Number 2024031941000636 dated 19th March, 2024.

12. **Wastewater management:** The domestic water required for the project is 4.8KLD out of which waste water of about 4KLD will be generated. This 4 KLD waste water will be treated in STP of 5KLD capacity & will be reused in greenbelt area & for dust suppression purpose. As the project is proposed to have Zero Liquid Discharge (ZLD), no negative impact is envisaged on any surface water bodies in nearby areas.
13. **Rainwater harvesting:** Rainwater runoff available from the rooftop and paved land will be collected & gathered in the settling Tank during retention period after that it will be sent to harvesting pit which will contribute to ground water recharge purpose. Estimated Rain water harvesting potential is 47770 m³ for the project area. So, annually harvested rain water of volume 47770 cum can be recharged to the ground water.
14. **Power requirement:** Total 3.5 MW of power will be required for the proposed green-field project which will be sourced from Nearest Grid. Permission will be taken from competent authority. There will be installation of 1 DG set of 500 KVA for backup during power failure. It has been proposed to install solar lights around the plant boundary & internal road of the plant area, with the view of green energy production and easiness of operation and lower cost in a few specific cases.
15. **Greenbelt:** Out of the total plant area of 24.635 acres, 8.576 acres (3.47 ha) (i.e., 34.087%), area will be developed as green belt/plantation all around the plant boundary, roadside, office, building & stretches open area within the premises. Gap plantation will be carried out to meet the requirement of 2500 trees per Hectares.
16. **Manpower requirement:** The manpower requirement will be about 60 contractual persons during the construction phase and 73 persons during the operation phase. Preference will be given to the locals as per their eligibility.
17. **Project cost:** The overall cost of the project is Rs.98 Crores. Total capital Cost for Environmental Pollution Control Measures Rs. 0.672 Crores. Recurring cost per annum for Environment Pollution Control Measures Rs. 0.134 Crores. Budget allocated for PH Compliance is Rs. 135.5 lakhs.
18. **Environment Consultant:** The Environment consultant **M/s Visiontek Consultant Services Private Limited, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee.
19. The SEAC in its meeting held on dated **10-06-2024** decided to take decision on the proposal after receipt of the following information / documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
1.	Submit the holding capacity of the slime ponds provided and the proposed phase wise development.	The slime pond is Emergency Pond in case of filter press pump or maintenance slurry can be purged to pond and the clarified water will be recycled back to process via High-rate

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		<p>tailing thickener for clarification.</p> <p>Slime pond holding capacity: Dimension: 70m length x 10m width x 3m Height = 2100m³</p> <p>Thus, the Slime Pond will have holding capacity of 2100 m³.</p> <p>Phase wise development: Initially, only one slime pond is proposed, which will be developed during construction stage of the proposed plant. In future IOBP expansion and Integration, one additional pond of same dimension of 70m x 10m x 3m will be constructed.</p>
2.	<p>The proponent shall use only one slime pond at one time and keep another slime pond. However, the project proponent has mentioned that the slime pond will be used only for emergency purpose.</p>	<p>In iron ore beneficiation process, it is proposed to install Tailing thickener with Filter press for tailing management. The thickener underflow slurry is pumped to hydraulic filter press. The slurry is squeezed and the filtrate water is recycled back to process via Tailing Thickener. The tailings in form of filter cake are conveyed and stacked.</p> <p>In normal operation slime pond is not used. However, in case of filter press operation and maintenance issues, slurry may be purged to slime pond and weir overflow water also recycled back to process. So, the use of pond is Emergency in nature and will be used only when required during maintenance and not in continuous use in-line with process operation.</p>
3.	<p>Detailed note on the mass balance for input & output grade of the iron fines, total production and waste generated. Material Balance should depict the whole process along with grade of iron i.e. Input grade, output grade, cut-off grade, reject grade and final product grade.</p>	<p>Detailed note on the material balance for input & output grade of the iron fines, total production and waste generated along with chemical composition (grade) of the input and output materials is provided in Annexure 1.</p>
4.	<p>Brief note on the management & utilization of Tailings.</p>	<p>The tailing from IOBP generated from Desliming and Magnetic separator tailings</p> <p>The tailings in form of lean slurry are pumped to Tailing thickener for thickening and clarification.</p> <p>The overflow clarified water is recycled back to process. The underflow thickened slurry is fed to Hydraulic filter press for pressure filtration. The slurry is squeezed through filter cloth and the filtrate is recycled back to thickener for</p>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		clarification. The tailings in form of solid cake are discharged in conveyor and stacked at demarcated area for tailing stackyard. Tailing Utilization: <ol style="list-style-type: none"> 1. Road and Mine filling 2. Brick making 3. Ceramic Tiles making 4. Cement clinker raw material A brief note on Management & utilization of tailings is provided in Annexure 2 .
5.	Submit traffic study report vetted by institute of repute.	The report is vetted with OTR Bhubaneswar (formerly CET Bhubaneswar). Report attached Annexure 3 .
6.	Total solar energy to be generated in project it should be at least 10% of total power demand.	Agreed. Company will be complied to it during Project execution. Attached herewith a technical write-up for the same as Annexure 4 .
7.	Detailed report on the total surface runoff and Surface Runoff Treatment System.	Detailed report on the total surface runoff and Surface Runoff Treatment System is provided in Annexure 5 .
8.	Chemical analysis report of the pressed filter cake produced.	Chemical analysis of the pressed filter cake: Fe = 43-44%, Al ₂ O ₃ = 10-11% , SiO ₂ = 12-15%, LOI = 7-12%, TiO ₂ = NA, MgO = 0.1-0.5%, CaO = 0.1-0.6%, Na ₂ O= 0.1-0.5%, K ₂ O=0.01-0.05% Analysis results of Filter cakes produced in other similar operating plant (Source: Indrani Patnaik, KJ Ahluwalia, PMPL-Aditya Birla) is attached as Annexure 6 .
9.	List of suppliers for raw materials with supporting documents.	Letter of Intent regarding raw material supply is received from Raikela Iron Ore Mines (Gitarani Mohanty) & SN Mohanty Mines. Copy attached in Annexure 7 .
10.	Slime generation and management details may be provided	Slimes in the iron ore beneficiation plant are tailings having low Fe content, that are generated after recovery of high-grade iron ore from the ROM iron ore processed in the plant. The tailings generation and management are discussed in Annexure 2 above.

Considering the information furnished and the presentation made by the consultant, **M/s Visiontek Consultant Services Private Limited, Bhubaneswar** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – D** in addition to the following specific conditions:

- i) The waste water that will be generated from the tailings shall be treated in ETP following appropriate standard technical procedure.

- ii) The PP shall obtain NOC to use the Panchayat roads from the concerned BDO for transportation of both input materials and finished products including the responsibility of maintaining the road if damaged by such transportation.
- iii) As the PP will implement the dry stacking of tailings, there will be trickling down of effluent. Also during rain, the leached effluent from stack will trickling down. PP shall ensure collection of these effluents for treatment with routine analysis to ensure satisfying the standard before it is discharged. All data shall be kept for periodical compliances.
- iv) The PP shall maintain ZLD.

ITEM NO. 06

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. FALCON REAL ESTATE PVT. LTD. FOR EXPANSION OF RESIDENTIAL BUILDING COMPLEX "FALCON TATVA" OVER TOTAL PLOT AREA: 15474.6477SQM WITH TOTAL BUILT UP AREA INCREASE FROM 94209.41 SQM TO 111088.53 SQM AT MOUZA - DUMDUMA,TAHASIL - BHUBANESWAR OF SRI SOUNIK KAJAL KUMAR DASH- EC

1. This proposal is for Environmental Clearance of M/s. Falcon Real Estate Pvt. Ltd for Expansion Of Residential Building Complex "Falcon Tatva" over total plot Area: 15474.6477sqm with Total built up area increase from 94209.41 sqm to 111088.53 sqm at Mouza - Dumduma, Tahasil - Bhubaneswar of Sri Sounik Kajal Kumar Dash.
2. **Category:** This project falls under Category "B", Project or Activity 8(a): Building & Construction Projects as per EIA Notification dated 14th Sept, 2006 as its amendments.
3. As per the EIA Notification, 14th September, 2006, the existing and expansion built up area is less than 1,50,000 sqm.
4. **Location and connectivity:** The site is located adjacent to the local landmarks, spark furniture and in front of Cosmopolis Residential apartment. Total land required for this proposed project is 15474.6477 sqm 3.82 Ac. or 1.547 Ha. Kisam of land is Gharabaari. The Proposed Construction of Residential Housing Project 1 Blocks (2B+G+22) residential apartment & One Block of (2B+G+2) Society building over plot no. 499/6204,499/6202, 499/6203, 499/6207, 499/6206,499/4493,499/4454,496/2534,496/6452,496/6453,496/4145,496/6335,497,498,500,501,493/5958.Khata No-432/5085,432/5086,432/4995,32/2465,432/2254,432/5368,432/5408,2618,432/4870, 432/2128,432/5190,432/5369,432/5370 at Mouza: Dumduma, Tehsil: Bhubaneswar, District: Khurda, Odisha. The project site falls under Topo sheet No.F45T15 of Survey map of India. The project site is well connected to NH-16, adjacent to the project site in NW direction, NH-316 approx. 7.7 km in E direction and SH-13 approx. 12.6 km in SW direction. The nearest railway station is Bhubaneswar Railway Station approx. 8.1 km in NE direction from the project site and Biju Patnaik International Airport is at a distance of approx. 2.4 km in East direction from the project site. The distance & direction of Eco sensitive area is as follows: Ghatikia PF-2.4 km (NW), Chandaka Dampara- Wildlife Sanctuary 3.9 km (N), Bharatapur PF -4 km (N), Mendhashala RF -6.2 km (NW), Dasapur RF- 8.7 km (NW), Ratanapur PF-12.1 Km-(W).
5. The site is coming under Bhubaneswar Municipal Corporation (BMC).
6. **Statutory clearances obtained:**

- NOC from PHD for water supply and sewerage connection to the proposed residential project vide letter no. 16465 on dated 07/11/2022.
 - Clearance from CGWA in respect of tapping of Ground water vide their NOC NO: CGWA/NOC/INF/ORIG/2022/17417 On Dt. 28.12.2022
 - Revised Application For getting NOC from CGWA :21-4/4468/OR/INF/2022
7. The total plot area is 15474.6477sqm or 3.823 Ac/1.547 Ha. The total Built up Area to be increased from 94209.41 sqm to 111088.53 sqm with Plot Area -16895.90 Sqm. (Possession Area) and NH Road And Drain Affected Area - 1421.25 Sqm.

8. LULC of project site:

Land use breakup of net plot area	Area in sqm	% of total plot area
ROOFTOP AREA /GROUND COVERAGE AREA	5256.73	34
Driveway / Paved podium area	3853.23	46
Green area	3094.9	20
Total plot area	15474.6477	100

9. Area Statement:

SI no.	Parameter of the proposed project	As Per Previous EC (Area in SQM)	Proposed (Area in SQM)
	Plot are involved in proposed project	At Plot No. 499/6204, 499/6202, 499/6203, 499/6207, 499/6206, 501, 499/4493,496/2534,496/6452 ,496/6453,496/4145,497,498, 496/6335, 495, 500, 499/4454, Khata No. 432/5085, 432/5086, 432/4870, 432/5190, 476/2,	499/6204,499/6202, 499/6203, 499/6207, 499/6206, 499/4493, 499/4454, 496/2534, 496/6452, 496/6453, 496/4145, 496/6335, 497, 498, 500,501, 493/5958 Khata No-432/5085, 432/5086,432/4995, 432/2465,432/2254,432/5368,432/5408,
		432/4995, 432/2254, 432/5370, 432/5369, 432/5368, 463/48, 432/2128, 432/2465, 2618, 432/5408, at Mouza: Dumduma, Tehsil: Bhubaneswar, District: Khurda, Odisha	2618,432/4870,432/2128,432/5190,432/5369,432/5370 at Mouza: Dumduma, Tehsil: Bhubaneswar, District: Khurda, Odisha
i)	Total Plot Area	17,248.51	16895.9
	a. Land affected by road	429.32	1421.25
	b. Land affected by drain	962.81	
	Net Plot Area (a-b)	15,856.37	15474.6477
ii)	Permissible Ground coverage (@30% of net plot area)	4,756.91	

Sl no.	Parameter of the proposed project	As Per Previous EC (Area in SQM)	Proposed (Area in SQM)
iii)	Proposed Ground coverage ((a), of net plot area)	4,543.20	5256.737824
iv)	Permissible F.A.R ((a), 6% of net plot area)	95,138.22	
v)	Proposed F.A.R ((a),	65,392.80 (4.12% of net plot area)	83837.30 (5.42% of net plot area)
	a. Residential	64,028.52	82051.14
	b. Society area	1,364.28	1786.11
vi)	Non FAR	7,256.11	28921.98(including covered parking)
	a. Residential	7,240.92	84944.39
	b. Society area	15.19	978.77
vii)	Basement Area	21,560.50	25,578.00
	a. Basement level-1	10,987.68	12133.00 (B.U.A) + 574.35 (FAR)
	b. Basement level- 2	10,572.83	12225.03 (B.U.A) + 645.61 (FAR)
viii)	Total Built up area	94,209.41	111088.53
ix)	Maximum Height of the Building (m) (Till Mumtv level)	58.10 m	Block-1: 71.17 M Block-29.20 m
x)	Landscape area (21.43 % of net plot area)	3,398.26	3,398.26
xi)	Parking (Including Visitors Parking)	19636.49 (2,108.528)	25369.11
xii)		618 ECS	7600.44
xiii)	Basement-1 (Lower)-	9,029.30	11205.29
xiv)	Basement-2 (Upper) parking-	9,802.58	11601.05
xv)	Ground Floor	719.61	1940.03
xvi)	Open parking	85	2562.77
xvii)	Roof top rainwater tank 2 nos.	125 KL +120 KL	
xviii)	No. of Dwelling Units	268	346
	a) 3 BHK	68	4
	b) 3.5 BHK	128	84
	c) 4BHK	68	171
	d) Pent house	4	83
xix)	Land use breakup of net plot area		
xx)	Rooftop Area /Ground	3477.1	5256.73

Sl no.	Parameter of the proposed project	As Per Previous EC (Area in SQM)	Proposed (Area in SQM)
	Coverage Area		
xxi)	Road Area		3853.23
xxii)	Driveway / Paved podium area	8747.8	3853.23
xxiii)	Green area	3398.26	3094.9
xxiv)	Unpaved area	233.21	
xxv)	TOTAL PLOT AREA	15,856.37	15474.6477

10. **Water requirement:** Total water requirement=314 KLD (Drinking + Flushing), fresh water requirement on daily basis =209 KLD and flushing water requirement = 105 KLD. The source of water supply is Ground water /Municipal water supply.

Parameter of the proposed project	As Per Previous EC (Area in SQM)	Proposed (Area in SQM)
Water Requirement	187 KLD(fresh-131+flushing-56)	314 KLD(fresh-209+flushing-105)
Source	Ground water	Ground water
Wastewater Generated	139 KLD	282 KLD
Treated Waste Water Reuse	56 KLD & 69 KLD discharge to nearest drain	254 KLD
STP capacity	170 KL	285 KL

11. **Wastewater details:** Total waste water generated from the residential building is 282 KLD which is treated in STP of Capacity 285 KLD. Treated waste water recovered from STP -226 KLD, out of which 175 KLD will be recycled within the project. During dry season there will be 50 KLD treated waste water discharged into municipal sewer and 90 KLD will become surplus in monsoon season.

12. **Rainwater harvesting details:** Total 18 nos. of Rainwater harvesting pits will be provided for storage of rain water.

13. **Parking details:** Total parking area provided is 25369.11sqm.

14. **Power Requirement:** Electricity requirement: 5764 KVA and Source of Power is TPCODL, Bhubaneswar. Power Back up source is 4 X 810 KVA = 3,256KVA silent DG Set. Total Solar Power Generation is 300 KW which is 5.0% of total power required in project.

Parameter of the proposed project	As Per Previous EC (Area in SQM)	Proposed (Area in SQM)
Power Requirement	4139 KVA	5765 KVA
Total Connected Load in Kw		5964 KW
Total Demand Load in KVA		5765 KVA
DG Set	2x1250 kva	4X810 KVA
Solar Lighting	10.12 %	300 KW (5% of total power consumption -5964 KW)

15. **Firefighting Installations:** Fire Fighting will be provided as per NBC Norms.

16. **Solid waste generation:** Solid waste generated and its management is as follows:

Parameter of the proposed project	As Per Previous EC (Area in SQM)	Proposed (Area in SQM)
Solid Waste	1160 kg/day	1166 KG/DAY
Biodegradable	464 KG/DAY	475 KG/DAY
Non-biodegradable	696 KG/DAY	691 KG/DAY

Management:

- Biodegradable waste (619 kg/day) will be treated with OWC (capacity-700 kg/day) and Non-Biodegradable waste through BMC.
- The recyclable material like thermocol, cartoon boxes, Glass, plastic, newspaper waste is given to the rag pickers for recycling.
- The sludge generated from the STP will be directly taken by sludge tank to municipal dump yard.
- Components are being collected in separate bins. The disposal of recyclable and non-recyclable waste and Biomedical waste is being done through the government. Approved agency.

17. **Greenbelt:** The green area 3095 sqm will be developed approx. 20 % of the total plot area. [193 nos. of tree].

18. **Project cost:** The estimated project cost is 472 Cr (Existing-450 Cr+ Expansion-22 Cr) and cost for EMP is capital cost- (Existing-450 Lakh+ Expansion-32 Lakh) 482 Lakh. Annually recurring cost 26.5 Lakh.

19. **Environment Consultant:** The Environment consultant M/s. **Visiontek Consultant Services Private Limited, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee.

20. The SEAC in its meeting dated **17-05-2024** recommended the following:

A. The proponent may be asked to submit the following for further processing of EC application:

- i) Justification as to why the proposal will not be considered as violation project as they have applied for Environmental Clearance post-facto.
- ii) Detailed layout of the greenbelt.
- iii) Comparative statement on all environment parameters for the existing and proposed project with justification.
- iv) Half yearly compliance report of the existing Environmental Clearance.
- v) Permission from the Chief Drainage Officer, EIDP for drainage water discharge.
- vi) Permission from NHAI for laying out of connection to the drain. Also, all other relevant clearances as per revised proposals.
- vii) The greenbelt should be increased to a minimum of 20%.

viii) Submit the Soil test Report carried on the proposed land.

B. The proposed site shall be visited by Sub-Committee of SEAC to verify the followings

- a) Environmental settings of the project site.
- b) To assess the details of the ground coverage for the existing and proposed project.
- c) Extent of construction activity and operational status of all the units.
- d) Road connectivity to the project site.
- e) Drainage network at the site.
- f) Greenbelt development in the existing plant.
- g) Solid waste management practice of the existing plant.
- h) Vacant land available.
- i) Any other issues including local issues.

21. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Justification as to why the proposal will not be considered as violation project as they have applied for Environmental Clearance post-facto.	In this regard, we would like to bring to your notice that, the said project was earlier approved and availed environment clearance having four towers of residential apartment. However, in this revised proposal the four towers are jointed together only at the ground level (not in any other top floors) to make it as one block of residential tower. Therefore, the coverage area of the earlier approval is increased from 4543.2 sqmt (28.65%) to the new approval of 5256.73 sqmt (33.97%). Rest all area such as basement floor, typical floor is not changed from its earlier approval and remains as it is. We hereby humbly request you to kindly consider the matter and avail us the environmental clearance for the said project.	----
2.	Detailed layout of the greenbelt.	The green area 3095 sqm will be developed approx. 20% of the total plot area. As per MoEF & CC, 193 no's of Tree will planted in around the project site of the plot area. The biodiversity in the area will increase due to the proposed green area. Layout plan showing green belt Development area is attached as Annexure-I .	-----

After detailed discussion, the SEAC decided to take the decision on the proposal after receipt of the following from the proponent as raised during site visit.

- i) Revised BDA Plan (if not submitted)
- ii) Certificate from BDA empanelled Architect that the current minor construction started is as per previous EC condition
- iii) Agree to construct retaining wall in the side of drain for safety
- iv) All statutory clearances including fire corridor to be taken for revised plan
- v) Permission for discharge of excess treated water to the adjacent drain to be taken.
- vi) Half yearly compliance report of the existing Environmental Clearance. As screen shot of application submitted in portal has been submitted in ADS.
- vii) It is not clear that changes are made only at ground level but number of floors have been increased (and dwelling units also). Secondly ground coverage was at @30% of net plot area but now it is @34%. Please clarify whether it is permissible.

ITEM NO. 07

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S BIVAB DEVELOPERS PRIVATE LIMITED FOR CONSTRUCTION OF B1+B2+G+11 STORIED RESIDENTIAL AND B1+B2+G+8 STORIED COMMERCIAL BUILDING OVER AN BUILT-UP AREA 66662.28 SQ. MT. LOCATED AT: SIPASURUBILI, DIST - PURI OF SRI BINAY KRISHNA DAS - EC

1. This proposal is for Environmental Clearance of M/s. Bivab Developers Private Limited for construction of B1+B2+G+11 storied residential and B1+B2+G+8 storied commercial building over a built-up area 66662.8 sq.mt. located at: Sipasurubili, Dist - Puri of Sri Binay Krishna Das.
2. **Category:** This project falls under Category "B", Project or Activity 8(a) - Building and Construction projects as per EIA Notification dated 14th Sept, 2006 as its amendments.
3. **Location and connectivity:** The project site is located at Plot no. 605, 606, 607, 608 & 609, Mouza- Sipasurubili, Dist- Puri, Odisha. The geo coordinates of the project are: Latitude and Longitude of 4 corners of the site (19° 47' 28.1" N, 85° 46' 57.7" E), (19° 47' 26.7" N, 85° 46' 53.9" E), (19° 47' 31.5" N, 85° 46' 52.4" E) and (19° 47' 32.4" N, 85° 46' 55.3" E) at four corners respectively. The project site lies adjacent to NH-316, 6 km from Sri Jagannath Temple of Puri, 1km from Sea Beach of Puri, 177m from Dhaudia River (NuaNai), 1.18 km from Dhaudia River Confluence with Sea and 1.07 km from Bay of Bengal. The site is well connected with Bus Stand of Puri at 8.3 km, 7.3 km from Railway Station of Puri, 34.5 km from Sun Temple of Konark and 63 km from Biju Patnaik International Airport of Bhubaneswar. The project site is covered under Survey of India Toposheet no. 74E/13 and kismam of the land is designated as Gharbari.
4. The project site is not located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC and CRZ area.
5. Total Plot area measures 15909.93m² (3.93 acre) and the proposed built-up area is 66662.28 m². The project comprises of: Residential Area and Commercial Block.
6. Composition of Composition of Residential Area

Proceedings of the SEAC meeting held on 25th July 2024

J Nayak
Environmental Scientist, SEAC

- 3 Blocks : with 12 Floors (G+11).
- 1 Block : with 11 Floors (G+10).
- Total no. of Dwelling Units: 332
- Studio Apartment: 44 nos.
- 1 BHK: 180 nos.
- 2 BHK: 108 nos.

7. Broad Facilities for Commercial Block

- 1 Block with 9 floors (G+8).
- 44 Shops
- 3 Banquet Halls
- Hotel with 68 Guest Rooms
- Restaurant and Food Court
- Spa and Gym

8. Area Statement:

S. No.	PARTICULARS	AREA (sq.m.)
i)	Ground Coverage	4702.88
ii)	Open Parking	291.37
iii)	Green Belt	3200
iv)	Set Back	1507.29
v)	Road & Misc.	6208.39
	Total plot Area	15909.93

9. **Water requirement:** The total water requirement during construction phase is 48 KLD which will be met from Ground water source. Bore well (5 nos.) have been proposed to fulfil the water requirement for which permission has been accorded by CGWA. During operational phase the water requirement is 270 KLD. The source of water during operation phase will be ground water. Out of total requirement of 270 KLD; 50 KLD will be met through fresh water (from ground water) and 220 KLD from recycled treated waste water from STP.

10. **Wastewater details:** The project will generate approx. 232 KLD of wastewater. The wastewater will be treated in STP of 250 KLD capacity which will be used for both commercial and residential units. The treated effluent (approx. 220KLD) will be reused for flushing, floor washing, chiller and gardening. Hence, there will 100% utilisation of treated waste water. During monsoon season, 30 KLD treated water will be discharged to the NH drain passing adjacent to the plot.

11. **Rainwater harvesting details:** Rain water @ 18360m³ per year will be harvested considering 1500 mm of annual rain fall over Ground Coverage (4700 m², Run Off Coefficient 0.9), Open Parking (291 m², Run Off Coefficient 0.8), Road (8922 m², Run Off Coefficient 0.8), Green Belt (3200 m², Run Off Coefficient 0.2). There will be 12 nos. of recharge pits each having dimension of 4.5 m length X 1.5 m width X 6 m depth. The excess storm water will be diverted through storm water drain to the external drainage system. The entire site shall be sub divided for recharging structures. It has been proposed to provide recharge pits for the desired purpose. Through the internal drainage network rain water will be diverted into percolation chamber to the recharge well.

12. **Parking details:** Total parking area provided will be 17552.77 Sq. Mt. The parking area will be provided in the basement and open parking area. Details of parking break up and ECS is as follows:

Parking Area Break Up

Particulars	Basement - 1	Basement - 2	Open/ Surface Parking	Total	Remarks	ECS (in nos.) (NBC)
Commercial Parking (in m ²)	2095.58	5675.71		7771.29		243
Residential Parking (in m ²)	4559.47	4930.64		9490.11	Residential Parking: 9053.12 Sq. M. Residential Parking (EWS): 436.99 Sq. M.	297
Open Parking/ Surface Parking (in m ²)			291.37	291.37		13
				17552.77		553

13. **Power Requirement:** There will be 2 separate transformer units for the residential and commercial block respectively. The electricity requirement for the project will be supplied from the TPCODL, Puri, Odisha. The total electrical load for the operation is expected to be 2000 KW or 2.5 MVA. For backup power, 2 nos. x 550 KVA DG will be installed within the premises. The solar panels will also contribute to 5% of the total electricity requirement of the project.

14. **Fire fighting Installations:** A peripheral road of 7.5m width having a load bearing capacity of 45 tons has been proposed for any fire emergency. Another 7.5m wide road will be running internally connecting the buildings which will also have a load bearing capacity of 45 tons and the fire tender path will be kept clear of any type of big plantations. 11th floor of every building will have a refuge area towards the external wall of the building where the people wait for the fire fighters in case of any emergency. The width of the staircase has been kept 1.5 m to 2m for easy movement during the time of any emergency. An external fire staircase with fire resistant doors to with stand fire up to 2-3 hours have been proposed for fighting such eventualities. Provision for wet risers and dry risers have all been provided for having sufficient measures to fight fire emergencies.

15. **Solid waste generation:** The waste generated would be approximately 574 Kg per day, including both the residential and commercial units. Out of which 230 Kg (574 x 40%) will be organic waste and 344 Kg. (574 x 60%) will be inorganic waste. Inorganic waste will be disposed through Puri Municipality. Individual waste bins will be installed at approach points for collection of inorganic waste by the Municipal workers and for organic waste a composting yard will be provided at ground floor with a Bio-Mechanical Waste Composter machine. Disposal of solid waste through segregation, collection and treatment and disposal in an environmentally sound manner to minimize the adverse impact on the environment. Segregation of waste in to three streams, Wet (Biodegradable), Dry (Plastic, Paper, metal, wood, etc.) and domestic hazardous wastes (diapers, napkins, empty containers of cleaning agents, mosquito repellents, etc.) and handover segregated wastes to authorized rag-pickers or waste collectors or local bodies.

16. **Greenbelt:** Green belt will be developed over an area of 3200 sq. mt. which is 20% of the total plot area. Total 800 nos. of plants to be planted and the spacing will be 2 m. for trees, 1 m. for shrubs. The plantation mainly will be carried out along the boundary and the open space. It will be 3 tier plantations.
17. **Traffic study** - As per the traffic monitoring carried out on Junction Point of NH-316 & SH-59 the traffic density on the junction will be 69 vehicles per hour equivalent to 72.3 PCU per hour. The Level of service is V/C = 0.06; LOS- A (Excellent). Existing road is found adequate for the present traffic scenario including the additional traffic due to the proposed project. From the study it can be observed that the level of service on the road will remain unchanged due to the proposed the construction project.
18. **Project cost:** Total estimated cost of the proposed project is Rs.112.46 Cr. the capital cost for EMP is Rs.45 Lakh and the recurring cost for EMP is Rs.12 Lakh per annum.

Proposed Budgets for Environmental Protection Measures (Capital Cost)

Sl. No.	Particulars	Amount (Rs. in Lakhs)
1	Installation of STP within the project site	20
2	Construction of Rain Water Harvesting structure and recharge pits	8
3	Plantation along the project boundary and transplantation of existing trees in the green belt area	5
4	Construction of Surface Water Drains	4.5
5	Construction of stack for DG sets	3.80
6	Solid waste Management	3.8
Total		45.1

Proposed Budgets for Environmental Protection Measures (Recurring Cost)

Sl. No.	Activities	Allocated Budget (in Rs.)/ Annum
1.	Maintenance of STP	4,00,000/-
2.	Plantation and maintenance of the green belt and avenue plantation	3,00,000/-
3.	Regular maintenance of DG set and monitoring of DG stack	3,00,000/-
4.	Environmental Monitoring	2,00,000/-
Total		12,00,000/-

19. **Environment Consultant:** The Environment consultant M/s. Kalyani Laboratories Pvt. Ltd., Bhubaneswar along with the proponent made a presentation on the proposal before the Committee on 20.11.2023.
20. The SEAC in its meeting held on dated 20-11-2023 recommended the following:
- A. **The proponent may be asked to submit the following for further processing of EC application:**
- i) Clarification from District Collector or WATCO indicating that the project location is not coming under sweet water zone.

- ii) The water balance needs to be revised from an expert to justify the amount of water to be re-utilized in the chiller.
- iii) The bottom RL of Rainwater Harvest recharge pits, bottom RL of STP and Ground water table RL during the summer and rainy season. Ensure that the difference between both RLs should be atleast 1m gap to prevent seepage.
- iv) Traffic study report vetted by institute of repute.
- v) Mitigation plan for management of sand deposition in drains due to wind action.
- vi) Since, the exit gate is common for both residential and commercial purpose, it needs to be widened to 7.5m.
- vii) NOC from CGWA and permission from the WR Department. Govt.of Odisha for usage of ground water for commercial purposes.
- viii) Location of the project superimposed in CRZ map. Clarification from the CRZ authority that the project is not coming under the CRZ area.
- ix) Structural Stability Certificate from a reputed institute.
- x) Copy of approval of the project by PuriKonark Development Authority (PKDA).
- xi) Permission from NH authorities need to be obtained for utilization of their drain for discharge of excess rainwater.

B. The proposed site shall be visited by Sub-Committee of SEAC to verify the followings

- i) Environmental settings of the project site.
- ii) Verify if the site is a flood prone area.
- iii) Construction activity if any started at the site.
- iv) Road connectivity to the project site.
- v) Drainage network at the site.
- vi) Discharge point for discharge of treated water and distance of the discharge point from the project site.
- vii) Any other issues including local issues.

21. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Clarification from District Collector or WATCO indicating that the project location is not coming under sweet water zone.	We have already approached District Collector, Puri seeking clarification that the project location is not coming sweet water zone. Copy of the same is enclosed as Annexure -1 .	Application has been submitted.
2.	The water balance needs to be revised from an expert to justify the amount of water to be re-utilized in the chiller.	Water Balance Diagram has been vetted by an expert and the same is enclosed as Annexure-2 .	Revised water Balance submitted by PP suggest ZLD Revised in Non Monsoon period. There is no clarity regarding the quantity of excess treated water discharge to nearest drain. Also there is no water balance given for Monsoon period.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
3.	The bottom RL of Rainwater Harvest recharge pits, bottom RL of STP and Ground water table RL during the summer and rainy season. Ensure that the difference between both RLs should be at least 1m gap to prevent seepage.	We do undertake to ensure that the difference between the RL of the STP will be at least 1 meter above the ground water table RL during summer and rainy season.	-
4.	Traffic study report vetted by institute of repute.	The traffic study report has been prepared by School of Mechanical Engineering, KIIT University, Bhubaneswar and the same is enclosed as Annexure-3 .	LOS comes to be A – Excellent and there will be no change in LOS after inclusion of project.
5.	Mitigation plan for management of sand deposition in drains due to wind action.	The drains will be covered and it will be cleaned periodically.	-
6.	Since, the exit gate is common for both residential and commercial purpose, it needs to be widened to 7.5m.	The exit gate is 7.79 meter width as mentioned in the drawing attached as Annexure-4 .	-
7.	NOC from CGWA and permission from the WR Department. Govt. of Odisha for usage of ground water for commercial purposes.	NOC from CGWA is enclosed as Annexure -5 and letter from office of the Executive Engineer, P.H. Division, Puri is attached as Annexure-6 .	NOC from CGWA is attached. Letter from Executive Engineer, P.H. Division, Puri mentioning they will provide PHED water after inclusion of this area in Puri Municipality zone.
8.	Location of the project superimposed in CRZ map. Clarification from the CRZ authority that the project is not coming under the CRZ area.	We have already approached to the Director, Forest Environment and Member Secretary, Odisha for Coastal Zone Management Authority and is attached as Annexure-7 .	Application by PP has been submitted for NOC from the CRZ authority.
9.	Structural Stability Certificate from a reputed institute.	Structural Stability Certificate from a reputed institute is attached as Annexure – 8 .	Copy submitted
10.	Copy of approval of the project by Puri Konark Development Authority (PKDA).	Copy of approval of the project by Puri Konark Development Authority (PKDA) is attached as Annexure-9 .	Copy submitted
11.	Permission from NH authorities need to be obtained for utilization of their drain for discharge of excess rainwater.	The drainage drawing as approved by NHAI is enclosed as Annexure-10 . Moreover we also approached NHAI to obtaining the permission for utilization of their drainage for discharge of excess rain water vide our letter dated 23.03.2024 and the same is enclosed as Annexure-11 .	<ul style="list-style-type: none"> Provisional NOC has been given by NHAI for road accessibility to the project site after payment of requisite fee to the central govt. account. Application by PP to discharge excess treated water to nearest drain has been submitted to Director NHAI,

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
			Bhubaneswar.

22. The proposed site was visited by the sub-committee of SEAC on **09.03.2024**. Following are the observations of the sub-committee:

- The PP explained the layout. The project is for both residential with commercial activities.
- It is side of the Puri bypass road. They have separate entry for residential and commercial with wider exit gate. No construction made.
- The PP is raising the ground level about a meter above the road. He was asked to submit the RL as basement parking is planned. Site does not appear to be flood prone.
- All statutory permission including the new proposed airport at Puri to be taken from appropriate authority.
- Permission from Highway authority for construction of drain and discharge of storm water and excess treated water to be taken from appropriate authority including internal drain approval.
- Parking (residential, commercial) and green belt to be furnished in percentage. Also, area for visitors parking in residential area to be submitted.
- All other points asked during presentation to be complied.

23. The SEAC in its meeting held on dated **16-05-2024** decided to take the decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Clarification from District Collector or WATCO indicating that the project location is not coming under sweet water zone. Only application has been submitted by PP.	We are submitting herewith the letter no. 73/OCZMA, dated 16.08.2017 issued by Odisha Coastal Zone Management Authority, Forest & Environment Department, Government of Odisha (Copy enclosed as Annexure-1). In point no4; it is clearly mentioned that, the Sweet Water Zone consist of Chakratirtha area (about 448 acres) and Balipanda area of Puri Town (207.52 acres). Our project (which is in Sipasurubili Mouza) is not coming under Sweet Water Zone. (Refer Annexure A)	Submitted letter from Odisha Coastal Zone Management Authority, Forest & Environment Department, Government of Odisha. No clarification from District Collector or WATCO.
2.	Revised water Balance submitted by PP suggest ZLD in Non-Monsoon period. There is no clarity regarding the quantity of excess treated water discharge to nearest drain. Also there is no water balance given for Monsoon	The Water Balance Diagram for Monsoon Period is enclosed as Annexure-B.	Submitted the Water Balance Diagram for Monsoon Period where it shows the project will attain Zero liquid Discharge.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	period.		
3.	Permission from the WR Department. Govt. of Odisha for usage of ground water for commercial purposes to be submitted.	We have already applied (Copy enclosed as Annexure - C) to WR Department, Govt. of Odisha for permission for usage of ground water for commercial purpose. (Refer Annexure-C)	Application submitted.
4.	The PP has submitted application to CRZ authority. NOC from the CRZ authority that the project is not coming under the CRZ area.	We are submitting herewith the letter no. 103/OCZMA, dated 20.04.2024 issued by Odisha Coastal Zone Management Authority, Forest, Environment and Climate Change Department, Government of Odisha (Copy enclosed as Annexure D). our project outside the Coastal Regulation Zone. (Refer Annexure D).	Submitted.
5.	The PP has submitted application for NHA for discharge of excess rain water to nearest land. Permission from NH authorities need to be obtained for utilization of their drain for discharge of excess rainwater.	We are submitting herewith the letter no. 13011/16/RO-ODI/621/2022, dated 25.02.2022 issued by National Highway Authority of India (Ministry of Road Transport & Highways, Govt. of India) along with Drawing (Refer Annexure-E)	Submitted
6.	Submit the RL as basement parking is planned.	The RL values are presented in Annexure-F .	Submitted
7.	Permission from Highway authority for construction of drain and discharge of storm water and excess treated water to be taken from appropriate authority including internal drain approval.	We are submitting herewith the letter no. 13011/16/RO-ODI/621/2022, dated 25.02.2022 issued by National Highway Authority of India (Ministry of Road Transport & Highways, Govt. of India) along with Drawing (Refer Annexure-G)	Submitted
8.	Parking (residential, commercial) to be furnished in percentage form. Also, area for visitors parking in residential area to be submitted.	The parking (Residential, commercial) is furnished in percentage form along with area for visitors parking in residential area in Annexure-H .	Submitted

Considering the information furnished and the presentation made by the consultant, **M/s Kalyani Laboratories Pvt. Ltd., Bhubaneswar** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – E** in addition to the following specific conditions.

- i) The PP has submitted letter no. 73/OCZMA, dated 16.08.2017 issued by Odisha Coastal Zone Management Authority, Forest & Environment Department, Government of Odisha (Copy enclosed as Annexure-1). In point no4; it is clearly mentioned that, the Sweet Water Zone consist of Chakratirtha area (about 448 acres) and Balipanda area of Puri Town (207.52 acres). Our project (which is in Sipasurubili Mouza) is not coming under Sweet Water Zone. The

proponent has applied to the District Collector to clarify that the project location is not coming under sweet water zone was asked by SEAC. But no clarification has been received. The proponent shall obtain permission from the District Collector or WATCO indicating that the project location is not coming under sweet water zone before commencement of the project work.

- ii) The Coastal Zone Management Authority, Odisha vide letter no. 103/OCZMA, dated 20.04.2024 intimated that the proposal does not require CRZ clearance/ recommendation from Odisha Coastal Zone Management Authority. However, the following conditions should be strictly followed as the site is near the CRZ Boundary area as stipulated in the letter.
 - a) It must be ensured that the untreated effluents and solid wastes should not be discharged into the sea and river water, beach area and CRZ area.
 - b) Ecologically sensitive areas around the project site shall not be used for any purpose.
 - c) Any activities, if proposed inside the CRZ area require prior permission from the Authority.
 - d) This NOC is only applicable to the above plot areas as mentioned in the permission letter.
- iii) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.
- iv) Greenbelt shall be developed in minimum 20% (excluding land scaping).
- v) **The project shall adopt Zero Liquid Discharge (ZLD) concept as proposed.**
- vi) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.
- vii) The proponent shall obtain permission from concerned Fire Safety Authority.
- viii) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- ix) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- x) **The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. with zero discharge to drain as there will be ZLD in the project as mentioned by Project Proponent. This shall be verified in future compliance report.**
- xi) Before starting the construction physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.
- xii) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

ITEM NO. 08

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR MAJHIGUDA DECORATIVE STONE QUARRY OF M/S SRI BHUBANESWARI GRANITES AND M/S KPK GRANITES IS SPREAD OVER AN AREA OF 24.538 HECTARES (HA) FALLS IN VILLAGE MAJHIGUDA NO. 57 UNDER KHAIRAPUT TEHSIL OF DISTRICT MALKANGIRI OF SRI K. SRINIVASA RAO - EC

1. This proposal is for Environmental Clearance of Majhiguda Decorative Stone Quarry of M/s Sri Bhubaneswari Granites and M/s KPK Granites is spread over an area of 24.538 Hectare (ha) falls in village Majhiguda No. 57 under Khairaput Tehsil of District Malkangiri of Sri K. Srinivasa Rao.
2. **Category:** As per the EIA notification 2006 and its subsequent amendments, proposed project falls in category B under schedule of Item 1(a)-Mining of minerals.
3. The Letter of Intent vide letter no. 192/SM & 196/SM, Bhubaneswar, for grant of mining lease for a period of 30 years in favour of M/s Bhubaneswari Granites & M/s KPK Granites respectively was issued on dated 07-01-2022.
4. Majhiguda Decorative Stone Quarry over an area of 10.522 hectare and 14.016Ha. in village Majhiguda No-57 under Khairaput Tahasil in Malkangiri district is a fresh mining lease granted and executed for PL on 15.11.2018 in favour of M/s Sri Bhubaneswari Granites & M/s KPK Granites respectively. Mining Lease was granted by Department of Steel & Mines, Govt. Of Odisha vide letter No. 192/SM/Bhubaneswar, dated 07.01.2024.
5. The mining plan of Majhiguda Decorative stone mine over 10.522Ha. (M/s Sri Bhubaneswari Granites) was approved by Director of Mines with letter no. MXXII-(b)10/2022 8006/DM, dated 17.09.2022 and 14.016Ha. (M/s KPK Granites) was approved by Director of Mines with letter no. MXXII-(b)9/2022 8010/DM, dated 17.09.2022.
6. Mining lease is in the DSR page no.-06, sl.no.- 8 and 9.It is a new mine and no cluster is present within 500m of proposed quarry.
7. **TOR details:** Terms of Reference (TOR), was issued by SEIAA, Odisha, vide proposal. No.- SIA/OR/MIN/403075/2022, dated 27.01.2023.
8. **Public consultation details:** The Public consultation was conducted successfully on 23.08.2023 at 11.00AM in Majhiguda village. Issued raised during public hearing are employment of local youth and villagers on priority, protection of agricultural land due to mining and surface run-off, repair of road connected to nearby tourist spot and contribution for temple renovation, Education & Sports, drinking water and ambulance facility, skill development for women. Annual expenses incurred for the action plan of public hearing is Rs 10 lakhs /annum.
9. The lease area is not included in DLC of Malkangiri district.
10. **Location and connectivity:** The lease is located near village Majhiguda No. 57, Tahasil Khairaput of Malkangiri district of Odisha and is depicted in Survey of India topo sheet no 65/7 on 1: 50,000 scale. The lease area has the following coordinates Sri Bhubaneswari Granites- Latitude: 18°28'28.5" to 18°28'36.5" North and Longitude: 82°15'00.9" to 82°15'23.32" East; KPK Granites- Latitude: 18°28'18.7" to 18°28'28.5" North to Longitude: 82°15'00.6" to 82°15'22.7" East. The Cluster mine area of the both the lessee is located at a distance of 3km from Khairaput and is well connected by an all weather road through the village Jhariagurha at

a distance of 600m away from the area. SH - 47 from Govindapali – Balimela – Chittrakonda passed through Khairput; whereas Govindapali (13km from Khairput) is on NH- 326, connecting Malkangiri & Jeypore. The dist. headquarter Malkangiri is 60km away and the nearest place of importance is Jeypore which lies at a distance of 65 km from the area. Nearest rail-head is also Jeypore on Koraput – Jagdalpur line of East Coast Railway.

11. **Total Reserves and proposed production:** As estimated, the total geological reserves is 2542800 m³ and mineable reserves: 1950482 m³.

12. **Mining method:** On account of exposed sheet type occurrence of Dolerite as decorative stone, mining is proposed to be essentially done by open cast semi-mechanized method in single shift. The major activities in this cluster of quarries are removal of waste materials, block cutting & dressing, loading & transportation of blocks and waste disposal. Mining operation will be in a single shift of 8 hours with having a 2 hours lunch break in the afternoon. Semi-mechanized method of mining will be adopted in single shift (8 hours) during the mining operation; which involving drilling, cutting & transportation only by deploying machines like compressor, jack hammer drill, wire saw cutter, hydraulic excavator and tippers. The maximum stone block dimension opted in the face ranges from 3m X 2m X 2m to as small as 0.5m X 0.5m X 0.5m blocks. The height & width of the bench in quarry shall be kept as 6m and 12m respectively. The individual slope of benches will be 70-80° whereas the overall slope of the proposed quarry would be kept at 45°. The ultimate depth in mining pit will be 298m AMSL. The Dolerite as decorative stone excavated from the quarry face will be sized & shaped using chisels & hammer as per need on the yard/quarry floor & the rough dressed blocks will be marketed. Manual labour with Pitcher/sledge hammers & chisels of different sizes will be used to have well shaped blocks free from protrusions and irregularities. Hydraulic excavators will be deployed to segregate useful blocks and waste materials. There will be no other processing of the rocks within the lease area. In Majhiguda Decorative Stone Quarry over 10.522 ha., One quarry has been proposed to be developed both laterally and vertically in the central west part of the ML area; whereas in Majhiguda Decorative Stone Quarry over 14.016 ha., five quarries has been proposed to be developed both laterally and vertically in the central west as well as eastern part of the ML area leaving the highest peak along the southern safety zone. Mining operation within the M.L area of 10.522 ha & 14.016 ha will start after the execution & registration of mining lease deed to produce decorative stone. However, year wise development & production of decorative stone during ensuing five years are given below;

13. Excavation Plan of Decorative Stone

Lease	Year of Mining	Volume of Excavation	Marketable Decorative Stone (M3)	Volume of Waste (M3)
M/s Bhubaneswari Granites	1st year	77952	15590	62362
	2nd year	82428	16486	65942
	3rd year	88880	17776	71104
	4th year	93538	18708	74830
	5th year	96540	19308	77232
	Total	439338	87868	351470
M/s KPK Granites	1st year	78810	15760	63040
	2nd year	84850	16970	67880

	3rd year	88745	17749	70996
	4th year	97385	19477	77908
	5th year	104350	20870	83480
	Total	454140	90826	363314

14. The solid waste to be generated is Dolerite floats admixed with soil on the top, off standard blocks etc shall be dumped over an earmarked area temporarily. Usually, the wastes are in the form of big boulders and chances of generating fine dust particles are very less. However, water sprinkling shall be carried out over the area to keep moistened the exposed surfaces to rule out any chances of fugitive dust generation. During the plan period, 714784 Cub M of waste shall be generated. It is planned to utilize 40% of the generated waste for maintenance of haul road and approaching road to the general public transport road and balance 60% of the waste shall be dumped with an overall slope of 800. Backfilling of the quarried area shall be taken up and the waste generated from the mining operation shall be used for backfilling the voids. Priority shall be given to the locals who will be breaking the bigger size blocks and used for various construction purpose after due permission from the Govt. Authorities. The measures will be undertaken to stabilize the dump such as terracing at dead end and as the dump constitutes of rocky mass, no plantation is envisaged on the dump slope, during the plan period, retaining wall and garland drain will be constructed, settling tanks shall be constructed to arrest the wash off water. Alternatively, the waste materials can be used for road making purposes for which there is high demand in near vicinity. After getting permission from the statutory authority, the balance waste material i.e. estimated 40% of the waste can be utilized in-house and road maintenance purpose and the balance 60% of the waste could be sold to outside party for road construction purpose. In case, the permission shall be granted there shall be no requirement of any space for dumping of waste. The entire waste shall be sold to the outside party. However, for the initial five years, the dump plan has been made.
15. **Water requirement:** The daily water requirement of the project is estimated to be 35 KLD on average and 45 KLD during peak summer and it will be drawn from ground water source with due permission.
16. **Power requirement:** The supply of electrical energy for the mining complex shall be received from 225KVA DG set. The mine shall be under operation on single shift basis. Power requirement to be met from the DG set shall be drill, wire saw cutter and general lighting purpose only. A 225 KVA DG set shall be sufficient to meet the power requirement of all these. The DG set shall be mounted on trolley so that it can be moved from one place to another for the purpose.
17. **Baseline study details:** Baseline study was conducted during summer season of 2022 i.e. from March 1st 2022 till May 31st 2022.
- Ambient Air Quality was monitored at eight sampling stations, which were selected taking into account the predominant wind direction, population zone, sensitive receptors like reserved forests etc, and the monitoring were conducted for a period of three months with the frequency of monitoring for 2 days per week at each sampling station. The monitored results show PM10 levels were in the range of 28 $\mu\text{g}/\text{m}^3$ to 54 $\mu\text{g}/\text{m}^3$, PM2.5 levels were in the range of 9 $\mu\text{g}/\text{m}^3$ to 24 $\mu\text{g}/\text{m}^3$, SO2 levels were in the range of 3 $\mu\text{g}/\text{m}^3$ to 7 $\mu\text{g}/\text{m}^3$, NOx levels were in the range of 7

$\mu\text{g}/\text{m}^3$ to $14 \mu\text{g}/\text{m}^3$ & CO remained below detection level which are well within the prescribed limit of Central Pollution Control Board.

- Water quality parameters of Five Surface and Five Ground water resources within 10km radius of the study area was studied to assess the water environment and evaluate anticipated impact of the project. The water samples were collected and analyzed for physical, chemical and microbiological characteristics as per CPCB guidelines and approved methods in the NABL and MoEF& CC accredited laboratory. The result of all the surface & ground water samples collected shows that the water quality are within the permissible norms stipulated by CPCB.
- Noise level in the study area was monitored at eight sites. The measurements were carried out continuously for the 24-hour period. Noise levels vary from 30.6 to 53.8 dB(A) during day time and BDL to 35.9 dB(A) during night time. It is, therefore, concluded that the noise levels within the habitation/ residential area are well within the specified standards.
- Soil samples were collected from five locations including one from project site; from 30 cm depth with a stainless-steel scoop. It is found that the soil is slightly acidic to neutral in nature. The bulk density ranges between 1.06 to $1.32 \text{ g}/\text{cm}^3$. The soil texture is mostly loamy. The soil is fertile for agriculture purpose.

18. **Greenbelt development:** The greenbelt development will be covered 10% of the project area i.e. about 2.508 Hectares. Around 6,270 numbers of trees of the local species which are resistant to pollutants will be planted. The width of the belt around the proposed mining operations shall be of 7.5m. Plantation will be carried out in open and blank areas in surrounding of mine in consultation with local administration.

Year	Area to be planted(m2)	No. of Saplings	Type of species to be Planted	Location
1st Year	11,080.00	2270	Amla, Neem,	Along the ML Boundary
2nd Year	7,000.00	2000	Mango, Babul,	
3rd Year	7,000.00	2000	Kasi, Jackfruit, Teak and	
Total	25,080.00	6270	Bamboo	

19. **Manpower requirement:** In Majhiguda projects of Sri Bhubaneswari Granites 151 No. of person & in the project of KPK Granites 164 nos. of person will be directly engaged.

20. **Project cost:** Estimated Capital cost for the Majhiguda Decorative stone cluster Rs 20 crores; each decorative stone quarry in this cluster cost Rs 10 crores. The capital cost of EMP is calculated to be Rs 48 lakhs & recurring cost is Rs 22 lakhs. Based on demands in Public Hearing & assessment of local situation, a sum of Rs 15 lakhs will be spend under CSR activities in first two years and Rs 10 lakhs shall be spend every year under developmental activities.

Particulars	Details of Capital Investment Cost		Details of Annual Recurring Cost	
	Existing	Proposed	Existing	Proposed

Air Pollution Control	--	Rs 15 lakhs	--	Rs 5 lakhs
Water Pollution Control	--	Rs 9 lakhs	--	Rs 2 lakhs
Noise Pollution Control	--	Rs 1 lakh	--	Rs 2 lakhs
Environment Monitoring and Management	--	Rs 3 lakhs	--	Rs 5 lakhs
Occupational Health	--	Rs 10 lakh	--	Rs 7 lakhs
Green Belt Development and Maintenance	--	Rs 10 lakhs	--	Rs 1 lakhs
Total	--	Rs 48 lakhs	--	Rs 22 lakhs

21. **Environment Consultant:** The Environment consultant M/s Centre for Envotech and Management Consultancy Pvt. Ltd. Bhubaneswar along with the proponent made a presentation on the proposal before the Committee.

22. The SEAC in its meeting held on dated 01-02-2024 recommended the following information to be submitted by the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Before commencement of mining, the project proponent shall submit details regarding trees enumeration, cutting and transplantation of trees in safety zone in consultation with concerned DFO.	The tree enumeration report on girth class and species wise in the lease area has been prepared by the Range Officer, Mathili and submitted to DFO, Malkangiri for approval. We are herewith attaching an undertaking as Annexure- I that we will obtain the required approval from DFO and carry out cutting and transplantation of trees in safety zone in consultation with concern DFO.	Undertaking by PP has been submitted as reply to the query.
2.	Project proponent shall keep the excavated soil, restore and use the same after extracting the mineral.	Agreed; the generated soil will be stacked separately to use in the future for plantation. As per the approved mining plans, generated soil from lease area of M/s Sri Bhubaneswari Granites & M/s KPK Granites will be stacked over an area of 0.17 ha & 0.121 ha respectively. Very little top soil is reported to be there in the lease area; entire part of the granted PL area is covered with soil mixed with dolerite boulders.	-
3.	Submit RL of ground level and RL of post mining.	The ground level RL at post mining stage in stone quarry of M/s Sri Bhubaneswari Granites and M/s KPK Granites are 298m RL and 300m RL respectively.	-
4.	Measures to control the stability of slopes	The measures to control the stability of slopes are discussed in detail in Annexure – II .	-
5.	Detail waste water treatment facilities during cutting/washing of granite slabs and silt management. Layout of	In order to check the ingress of silt from cutting & washing, 2 settling pits will be constructed at the foot hills, which will be used alternately. Details of which is discussed in Annexure -III . To prevent surface water runoff from the dump	submitted

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	the garland drains and settling ponds of adequate capacity for treatment of surface run-off.	area to outside, proper garland drains & settling ponds will be made; details is given in Annexure- IV.	
6.	Measures to be followed for control of dust and noise, and solid waste management during the mining activities.	With the start of mining activity, all measures as suggested in the EIA /EMP report will be followed to control dust, noise and management of solid waste. Those measures are depicted in Annexure – V.	submitted
7.	Details of connecting road with layout along with the supporting documents.	The details of connecting road to transport decorative stone from the Majhiguda cluster of decorative stone queries is discussed in Annexure – VI with layout.	submitted
8.	PP shall obtain the permission from Gram Panchayat for usage of water from nearby villages.	We are herewith attaching an undertaking as Annexure- VII that we will obtain the required permission from Gram Panchayat for usage of water from nearby pond /well.	Undertaking that PP shall obtain the permission from Gram Panchayat for usage of water from nearby villages

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Centre for Envotech and Management Consultancy Pvt. Ltd. Bhubaneswar**, on behalf of the proponent, the SEAC approved the EIA/EMP report in cluster approach and recommended the following:

- a) The SEIAA, Odisha may consider to grant Environmental Clearance to individual lease for **Majhiguda Decorative stone mines under cluster approach** without referring to SEAC with specific conditions as per **Annexure – F** after receipt of individual applications from the lessee in cluster along with following documents.
 - i) Filled in form-I of individual lease
 - ii) Prefeasibility report of individual lease
 - iii) EMP of individual lease.
 - iv) Approved Mining Plan of individual lease.
 - v) DLC status of the lease area from concerned DFO.
 - vi) Before commencement of mining, the project proponent shall submit details regarding trees enumeration, cutting and transplantation of trees in safety zone in consultation with concerned DFO.
 - vii) **PP shall obtain the permission from Gram Panchayat for usage of water from nearby villages.**
 - viii) Haulage road shall be developed and maintained perennially and perpetually by the proponent in consultation with the concerned authority of the Govt.

- ix) Specific condition to be stipulated in EC of individual lease that "the project proponent shall maintain periodic health check-up records of their employees and ensure use of face mask by workers in crushing and handling sections of the decorative stone quarry for ensuring that working personnel are not affected by silicosis".
- x) The project proponent shall undertake re-grassing of the area or any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for fodder, flora, fauna etc. after ceasing mining operation that is at the time of mine closure. Accordingly, specific condition to be stipulated in EC of individual lease.

ITEM NO - 09

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR KALYANPUR - A AND B SAND BED MINES CLUSTER ON RIVER KUAKHAI OVER AN AREA OF 34.475 HA IN VILLAGE KALYANPUR, UNDER BHUBANESWAR TAHASIL OF KHORDHA DISTRICT OF SMT. MINAKSHI PRADHAN - EC

1. This proposal is for Environmental Clearance of Kalyanpur - A and B Sand Bed Mines cluster on river Kuakhai over an area of 34.475 Ha. in village Kalyanpur, under Bhubaneswar Tahasil of Khordha District of Smt. Minakshi Pradhan.
2. **Category:** As per EIA Notification, 2006, and subsequent amendments, the project falls under category B1 of Schedule 1(a) - Mining of minerals as the lease area is more than 5.0 Ha.
3. **TOR Details:** Terms of Reference (TOR) issued by State Environment Impact Assessment Authority (SEIAA), Odisha vide letter no. 1486/SEIAA dated 07.06.2021.
4. **Public hearing details:** The Public Hearing meeting was held on 15.12.2021 at Block Conference Hall, Bhubaneswar situated under Bhubaneswar Tahasil in Khurda District, Odisha at 10.30 am. Major issues raised during public hearing are employment and skill development, making of pond as community bathing place, education, pollution control measures. A total expense to be incurred according to action plan of public hearing is 16 lakhs.
5. Tahasildar, Bhubaneswar has been granted the Quarry lease Kalyanpur A to Smt. Minakshi Pradhan (Successful Bidder) vide letter no.5210 on dated 06.08.2020 and the Quarry lease Kalyanpur B granted to Sri Sarat Behera, (Successful Bidder) vide letter no.9015 on dated 26.11.2020 for mining of river sand for five years.
6. **Mining plan:** The modification of mining plan has been approved by Authorized Officer & Deputy Director Geology, Bhubaneswar vide memo no. 4833/DG on dated 06.07.2020 for Kalyanpur A and vide memo no. 4835 on dated 06.07.2020 for Kalyanapur B.
7. **Location and connectivity:** The Lease Cluster is located in Khata no. 221 Plot no. 1058,947,948,949,950,951,952,953,954,955,956,957,958 for Kalyanpur A and Plot no. 1061 for Kalyanpur B, and falls within survey of India toposheet no. (F45T15). The geo coordinates of Kalyanpur A is - latitude of 20°22'08.04"N to 20°22'34.30"N and longitudes of 85°52'03.02"E to 85°52'15.76"E and Kalyanpur B is - latitude of 20°22'08.04"N to 20°22'34.30"N and longitudes of 85°52'03.02"E to 85°52'15.76"E. Nearest Railway station is Baranga Railway Station at 04 Km from the project site. The nearest roads are Nandankanan road at 4 Km and Baranga road at 5km. The site is well connected to NH-203 & SH-60 at 8 Km & 3.5 Km. Nearest airport is

Bhubaneswar airport at a distance of 15Km from the mining Lease Cluster. Nearest river embankment at 100m, road bridge at 4.6km. Other than Kuakhai river, nearest water bodies are Kathajodi River at 3.5km and Mahanadi at 5km.

8. The study area within 10 Km of the project site is devoid of any Biosphere reserves, wild life corridors, tiger reserves etc. Chandaka Wildlife Sanctuary is located at a distance of 10Km from the project site. Nandankanan Zoo (National Park) is located at a distance of 6Km from the project site. The area is also devoid of any kind of vulnerable, endangered and critically endangered flora and fauna
9. **Topography and drainage:** The Kalyanpur Sand bed cluster represents a gently sloping to almost flat terrain with highest altitude of 22.00 mRL. The general slope is towards east. The drainage of the district is mainly controlled by rivers like Mahanadi, Kuakhai, Kushabhadra, Daya, Ran, Kalijiri, Sulia, Kharia & the Kusumi. Being a coastal district, the river basins are much wider and the sand sources are very much suitable for construction purposes. The lease cluster is on Kuakhai River. In buffer zone several water bodies are present. Serua River is present at a distance of 4km from the lease area at NE direction. Puri main canal is located at a distance of 600m from the project site. Jhumuka Nala is located at a distance of 7 Km from lease cluster.
10. **Cluster Certificate** - As per the certificate from Tahsildar, Kalyanpur Cluster consists of only two nos. of individual mines and no other mines located within 500m radius of this project.
11. **Reserves:** The geological reserve of the cluster is 999308 cum (Kalyanpur A - 196820 cum + Kalyanpur B - 802488 cum). The mineable reserve of the cluster is 521523 cum (Kalyanpur A - 93685 cu.m +Kalyanpur B - 427838 cum). As per the approved mining plan production capacity is **18700cum/year** and total production is **93500cum**.
12. **Benching Pattern:** Benching pattern is not feasible in case of sand, as the angle of repose of sand is 35°, based on this the Ultimate pit slope Limit has been taken as 35°. The maximum depth of mining will be of 2m or up to water table whichever is less.
13. **Replenishment Study Report** – The study was conducted in Pre and Post-Monsoon season (Survey was done in Month of June and November 2021) only the reserve has been assessed. The methodology of calculation as per approved mining plan was in surface area method but attempt has been taken to calculate Geological resources and mineable reserve in cross sectional area method. It was observed that for Kalyanpur- A ML, there is an average increase of river bed RL by 0.31 m due to sediment deposition during the monsoon season. So replenished quantity of sand available in each year within the sand bed = $72000\text{m}^2 \times 0.31\text{m} = 22,320\text{m}^3$. The post monsoon mineable reserve is 78,695 m³ and the extractable amount is 47,217m³ (60% of the mineable reserve). The replenishment study report (Pre and post monsoon surveys done during June and November 2021) for Kalyanpur-B mine has stated no replenishment of sand owing to absence of flooding on the riverbed sand (Ref. page 32/33).
14. **Water requirement:** For the Kalyanpur A, 2 KLD of water will be required (drinking & domestic purpose -1KLD, green belt development and dust suppression -1 KLD). For Kalyanpur B total water requirement will be 4 KLD (drinking & domestic purpose - 1.5 KLD and dust suppression and plantation purpose - 2.5 KLD). Total water requirement for cluster will be 6KLD.

15. **Fuel Requirement:** Tipper & Dumper will be used for transportation. The approximate quantity of the fuel/Diesel used per day is 100Lit/day.

16. **Employment generation:** Due to the proposed sand mining, there will be generation of employment for 107 persons in Kalyanpur mines. Out of which 21 personnel will be engaged with Kalyanpur A and 86 persons will be engaged with Kalyanpur B cluster. From these 20 nos are skilled, 26 semiskilled, 53nos are unskilled.

17. Baseline study-

PERIOD	October to December 2020	Applicable Standards
AAQ PARAMETERS AT 7 LOCATIONS	PM2.5 – 18.8 to 34.4 µg/cu.m	60 µg/cu.m
	PM10 – 40.0 to 61.4 µg/cu.m	100 µg/cu.m
	SO2 – 5.2 to 11.1 µg/cu.m	80 µg/cu.m
	NOx – 10.2 to 21.3 µg/cu.m	80 µg/cu.m
Ground water Quality at 6 Location	pH – 6.8 to 7.3	6.5 to 8.5
	Total Hardness – 132 to 188 mg/l	600 mg/l
	Chloride - 15.3 to 38.3 mg/l	250 mg/l
	Fluorides – 0.2 to 0.85 mg/l	1.5 mg/l
	TDS – 202 to 410 mg/l	1000 mg/l
	Heavy metals (Cd <0.001, As <0.001, Hg<0.0005) mg/l	Heavy metals (Cd <0.003, As <0.01, Hg<0.001) mg/l
Surface water at 4 locations	pH – 7.5 to 8.2	
	Dissolved Oxygen – 6.8 to 7.3 mg/l	
	Biochemical Oxygen Demand – 1.2 to 2 mg/l	
	Chemical Oxygen demand – 6 to 10 mg/l	
Noise at 7 locations	Day (dBA Leq) 32.4 to 45.6	55
	Night (dBA Leq) - 25.6 to 35.6	45
Soil Quality at 4 locations	pH – 6.30 to 6.90, Potassium – 43 to 107.5 Kg/ Ha, Phosphorous – 16 to 51.7 Kg/ Ha, Nitrogen – 87.9 to 125.5 Kg/Ha, Electrical Conductivity- 102 to 435 ms/Cm	

18. **Project cost:** The total cost of the project is Rs. 20 lakhs and the updated capital cost and recurring cost (per annum) for the environmental facilities for the proposed mining project works out to be Rs. 6.5 lakhs which include 3.0 Lakhs for Kalyanpur A mines and 3.5 Lakhs for Kalyanpur B mines.

19. **Environment Consultant:** The Environment consultant M/s Kalyani Laboratories Pvt. Ltd., Bhubaneswar along with the proponent made a presentation on the proposal before the Committee on 17.02.2023.

20. The SEAC in its meeting held on dated 17.02.2023 recommended the following:

Proceedings of the SEAC meeting held on 25th July 2024

Environmental Scientist, SEAC

A) The proponent may be asked to submit the followings for further processing of EC application;

- i) 2.5 km inter-cluster certificate certified from Tahasildar.
- ii) Replenishment study report.
- iii) Topography map based on grid points.
- iv) Revised Annual Production Report.

B) The proposed site shall be visited by Sub-Committee of SEAC to verify the followings;

- i) Environmental settings of the lease area.
- ii) Mining activity, if any carried out in the lease area.
- iii) Sand deposit in lease area as KML file shows no sand deposit.
- iv) Road connectivity to the lease area.
- v) Distance of the road and railway bridge from the boundary of the lease area.
- vi) Distance of embankment from sand deposit.
- vii) Any other issues including local issues.

21. The proposed site was visited by Sub-Committee of SEAC on dated **03.06.2023** and following observations as mentioned below:

- a) PP, RI and Consultant were present along with other team members. The Mine is in Kuakhai River and there are no ongoing mining activities.
- b) The area shown by the RI. It was observed that there is enough sand available in Bed A but Pocket sand available in Bed B. Both A and B beds are at opposite sides of the active channel of river.
- c) Approach roads are available for both sand beds at their respective side. RI also confirmed that the approach roads are on Government land for both sand beds.
- d) The bed B with pocket sands is mostly filling grade with some amount of construction grade sand. The lease area is filled with bushes and sand patches.
- e) PP was advised to submit the Replenishment study report separately for both beds with a summary of mining quantity proposed based on replenishment study finding.
- a) No road/ railway bridge or high-tension line nearby was observed.
- f) PP was asked to submit required documents as asked during presentation.

22. The SEAC in its meeting held on dated **12-07-2023** recommended to consider the proposal after the proponent furnish the information / documents as pointed out by the Sub-Committee of SEAC in the site visit dated 03.06.2023 in addition to the information/ documents as sought vide SEAC letter no. 221(6)/ SEAC-(Misc)-28, dated: 03.04.2023.

23. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	2.5 km inter-cluster certificate certified from Tahasildar	Copy submitted	-
ii)	Replenishment study report	Copy submitted	RSP of Kalyanpur B sand Mine has been submitted.
iii)	Topography map based on grid points		-
iv)	Revised Annual Production Report		Revised Annual production has been calculated to 30000cum/annum for current period.

24. The SEAC in its meeting held on dated **16-05-2024** decided to take the decision on the proposal after receipt of the following from the proponent raised during site visit.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	PP was advised to submit the Replenishment study report separately for both beds with a summary of mining quantity proposed based on replenishment study finding. The PP has submitted Replenishment study report of Kalyanpur B sand Mine as asked during presentation.	Replenishment study reports of Kalyanpur A & B has been submitted.	RSP of Kalyanpur A & B sand Mines has been submitted separately.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Kalyani Laboratories Pvt. Ltd., Bhubaneswar**, on behalf of the proponent, the SEAC approved the EIA/EMP report in cluster approach and recommended the following:

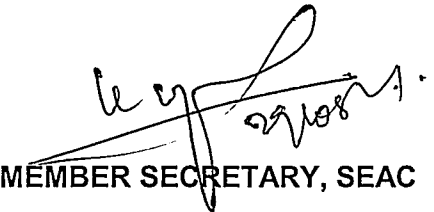
- a) The SEIAA, Odisha may consider to grant Environmental Clearance to individual lease for **Kalyanpur - A and B Sand Bed Mines** (under cluster approach) without referring to SEAC with stipulated conditions as per **Annexure – A** after receipt of individual applications from the lessee in cluster along with following documents.
 - i) Filled in form-I of individual lease
 - ii) Prefeasibility report of individual lease
 - iii) EMP of individual lease.
 - iv) Approved Mining Plan of individual lease.
 - v) Previous production details of individual lease duly certified by Tahasildar.
 - vi) Replenishment Study Report of individual lease.
- b) Following specific conditions may be stipulated in individual Environmental Clearance.
 - i) Amended EIA Notification dated 25th July, 2018, Guidelines for sustainable sand mining, 2016 and Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC,

Proceedings of the SEAC meeting held on 25th July 2024

J Nayak
Environmental Scientist, SEAC

Govt. of India shall be adhered to in execution of Mining as per **Annexure – B**.

- ii) In absence of proper Replenishment Study Report, the SEAC recommended sand for 1st year to a capacity of 60% of annual production capacity as approved in the mining plan.
- iii) Sand extraction shall be limited to quantity and depth as per replenishment study report. The approved mining plan needs to be revised as per the findings of the replenishment study report of Kalyanpur-A ML. As per study report submitted it is concluded that there is no replenishment due to no flood in Kalyanpur B sand mine. Regular replenishment study as per guidelines to be conducted and report to be submitted.
- iv) Provision of Bio-toilet shall be made at the site.
- v) Avenue plantation and plantation on both sides of the haulage road in consultation with/ on the advice of concerned Forest Department, Government of Odisha & W.R. Department Government of Odisha as well.
- vi) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.


MEMBER SECRETARY, SEAC

STANDARD ENVIRONMENTAL CLEARANCE CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR SAND MINING

Stipulated Conditions:

1. The project proponent should carry out River bed sand mining manually by engaging local laborers in force to check over exploitation of sand at the source.
2. Any change in the plan or quantity to be produced shall require prior approval of SEIAA.
3. There shall be a 'no working zone' to protect the embankment on both sides, road or rail bridge in the vicinity, if any, dam, weir, water intake structure of irrigation or drinking water project, or any cross drainage structure. 10 % of the width of river shall be left intact along the embankments on both sides as 'no mining zone'. Further, no mining shall be allowed within 200 m of any existing structures dam, weir, water intake structure of irrigation or drinking water project, or any cross drainage structure. In case of River Bridge, this no mining zone shall extend upto a minimum stretch of 200 meters from the bridge and it may extend upto 500 meters in sensitive locations. The lease area shall be accordingly curtailed to carve out the actual sand mining area within the leasehold. Exact map of the lease area, and the 'no mining zone' shall be drawn to scale, showing the DGPS coordinates of all corner points, and the location of the bridge, embankment, extraction route & other structures; and such map has to be submitted to SEIAA by the project proponent through the Tahasildar within three months of the date of issue of the EC. The quantum of sand allowed to be extracted will be worked out on the basis of the actual working area.
4. The lease area and the actual working area shall be demarcated on the ground by erecting durable masonry /concrete pillars by the project proponent.
5. The project proponent shall take prior statutory and regulatory clearance as required from the concerned authorities in respect of the project, before carrying out any operation.
6. Mining is not permissible within the water channel or stream flow area. No stream shall be diverted for the purpose of mining and no natural water course shall be obstructed. The mining or any ancillary activity shall not in any way disturb the flow pattern of the river water during the non monsoon period. There shall be no sand mining in the river during the rainy season or when there is flow of water in the river.
7. Sand mining operations shall not affect the existing sources for irrigation / drinking water / industrial purpose.
8. The natural sand dunes, if any, near or surrounding the lease area shall not be disturbed.
9. No transportation of the minerals shall ordinarily be allowed on any road passing through villages/habitations/forest land without prior explicit permission. Transportation

of minerals through existing rural roads can be allowed only by the concerned Govt. Department/BDO and only after required strengthening, such that the carrying capacity of road is increased to handle the sand truck traffic. The project proponent shall bear the cost towards the widening and strengthening of existing public roads in case the same is proposed to be used for the project. No movement on any road is allowed on existing village road network without appropriately increasing the carrying capacity of such roads. Project proponent shall ensure that the road may not be damaged due to transportation of the mineral and transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and traffic density. Plying of sand extraction trucks may be allowed on roads / path ways passing close to schools, temples, hospitals and such other public places only with prior written permission of competent authority.

10. Vehicles hired for transportation of sand from the site should be in good condition and should have pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.
11. The vehicles shall not be overloaded and shall be covered with Tarpaulin. The Tahasildar may collect an appropriate road maintenance levy from the lessee as part of the lease conditions on the basis of quantum of sand transported, and utilize the proceeds of the levy for proper maintenance of the extraction paths and roads to prevent their degradation on account of plying of sand trucks.
12. The project proponent shall take all precautionary measures against causing damage to flora and fauna of the locality. The PP shall plant and nurse to full establishment a minimum of 50 number of saplings of native tree species along the approach roads, river banks and in community areas in consultation with the Gram Panchayat.
13. Water spray should be made on the road/extraction paths to control dust emission during transportation of sand.
14. The Project Proponent shall undertake phased restoration, reclamation and rehabilitation of land affected by mining and completes this work before abandonment of mine.
15. Environmental Management Plan (EMP) shall be implemented by PP to ensure compliance with the environmental conditions specified above. The year wise funds earmarked for environmental protection measures shall be kept in separate account and shall be spent according to the plan proposed. Year wise progress of implementation of EMP shall be reported to the SEIAA, Odisha and OSPCB along with the compliance report.
16. The proponent shall take necessary measures to ensure that there is no adverse impact of the mining operations on the human habitation if any, existing nearby.
17. It shall be mandatory for the project management to submit quarterly compliance reports on the status of implementation of the above stipulated environmental safeguards to the SEIAA, Odisha / SPCB, Odisha/ Regional Office of the MoEF&CC, Bhubaneswar, in hard and soft copies on 1st day of January, April, July, October of each calendar year, failing which EC is liable to be revoked.

J Nayak
Environmental Scientist, SEAC

18. River Bank stabilization shall be made through stone patching. Plantation of adequate number native species on river banks and both sides of haulage roads shall be made.
19. During transportation of sand, all traffic safety measures shall be taken to avoid any kind of accidents.
20. Bio - toilet provision shall be made.
21. Stone patching on river bank with plantation in-between and the ramp construction shall be done in consultation with and advice of concerned W.R.Deptt, Government of Odisha.
22. Necessary sprinkling on Haulage Road and Avenue plantation shall be done.
23. At the end of mine closure, the proponent shall immediately remove all the sheds put up in the quarry and all the equipment in the area before closure of the quarry.
24. The conditions stipulated in the environmental clearance will be closely monitored on the ground by the lease granting authority, i.e. the Tahasildar, who shall ensure compliance of the stipulated conditions and take corrective measures promptly in case of any non- compliance and also ensure that the project proponent submits quarterly compliance reports.
25. The concerned Regional Office of the MoEF&CC/ SPCB, Odisha shall periodically monitor compliance of the stipulated conditions as applicable for this project. The project authorities should extend full cooperation to the MoEF&CC officer(s)/SPCB officer(s) by furnishing the requisite data / information / monitoring reports.
26. A copy of the clearance letter shall be sent by the proponent to concerned Gram Panchayat /Panchayat Samiti /Zilla Parisad /Municipal Corporation / Urban Local Body as the case may be.
27. Project proponent shall obtain Consent to Operate from the OSPCB and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the State Pollution Control Board.
28. The SEIAA, Odisha may revoke or suspend this EC, if implementation of any of the above conditions is not satisfactory. The SEIAA, Odisha reserves the right to alter /modify the above conditions or stipulate any further condition in the interest of environment protection.
29. The Project Proponent (lease holder) shall inform the SEIAA of any change in ownership of the mining lease. In case, there is any change in ownership or mining lease is transferred, then mining operation can be carried out only after transfer of EC as per provisions of the para 11 of EIA Notification, 2006, as amended from time to time.
30. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this environment clearance besides attracting penal provisions in the Environment (Protection) Act, 1986.

31. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court and any other Court of Law relating to the subject matter.
32. This Environmental Clearance (EC) is subject to orders/judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
33. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.

Annexure - B

ESSENTIAL PHYSICAL CRITERIA AS PER ENFORCEMENT AND MONITORING GUIDELINES FOR SAND MINING, JANUARY 2020 OF MOEF&CC, GOVT. OF INDIA

Sl. No.	Essential Criteria	Reference
1.	"No Mining Zone": 1/4th the part of the river width (excluding 3/4th the central part of the river width) on both sides of the river towards the river bank	4.1.1 (Para - e) Page - 16
2.	a) Distance between two clusters : ≥ 2.5 km b) Area of mining lease area is a cluster: ≤ 10 ha.	4.1.1 (Para - k) Page - 19
3.	Concave River Bank : No extraction of sand	
4.	No mining if a) Upstream: Lease is 1 km from major Bridge and high ways or $5(x)$ of the Bridge / public civil structure / water intakes point subject to lease is located at a minimum 250 meter distance. Where $x =$ Span of the bridge. b) Downstream side: Lease is 1 km from the major bridge and Highways Or $10x$ of the bridge / public civil structure / water intake point Subject to lease is located at a minimum distance of 500 meter where $x =$ span of the bridge	4.3 (Para - h) Page - 23
5.	Mining depth : ≤ 3 meter (maximum 3 meter)	4.3 (Para - m) Page - 24
6.	Mining distance from river bank: $1/4^{\text{th}}$ of the river width, But subject to not less than 7.5 meter	4.31 (Para - m) Page - 24
7.	Area for removal of minerals : $\leq 60\%$ of mine lease area	4.3 (Para - s) Page - 25
8.	Minable sand per ha. Available for actual mining : $\leq 60,000$ MT/Annum	
9.	Regular replenishment study and replenishment rate	

TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT FOR DEVELOPMENT OF COMMON BIOMEDICAL WASTE TREATMENT AND DISPOSAL FACILITY (TOR).

1. Executive summary of the project shall be prepared highlighting the objectives of the proposal, use of resources, justification, etc. In addition, it should provide EMP.
2. Justification for selecting the proposed capacity of the incineration and other facilities.
3. Establishment of the facility as per Bio-medical Waste Management Rules, 2016.
4. Land requirement for the facility including its break up for various purposes, its availability and optimization.
5. Details of proposed layout clearly demarcating various activities such as security,
6. Waste Storage Rooms, Waste Treatment Equipment Rooms/Areas, Treated Waste Storage Room, Pollution Control Devices like APCS and ETP, ash storage/disposal area, vehicle washing areas, and others such as admin area, worker's room, health centers, greenbelt, etc.
7. Details on collection and transportation of Bio Medical Waste from health care establishments. No. of vehicles and feature of vehicles, etc.
8. Details of waste storage facilities/rooms.
9. Details of the treatment equipment's capacity and make.
10. Details of the incineration system - a statement on the compliance to the CPCB guidelines for common bio medical waste incinerators in respect of waste feed cut-offs, operating parameters of combustion chambers, flue gas cleaning, ash handling, etc.
11. Details on fuel requirement for incineration.
12. Details on flue gas emissions discharge through stack and proposed pollution control technologies.
13. Details on residue/ash generation and management.
14. Details of waste heat utilization, if any.
15. Details of wastewater management.
16. Details of the proposed overall safety and health protection measures.
17. Details of source of water and power to the facility.
18. Details of the existing access road(s)/walkways to the designed operations in the site and its layout.
19. Location of the incineration facility and nearest habitats with distances from the facility to be demarcated on a toposheet (1: 50000 scale).
20. Land use map based on satellite imagery including location specific sensitivities such as national parks / wildlife sanctuary, villages, industries, etc.
21. Topography details.
22. Surface water quality of nearby water bodies.

23. Details of proposed groundwater monitoring wells, locations, frequency of monitoring, parameters, etc.
24. Action plan for the greenbelt development in accordance to CPCB published guidelines.
25. Details of pollution control technologies and online monitoring equipments.
26. Details of monitoring of pollutants at source -performance of the incinerator. including operating hours, fuel consumption, operating parameters (Combustion chamber - temperature, pressure, Stack temperature, total particulate matter, HCl, NO_x as per Bio-medical Waste Management Rules, 2016.
27. Stack and fugitive emissions may be monitored for SPM, HCL & NO₂ as per Bio-medical Waste Management Rules, 2016.
28. Specific programme to monitor safety and health protection of workers.
29. Details of Administrative and technical organizational structure.
30. EMP devised to mitigate the adverse impacts of the project should be provided along with item-wise cost of its implementation (Capital and recurring costs).
31. Details of the emergency preparedness plan and on-site & off-site disaster management plan and on-site & off-site disaster management plan.
32. Details of measures to be taken for control of air pollution including measures to control emission of Dioxin and Furan.
33. Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.
34. Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
35. The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter in the EIA report by the accredited consultants.
36. 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.
37. **The prescribed TOR would be valid for a period of four years for submission of the EIA/EMP report.**

ANNEXURE- D

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE OF M/S FEDDERS ELECTRIC AND ENGINEERING LIMITED FOR PROPOSED INSTALLATION OF 1.5MTPA IRON ORE BENEFICIATION PLANT OVER AN AREA 24.635 ACRES (9.969HA) AT VILLAGE- SANINDIPUR, KOIDA, DIST.- SUNDARGARH OF SRI DINESH SHARMA – EC

I. Statutory compliance:

- (i) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- (ii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- (iii) The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report, (incase of the presence of schedule-I species in the study area)
- (iv) The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board.
- (v) The project proponent shall obtain the necessary permission from the Central Ground Water Authority and other concerned authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- (vi) The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

II. Air quality monitoring and preservation

- (i) The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.
- (ii) The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- (iii) Appropriate Air Pollution Control (APC) system shall be provided for all the dust

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generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

- (iv) The project proponent use leak proof trucks/dumpers carrying ore and other raw materials and cover them with tarpaulin.
- (v) Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- (vi) Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.
- (vii) The project proponent shall carry out conditioning of the ore with water to mitigate fugitive dust emission, without affecting flow of ore in the ore processing and handling areas.
- (viii) Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of air pollutants such as haul road, loading and unloading point and transfer points. It shall be ensured that the Ambient Air Quality parameters conform to the National ambient air quality standards.
- (ix) The transportation of mineral shall be carried out through the covered trucks. Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in beneficiation operations and in transportation of ore to the beneficiation plant. The vehicles carrying the mineral shall not be overloaded.
- (x) Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
- (xi) Occupational health surveillance program of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed. Health records of the workers shall be maintained.
- (xii) Regular Ambient Air Quality Monitoring shall be carried out. The monitoring stations will be set up in consultation with the SPCB. At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of $PM_{2.5}$, PM_{10} , SO_2 and NO_x are anticipated in consultation with the State Pollution control Board. It will be ensured that at least one monitoring station is set up in up-wind & in down-wind direction along with those in other directions. The instruments used for ambient air quality monitoring shall be calibrated regularly.
- (xiii) Data on ambient air quality ($PM_{2.5}$, PM_{10} , SO_2 , NO_x) shall be regularly submitted to the Ministry including its Regional office located at Bhubaneswar and the State Pollution Control Board/Central Pollution Control Board once in six months.

III. Water quality monitoring and preservation

- (i) The project proponent shall monitor regularly ground water quality at least twice a year

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(pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.

- (ii) Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- (iii) Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
- (iv) The project proponent shall practice rainwater harvesting to maximum possible extent.
- (v) The effluent from the ore beneficiation plant shall be treated in the tailing thickener and the tailings slurry shall be transported through a closed pipeline to the tailing pond.
- (vi) The tailing pond shall be lined with appropriate impervious lining on all sides as well as the bottom to prevent any leachate going from the tailing pond into groundwater.
- (vii) The garland drain shall be constructed around the tailing pond before the starting operation on the project.
- (viii) The decanted water from the tailing pond shall be re-circulated and there should be zero discharge from the tailing pond.
- (ix) Appropriate technology shall be used for maximum recovery of ore in order to reduce slurry discharge and to increase the life of the tailing pond.
- (x) Garland drains with appropriate size, gradient and length shall be constructed to arrest silt and sediment flows from ore dumps and directly into the water bodies. The water so collected shall be utilized for watering the roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
- (xi) Effluents containing Cr+6 shall be treated to meet the prescribed standards before reuse. Effluent Treatment Plant should be provided for treatment of wastewater generated from the beneficiation plant.
- (xii) Run off from the mineral and reject dumps and other surface run off should be analyzed for Cr+6 and in case its concentration is found higher than the permissible limit the water should be treated before reuse.
- (xiii) Adhere to "Zero Liquid Discharge".
- (xiv) Regular monitoring of water quality for surface water sources as well as ground water sources shall be carried out. The groundwater shall be monitored downstream of beneficiation plant as well as tailing pond upto groundwater table and record of monitoring data should be maintained and submitted on six monthly basis to the Ministry of Environment and Forests, its Regional Office, Bhubaneswar, the Central Ground Water Authority, the Regional Director Central Ground Water Board and the State Pollution Control Board.
- (xv) Suitable rainwater harvesting measures on long term basis shall be planned and

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implemented in consultation with the Regional Director, Central Ground Water Board.

- (xvi) Appropriate mitigative measures shall be taken to prevent pollution of the nearby surface water source in consultation with the State Pollution control Board.

IV. Noise monitoring and prevention

- (i) Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha as a part of six-monthly compliance report.
- (ii) The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time

V. Energy Conservation measures

- (i) Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- (ii) Provide LED lights in their offices and residential areas.

VI. Waste management

- (i) The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016
- (ii) Kitchen waste shall be composted or converted to biogas for further use. (to be decided on case to case basis depending on type and size of plant)
- (iii) Separate impervious concrete pits for disposal of sludge shall be provided for the safe disposal of sludge generated from the beneficiation operation.

VII. Green Belt and EMP

- (i) Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
- (ii) The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
- (iii) Plantation shall be raised all around the beneficiation plant site and the tailing pond around the plant, tailing disposal area, roads etc. by planting the native species in consultation with the local DFO/ Agriculture Department.

VIII. Human Health Issues

- (i) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- (ii) The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per

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the norms of Factory Act.

- (iii) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile
 - a) STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (iv) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

IX. Corporate Environment Responsibility

- (i) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-1 A.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- (ii) The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha as a part of six-monthly report.
- (iii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- (iv) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha along with the Six Monthly Compliance Report.
- (v) Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out
- (vi) All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Mineral Beneficiation plants shall be implemented.

X. Miscellaneous

- (i) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by

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- prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- (ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
 - (iii) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
 - (iv) The construction and demolition wastes to be generated from the proposed project shall be disposed of in accordance with the provision under "Construction & Demolition Wastes Management Rules 2016".
 - (v) The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
 - (vi) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
 - (vii) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
 - (viii) The project proponent shall inform the Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
 - (ix) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
 - (x) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during their presentation to the State Level Expert Appraisal Committee.
 - (xi) No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Odisha.
 - (xii) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

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- (xiii) The SEIAA, Odisha may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- (xiv) The SEIAA, Odisha reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- (xv) The Regional Office, MoEF&CC, Govt. of India, Bhubaneswar shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- (xvi) The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- (xvii) Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S BIVAB DEVELOPERS PRIVATE LIMITED FOR CONSTRUCTION OF B1+B2+G+11 STORIED RESIDENTIAL AND B1+B2+G+8 STORIED COMMERCIAL BUILDING OVER AN BUILT-UP AREA 66662.28 SQ. MT. LOCATED AT: SIPASURUBILI, DIST - PURI OF SRI BINAY KRISHNA DAS - EC

PART A - SPECIFIC CONDITIONS:

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc. as per National Building Code including protection measures from lightening etc.
3. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
4. The project proponent shall ensure that the guidelines for building and construction projects issued vide this Ministry's OM NO.19-2/2013-IA.III dated 9th June, 2015, are followed to ensure sustainable environmental management.
5. The proponent shall obtain prior clearance from the Standing Committee of the National Board for Wild Life if the project will be located within any Eco-Sensitive Zone of Wild Life Sanctuary.

TOPOGRAPHY AND NATURAL DRAINAGE

6. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape and other Sustainable Urban Drainage Systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
7. The permission from competent authority will be obtained to discharge the excess storm water to drain if any. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially.
8. Permission for construction of drain alongside the adjacent NH under construction for allowing the proponent to discharge the treated waste water as well excess runoff water during monsoon from NH Authority shall be obtained. The construction of drains shall be synchronized with the completion of the construction of the Housing Project.

WATER REQUIREMENT, CONSERVATION, RAIN WATER HARVESTING, AND GROUND WATER RECHARGE

9. As proposed, fresh water requirement from ground water shall not exceed 50 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring

that there is no impact on other users.

11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of 12 nos. shall be provided.
17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.
18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

SOLID WASTE MANAGEMENT

19. The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
20. Disposal of muck during construction phase shall not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
21. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
22. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
23. A certificate from the competent authority handling municipal solid wastes, indicating the

existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste generated from project shall be obtained.

SEWAGE TREATMENT PLANT

24. Sewage shall be treated in STP of capacity 250 KLD. The treated effluent from STP shall be reused for flushing, landscaping, floor & car washing.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

32. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
33. Energy conservation measures like installation of CFLs / LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.

34. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 5% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher. Follow super ECBC requirement of ECBC 2017 and provide compliance report.
35. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.
36. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
37. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.

AIR QUALITY AND NOISE

38. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, morram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, morram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
39. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
40. **Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.**
41. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

42. For indoor air quality the ventilation provisions as per National Building Code of India shall be provided.
43. Ambient noise levels shall conform to residential standard both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 3200sqm (20% of total plot area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

45. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

TRANSPORT

46. A comprehensive mobility plan, as per Ministry of Urban Development best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation
47. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project.
48. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
49. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

50. A dedicated entry/exit and parking shall be provided for commercial activities.
51. Barricades shall be provided around project boundary.
52. Speed of the vehicles shall be restricted upto 15 kmph by erecting speed bumps at regular intervals at project site and proper signage shall be provided for guided vehicular movement and speed restrictions.
53. Parking shall be prohibited on the access road to the proposed project site.
54. Footpath shall be seamless with sufficient width.
55. No vehicles shall be allowed to stop and stand in front of the gate on main access.
56. A buffer of minimum 10 m shall be maintained between the entry/exit gate and the road to avoid traffic congestion.
57. The Traffic Management Plan prepared by the proponent shall be duly validated and certified by the State Concerned Competent Authority and shall have also their consent before implementation.

ENVIRONMENT MANAGEMENT PLAN

58. An Environmental Management Plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. A dedicated Environment Monitoring Cell with defined functions and responsibility shall be put in place to implement the EMP. The environmental cell shall ensure that the environment infrastructure like Sewage Treatment Plant, Landscaping, Rain Water Harvesting, Energy efficiency and conservation, water efficiency and conservation, solid waste management, renewable energy etc. are kept operational and meet the required standards. The environmental cell shall also keep the record of environment monitoring and those related to the environment infrastructure.

OTHERS

59. Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
60. A First Aid Room shall be provided in the project both during construction and operations of the project.
61. The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.
62. As per the MoEF&CC, Govt. of India Office Memorandum F.No.22-65/2017-IA.III dated 1st May 2018, the project proponent is required to prepare and implement Corporate Environment Responsibility (CER) Plan. As per para 6(II) of the said O.M. appropriate funds shall be earmarked for the activities such as infrastructure creation for drinking water supply, sanitation, health, education, skill development, roads, cross drains, electrification including solar power, solid waste management facilities, scientific support and awareness to local farmers to increase yield of crop and fodder, rain water harvesting, soil moisture conservation works, avenue plantation, plantation in community areas etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire

activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

PART B – GENERAL CONDITIONS

1. A copy of the Environmental Clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.
2. The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to the SEIAA, Odisha and MoEF&CC, Govt. of India and its concerned Regional Office.
3. Officials from the Regional Office of MoEF&CC, Bhubaneswar who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection.
4. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA, Odisha.
5. The SEIAA, Odisha reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
6. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
7. These stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and the EIA Notification, 2006.
8. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the SEIAA, Odisha. The advertisement shall be made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of MoEF&CC, Bhubaneswar.
9. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
10. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The

clearance letter shall also be put on the website of the company by the proponent.

11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
12. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC, Govt. of India by E-mail.

**CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR
DECORATIVE STONE MINES & STONE QUARRY**

A. Specific conditions

1. The Project Proponent shall obtain consent from the State Pollution Control Board, Odisha and effectively implement all the conditions stipulated therein.
2. Project Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and records maintained; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smokers, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. Recommendations of National Institute for Labour for ensuring good occupational environment for mine workers would also be adopted; All the old age people of the surrounding villages may be provided medical facilities.
3. Transport of minerals shall be done either by dedicated road or it should be ensured that the trucks/dumpers carrying the mineral should not be allowed to pass through the villages. The Project Proponent shall ensure that the road may not be damaged due to transportation of the mineral; and transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and density.
4. Project Proponent shall ensure the safeguard and wellbeing of villagers and school, regular health monitoring of all residents in the area and the compliance Report shall be submitted to the Regional office of the Ministry and SEIAA, Odisha.

B. Standard conditions

1. A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the SEIAA, Odisha 5 years in advance of final mine closure for approval.
2. No mining activities will be allowed in forest area, if any, for which the Forest Clearance is not available.
3. No change in mining technology and scope of working should be made without prior approval of the SEIAA, Odisha.
4. No change in the calendar plan including excavation, quantum of mineral and waste should be made.
5. The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water) for the project.
6. Mining shall be carried out as per the provisions outlined in the approved mining plan as well as by abiding to the guidelines of Directorate General Mines Safety (DGMS).
7. Protection of vegetation in the surrounding areas, and proper storage of solid waste, subgrade ore and their use have to be given priority during mining operation.
8. Digital processing of the entire lease area using remote sensing technique shall be

- carried out regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment, Forest and Climate Change its Regional Office and SEIAA, Odisha.
9. Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM10 and PM2.5 such as haul road, loading and unloading point and transfer points. Fugitive dust emissions from all the sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard. Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board.
 10. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations. The monitoring shall be carried out four times in a year pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board.
 11. Transportation of the minerals by road passing through the village shall not be allowed. A 'bypass' road should be constructed (say, leaving a gap of at least 200 meters) for the purpose of transportation of the minerals so that the impact of sound, dust and accidents could be mitigated. The project proponent shall bear the cost towards the widening and strengthening of existing public road network in case the same is proposed to be used for the Project. No road movement should be allowed on existing village road network without appropriately increasing the carrying capacity of such roads.
 12. The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.
 13. Sufficient number of Gullies to be provided for better management of water. Regular Monitoring of pH shall be included in the monitoring plan and report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
 14. There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.
 15. The Project Proponent has to take care of gullies formed on slopes. Dump mass should be consolidated with proper filling/leveling with the help of dozer/compactors.
 16. The reclamation at waste dump sites shall be ecologically sustainable. Scientific reclamation shall be followed. The local species may be encouraged and species are so chosen that the slope, bottom of the dumps and top of the dumps are able to sustain these species. The aspect of the dump is also a factor which regulates some climatic

parameters and allows only species adopted to that micro climate.

17. The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. The maximum height of the dumps shall not exceed 8m and width 20 m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
18. Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. The drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dumps to prevent run off of water and flow of sediments directly into the river and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.
19. Plantation shall be raised in a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department and as per CPCB Guidelines. The density of the trees should be around 2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.
20. The Project Proponent shall make necessary alternative arrangements, where required, in consultation with the State Government to provide alternate areas for livestock grazing, if any. In this context, Project Proponent should implement the directions of the Hon'ble Supreme Court with regard to acquiring grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded against felling and plantation of such trees should be promoted.
21. The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.
22. As per the Company Act, the CSR cost should be 2 % of average net profit of last three years. Hence CSR expenses should be as per the Company Act/Rule for the Socio

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Economic Development of the neighborhood Habitats which could be planned and executed by the Project Proponent more systematically based on the 'Need based door to door survey' by established Social Institutes/Workers. The report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.

23. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
24. Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.
25. Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
26. The project authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
27. The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest and Climate Change, its Regional Office, Central Pollution Control Board and State Pollution Control Board.
28. A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal.
29. State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.
30. The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment, Forest and Climate Change at www.environmentclearance.nic.in and a copy of the same should be forwarded to the Regional Office.
31. The SEIAA, Odisha may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
32. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
33. The above mentioned stipulated conditions shall be complied in a time-bound manner. Failure to comply with any of the conditions mentioned above may result in cancellation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.