

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE, ODISHA HELD ON 12TH JULY, 2023**

The SEAC met on 12th July, 2023 at 03:00 PM by Virtual mode (VC) through video conferencing in Google Meet under the Chairmanship of Sri Sashi Paul. The following members were present in the meeting.

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|------------------------------|---|-----------------------|
| 1. Sri Sashi 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. Dr. K.C.S Panigrahi | - | Member (through VC) |
| 10. Shri Jayant Kumar Das | - | Member (through VC) |
| 11. Dr. Ashok Kumar Sahu | - | 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 FOR ENVIRONMENTAL CLEARANCE FOR KRUSHNANDPUR PAIKA NADI SAND SAIRAT OVER AN AREA OF 12.65 ACRES OR 5.12 HECTARES UNDER TIRTOL TAHASIL OF JAGATSINGHPUR DISTRICT OF SRI DAMODAR MOHAPATRA - EC

1. This proposal is for Environmental Clearance of Krushnandpur Paika Nadi Sand Sairat over an area of 12.65 acres or 5.12 hectares under Tirtol Tahasil of Jagatsinghpur District of Sri Damodar Mohapatra.
2. **Category:** As per the EIA Notification 2006 and its subsequent amendment, proposed project falls in category B1 under Schedule of item 1(a)-Mining of Minerals.
3. The lease area of Paika Sand Bed over an area of 12.65 acres (5.12 ha.) is located in Village-Krushnandapur, Tahasil-Tirtol, in district Jagatsinghpur of Odisha. Sri Damodar Mohapatra is selected as successful bidder of the Sand Bed for a lease period of 5 (five) years from 2020-21 to 2024-25.
4. Letter of Intent has been issued by Tahasildar, Tirtol to Damodar Mohapatra vide letter no.472 dated 24.02.2021 for a period of five years.
5. The Mining plan has been approved for a period of five years i.e. 2020-21 to 2024-25 by The Deputy Director of Geology, Bhubaneswar. Vide letter no – 7958 DG, on dated 04.12.2020 in favour of Tahsildar, Tirtol. After approval the said lease has granted to Sri Damodar Mohapatra on 30.11.2020.

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6. The District Survey Report for River Sand in respect of Jagatsinghpur district has been prepared in accordance with 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 28.01.2020.
7. **TOR Details:** Terms of Reference (TOR) was granted by SEIAA, Odisha vide letter no 1503 dated 17.06.2021.
8. **Public hearing details:** The public hearing in respect of Environmental Impact Assessment for Krushnandapur Paika Nadi Sand Sairat of Sri Damodar Mohapatra over an area of 5.12Ha. under Tirtol Tahasil in Jagatsinghpur district, Odisha was conducted on 27.04.2022 at 10.30 A.M at Paikakula playground of Krushnanadpur village in Jagatsinghpur District. Issues raised during Public hearing are employment generation, development of road, provision towards repair and maintenance of village tube wells in Krushnanandapur Village, provision of assistance to Krushnanandapur Primary School, pollution control measures including operation of water sprinkling system and plantation. Total expenses to be incurred for the action plan towards public hearing issues is Rs.7 lakhs.
9. **Location and connectivity:** The said lease is located in survey of India Topo Sheet No. 73 L/7 (F45U/3), bounded by Latitude: 21°21'49.70" to 21°21'57.00" N, Longitude: 86°15'24.10" to 86°15'34.70" E bearing Khata no 1743 and plot no 72/4147. The area over 5.12 ha is a non-forest Govt. land of Nadi kissam, having ground elevation of 29 mRL. Lease area is accessible from Krushnandapur village at 0.50 km, which is well connected to Main roads and Highways. The nearest major railway station is Jhankadsarala Road at distance 6km from the lease area. Nearest National Highway is NH – 16 at a distance of 47 Km. Nearest road bridge and river embankment is 600 m and 450 m respectively.
10. There are no National parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant reserves (existing as well as proposed) present within 10 km of the applied mine lease area.
11. **Topography and drainage:** The sand bed is on the River Mahanadi. The Krushnandpur Paika Nadi Sand Sairat deposit represents a gently sloping to almost flat terrain with highest altitude of 29 mRL. The general slope is towards east. Vegetation is scanty with small bushes existing in the auction hold area. There is no human settlement within the area. The drainage of the district is mainly controlled by rivers like Mahanadi, Devi, Biluakhai & Paika. During rainy season the river water carries sand which is formed due to disintegration of rock bodies along with other suspensions. After recession of the water flow the sand gets deposited in the locations where there is less energy. The river Mahanadi flowing from west to east and forming the northern boundary of the district forms the main drainage system in the district. Besides the river Devi, a tributary to Kathajori and flowing north-northwest to south-southeast with a meandering course also forms a drainage system in the district.
12. **Baseline study:** The baseline information on micro-meteorological data, ambient air quality, water quality, noise levels and soil quality have been generated for the period of October to December 2021.

PERIOD	October to December 2021	Applicable Standards
AAQ PARAMETERS AT 7 LOCATIONS	PM2.5 – 18.9 to 33.6 µg/cu.m	60 µg/cu.m
	PM10 – 37.8 to 67.3 µg/cu.m	100 µg/cu.m

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	SO ₂ – 5.7 to 10.8 µg/cu.m	80 µg/cu.m
	NO _x – 11.8 to 26.3 µg/cu.m	80 µg/cu.m
Ground water Quality at 6 Location	pH – 6.8 to 7.5	6.5 to 8.5
	Total Hardness – 80 to 92 mg/l	600 mg/l
	Chloride - 6 to 12 mg/l	250 mg/l
	Fluorides – 0.18 to 0.20 mg/l	1.5 mg/l
	TDS – 160 to 190 mg/l	1000 mg/l
	Heavy metals (Cd <0.001, As <0.01, Hg<0.0001) mg/l	Heavy metals (Cd <0.003, As <0.01, Hg<0.001) mg/l
Surface water at 4 locations	pH – 7.1 to 7.4	
	Dissolved Oxygen – 5.9 to 6.5 mg/l	
	Biochemical Oxygen Demand – 1.5 to 2.8 mg/l	
	Chemical Oxygen demand – 8 to 20 mg/l	
Noise at 7 locations	Day (dBA Leq) 42.3 to 52.3	55
	Night (dBA Leq) - 29.8 to 43.1	45
Soil Quality at 4 locations	pH – 6.95 to 7.3, Potassium – 64.5 to 94.1 Kg/ Ha, Phosphorous – 50 to 60.9 mg/ kg, Organic Carbon % - 0.28 to 0.39, Electrical Conductivity- 55 to 75 ms/Cm	

13. **Replenishment study:** Replenishment study for pre & post monsoon period on December'2020 and May'2021 using volumetric method as per Enforcement and Monitoring Guidelines for Sand Mining. 2020). The Geological Reserve of the Area is 43552 cum and Mineable Reserve of the Area is 33420 cum. Annual Production as per Mining Plan is 15360 cum. Sections considered is 10m x 10m (3 nos CS and 1 no LS). Elevation in Pre monsoon is 16mRL and Elevation in Post monsoon is 17mRL. Annual rate of Replenishment – 32760cum.
14. **Total production and reserves:** The lessee is going to work within the said area for 5 year from 2020-21 to 2024-25 with a maximum production of 15,360 cum per annum with a total production of 76,800 cum during plan period. As estimated, the geological reserve is 43,552 cum and Mineable Reserve is 33,420 cum.
15. **Mining method:** The method of excavation of sand from Krushnandapur Sand quarry will be manual open cast mining. The mode of the deposits, geomorphology of the area and its hydrological condition are some of the factors that favour 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.
16. **Water requirement:** Total water requirement will be approx, 5 KLD for different purposes like domestic, dust suppression, plantation purposes. The water will be sourced by the lessee by tanker.

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17. **Traffic study:** The V/C ratio on the Paika road connecting the Syphone Bridge which is connect to Tarapur Road is 0.240. However, with the commencement of mining activity maximum 8 no. of trucks/tractor will carry sand from the lease area and 4 cycles for transportation of employees which will have additional PCU load of 11.4 per hour. So, with the additional PCU load due to mining operation the V/C ratio will remain as 0.249 with LoS B.
18. **Greenbelt:** It is proposed for planting 250 saplings of suitable species per annum by the lessee in vicinity of the riverbank as avenue plantation which will be undertaken in consultation with the concerned authority. There is the proposal for development of green belt towards both sides of the riverbank. The riverbank plantation will be carried out in the 1st year of mining operation.
19. **Manpower requirement:** 25 Nos. (Out of which 2 nos. are skilled, 4 nos. are semi-skilled and 15nos are unskilled) of persons are required as manpower for the proposed project.
20. **Project cost:** Estimated cost of the project is 80 lakhs. Budget for EMP cost is 3 lakhs.
21. **Environment Consultant:** The Environment consultant **M/s Kalyani Laboratories Pvt Ltd (KLPL), Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee on dtd. 24.04.2023.
22. The SEAC in its meeting held on dated **24.04.2023** 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
a)	How it has been concluded that the depth of sand deposit is 1 meter?	Depth of sand deposit has been taken 1m from the water course within the lease area was concluded from Replenishment study Report.	-
b)	Exact length of the bridge.	Exact length of the bridge is 610 m from the lease area which is situated up stream side of the bridge.	-
c)	Revised Replenishment Study Report using Drone method covering details of RL, cross sections taken, grid position etc.	Revised Replenishment study Report using Drone method for post monsoon is submitted herewith for your kind consideration.	The PP has stated in Replenishment Study Report that the quarry is not operational till now due to non grant of Environmental Clearance, hence it is studied that 21,120 m ³ extractable mineable reserve is available and has been calculated by considering 60% of mineable reserve as per the MOEF notification dated 25.07.2018, from the annual replenishment

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
			during the year 2022-23 and is sufficient for the production capacity of 15,360 m3/annum.

23. The SEAC observed the following:

- a) Replenishment study Report is not satisfactory. For Pre Monsoon and Post Monsoon study different methods (Volumetric and drone respectively) are used which are not comparable. Actual replenished volume is also not calculated.
- b) In Replenishment study Report for pre & post monsoon period on December'2020 and May'2021" was carried out But the both the time periods as mentioned come under post-monsoon category.

After detailed discussion, the SEAC decided to reject the proposal for the reason as pointed out at para 23 and PP shall submit revised replenishment study to consider the proposal.

ITEM NO. 02

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR KUSUMI & MOHUDA STONE QUARRIES CLUSTER OVER AN AREA OF 27.258 ACRES OR 11.139 HECTARES IN VILLAGE KUSUMI & MOHUDA, TAHASIL KUKUDAKHANDI IN DISTRICT GANJAM OF TAHASILDAR, KUKUDAKHANDI (SUBMITTED UNDER CLUSTER APPROACH WITH TOTAL CLUSTER AREA 11.139 HECTARES WITH CONSISTING OF 5 STONE QUARRIES) - EC

1. This proposal is for environmental clearance for Kusumi & Mohuda stone quarries cluster over an area of 27.258 Acres or 11.139 hectares in village Kusumi & Mohuda, Tahasil Kukudakhandi in District Kukudakhandi of Tahasildar, Kukudakhandi (submitted under cluster approach with total cluster area 11.139 Hectares with consisting of 5 stone quarries).
2. **Category:** The proposed project is in cluster situation as other leases are within 500 m radius of lease & total lease area becomes greater than 5 ha. So, as per the EIA notification 2006 and its subsequent amendments, proposed project falls in category B1 under Schedule of item 1(a) - Mining of Minerals.

3. Mining plans approval details of Kusumi & Mohuda stone quarries:

S.No	Name and Address of the Mine	Khata No/Plot No	Lease Area	Mining Plan Approval	EC Status
1	Kusumi Stone Quarry Mouza-Kusumi Lessee- Sri Surya Narayan Swar	Khata No-325 Plot No-147/P	2.294 Ha	1019/SZ, 30.07.2022	Applied for Fresh EC (ToR Granted in Cluster)
2	Kusumi Stone Quarry Mouza-Kusumi Lessee- Smt. Swapna Behera	Khata No-325 Plot No-147	1.199 Ha	529/SZ, 22.04.2022	Applied for Fresh EC (ToR Granted in Cluster)
3	Kusumi Stone Quarry Mouza-Kusumi Lessee- Smt. Swapna Behera	Khata No-325 Plot No-166	2.472 Ha	527/SZ, 22.04.2022	Applied for Fresh EC (ToR Granted in Cluster)

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4	Mohuda Stone Quarry Mouza-Mohuda Lessee- Smt. B.Sita Reddy	Khata No-669 Plot No-1978 (P)	4.284 Ha	905/SZ , 01.07.2020	Applied for new EC (ToR Granted in Cluster)
5	Mohuda Stone Quarry Mouza-Mohuda Lessee- Sri V.Budu	Khata No-669 Plot No-1978 (P)	0.890 Ha	531/SZ, 22.04.2022	Applied for Fresh EC (ToR Granted in Cluster)

4. There are two other identified sairat sources quarries present within 500 m of proposed cluster i.e.

S.No	Name and Address of the Mine	Khata No/Plot No	Lease Area	EC Status
1	Mohuda Stone Quarry Mouza-Mohuda Lessee- Sri Tushar Kanta Dash	Khata No-669 Plot No-1406	2.165 Ha.	EC Granted on Date: 30.07.2022 from SEIAA & Running till 27.05.2025
2	Mohuda Stone Quarry Mouza-Mohuda Lessee- Sri B. Balaji Reddy	Khata No-669 Plot No-1978 (P)	2.165 Ha.	EC Granted on Date: 10.8.2021 from SEIAA & Running till 21.08.2026

5. **DLC details:** -The proposed Sairat source under Kukudakhandi Tehsil is not coming under DLC land vide Letter no-5001 dated 03 June 2022.
6. **TOR details:** Terms of Reference (TOR) has been prescribed by SEIAA, Odisha vide Reference No: 5157/ SEIAA; File no. SIA/OR/MIN/81911/2022 dated 19.08.2022.
7. **Public hearing details:** Public hearing was successfully conducted on date 23.11.2022 at village-Kusumi, Tehsil-Kukudakhandi, District- Ganjam, Odisha. Issues raised during public hearing are local employment, local development, construction material availability for developmental works, assistance to local people, plantation, and control blasting. Funds allocated for Public Hearing issues are: Rs.89000.00 for plantation, 0.20lakhs for medical camp and 0.50lakhs for distribution of books and educational awareness campaign.
8. **Location and connectivity:** The Kusumi & Mohuda Stone Quarry lease is located at Village-Kusumi & Mohuda, Tehsil- Kukudakhandi, District-Ganjam, Odisha. The area falls in Survey of India topo sheet No. 74A/11, 74A/12, 74A/15& 74A/16.Kusumi stone quarry bears Khata no.325 plot nos.147/P (2.294 ha.),147(2.472 ha.) and 166(1.199 ha.) while Mohuda stone quarry bears Khata no 669, Plot no 1978(P) with 0.890 and 4.284 hectares. The quarry area bounded between the Latitude -19°16'37.96" N to 19°17'5.62" N and Longitude - 84°44'08.06" E to 84°44'36.64" E with an elevation of about 60m RL to 38 mRL. Nearest railway line is Berhampur Railway station at 6.0 Km NE, NH-16 is at 4.50 km in SE, SH- 22 is at 1.20 km in NW. Nearest road bridge is at Haladiapadara over bridge at a distance of 4.50km SE and nearest river embankment is at 20km in SW. Nearest reserve forest is Ramagurha reserve forest at a distance of 3.30 km in SW.
9. There is no National Park or Biosphere Reserve within 10 km distance from the lease area. The life of the mine will be 27 years for cluster.

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10. Topography and drainage: The area falls in Eastern Ghats of Odisha in Ganjam district. This group of formation comprises of granitic gneisses, granites, khondalites, chanockites and granitoids. A variety of Granite Gneiss forming peneplains ground occurs at geomorphic levels above 100- 150MSL. They are believed to be late proterozoic age. The quarry lease has highest elevation of about 60m RL and lowest elevation of 38 mRL. There is no stream crossing in the mine lease area. Dakhinapur Reservoirs is at approx 5.60 km towards NE direction.

11. Reserves and total production: As estimated, reserves of Kusumi and Mohuda stone mining lease is presently spanning over an area of 11.139ha. (Cluster area). The proposed project is to mine Kusumi & Mohuda Stone Quarry (Cluster Area 11.139ha.) for proposed production of 37,364 cum/year (under cluster approach).

Name of The Mine	Production (cum)
Kusumi Stone Quarry (2.294 ha.)	8015
Kusumi Stone Quarry (2.472 ha.)	10098
Kusumi Stone Quarry (1.199 ha.)	6148
Mahuda Stone Quarry (0.890 ha.)	3015
Mahuda Stone Quarry (4.284 ha.)	10088
Total	37,364

Name of The Mine	Geological Reserves (cum)	Mineable Reserves (cum)
Kusumi Stone Quarry (2.294 ha.)	308307	219675
Kusumi Stone Quarry (2.472 ha.)	338138	188865
Kusumi Stone Quarry (1.199 ha.)	76976	51516
Mahuda Stone Quarry (0.890 ha.)	86197	47466
Mahuda Stone Quarry (4.284 ha.)	637641	507237

12. Mining method: Mining will be done by semi-mechanized method. Mining will be done by deploying machines like jackhammer, drill compressor, rock breaker, excavator and tractors/trucks. Tipper and trucks will be used for transporting stone and waste. Drilling & blasting will be carried out as & when required. In a month, around 57- 63 no. of drill holes will be made. On monthly basis around 24kg of non-explosive blasting material will be consumed. Blasting will be carried out by an employed blaster. Short hole blasting will be practiced. Bench height will be 5.0 m and Width 5.0m. Ultimate pit slope will be 45°.

13. Waste generation: About 10% of mine waste will be generated which is mineral fines along with undersized material & other intermediate weathered products. These wastes will be disposed to the proposed dump yard in NW part of lease area. These wastes will be used for the construction of mine road. The retaining wall around the dump will be constructed to prevent the wash off dump. Around the retaining a garland drain and settling tank will be provided to prevent the possible transportation of mine dust or fines. Garland drain will be provided in 522m boundary of section 2.0m x 1.5m. The protective bound will also be prepared around the periphery of the ML area in 5m width.

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Year	Waste Generation (cu.m.)				
	Kusumi Stone Quarry (2.294 ha.)	Kusumi Stone Quarry (2.472 ha.)	Kusumi Stone Quarry (1.199 ha.)	Mohuda Stone Quarry (0.890 ha.)	Mohuda Stone Quarry (4.284 ha.)
1 st	3435	1122	1537	335	2522
2 nd	3435	1122	1537	335	2522
3 rd	3435	1122	1537	335	2522
4 th	3435	1122	1537	335	2522
5 th	3435	1122	1537	335	2522

14. Baseline study: Study at the site was monitored during pre-monsoon season March 2022 to May, 2022. Following observations were made:

- Ambient Air quality: The minimum and maximum level of PM_{2.5} recorded within the study area was in the range of 25.23µg/m³ to 43.51µg/m³ with the 98th percentile ranging between 38.44µg/m³ to 43.35µg/m³. The 24 hourly average values of PM_{2.5} were compared with the National Ambient Air Quality Standards (NAAQS) and found that all sampling stations recorded in the study area are within the applicable limits i.e., 60 µg/m³ for PM_{2.5} in rural areas. The minimum and maximum level of PM₁₀ recorded within the study area was in the range of 51.28µg/m³ to 78.13µg/m³ with the 98th percentile ranging between 72.38µg/m³ to 77.58µg/m³. The minimum and maximum concentration of SO₂ recorded within the study area was 6.23 µg/m³ to 9.78 µg/m³ with the 98th percentile ranging between 7.74µg/m³ to 9.77µg/m³. The minimum and maximum level of NO₂ recorded within the study area was in the range of 8.03µg/m³ to 15.21µg/m³ with the 98th percentile ranging between 10.49µg/m³ to 15.21µg/m³.
- Water quality: During the study period, the pH was varying for ground waters from 7.15 to 7.48 & in Surface water from 7.57 to 7.62. The total dissolved solids are varying from 275 mg/l to 303 mg/l. Hardness of ground water varies from 114 mg/l to 135 mg/l. Concentration of Fluorides is less than <0.01mg/l.
- Noise levels study: The values of noise observed in some of the areas are primarily owing to vehicular traffic. Assessment of hourly night time Leq (Ln) varies from 37.6 to 44.3dB (A) and the hourly daytime Leq (Ld) varies from 48.7 to 59.2dB (A) within the study area.
- Soil: In the study area, variations in the pH of the soil were found to be slightly alkaline (7.32 to 8.05).

15. Water requirement: A total of 17 KLD water will be required for Cluster applied area. The water will be supplied from available sources from nearby village.

Purpose	Water requirement (KLD)					Total
	Kusumi Stone Quarry (2.294 Ha.)	Kusumi Stone Quarry (2.472 Ha.)	Kusumi Stone Quarry (1.199 Ha.)	Mohuda Stone Quarry (0.890 Ha.)	Mohuda Stone Quarry (4.284 Ha.)	
Domestic &	0.85	1.03	0.67	0.67	0.85	4.07

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drinking					
Dust suppression	9.2				9.2
Green belt development	2.75				2.75
Total					16.02 ~ 17 KLD

16. Wastewater management: The wastewater generation from the above consumption is mainly from domestic consumption i.e., the wastewater generated from the domestic front is mainly from toilets. This water will be treated in septic tank followed by soak pit.

17. Power supply: Electrical power will be required only for site office and will be obtained from Solar energy. Transportation will be done through dumpers or trucks operating on diesel. No storage for diesel is proposed.

18. Greenbelt: The entire plantation will be done on the periphery of the reclaimed area. Precautionary measures will be taken for care of the forestation made by regular watering in the afforested area, to protect from grazing animals.

Year	Total Plantation	Green belt Nos.				
		Kusumi Stone Quarry (2.294 Ha.)	Kusumi Stone Quarry (2.472 Ha.)	Kusumi Stone Quarry (1.199 Ha.)	Mohuda Stone Quarry (0.890 Ha.)	Mohuda Stone Quarry (4.284 Ha.)
1 st year	1377	189	438	250	250	250
2 nd year	1377	189	438	250	250	250
3 rd year	1377	189	438	250	250	250
4 th year	1377	189	438	250	250	250
5 th year	1377	189	438	250	250	250
Total	6890	945	2190	1250	1250	1250

19. Employment generation: The total manpower requirement for the proposed project is 91 persons.

20. Project cost: The estimated cost of the project is 2.6 Crores (Cluster).

S.No	Name and Address of the Mine	Applicant	Total Cost (Rs)	CER 2% of Total Cost in Rs)
1	Kusumi Stone Quarry Khata No 325, Plot No 147/P, Mouza-Kusumi	Sri Surya Narayan Swar	60 Lakhs	Rs 1,20,000
2	Kusumi Stone Quarry Khata No 325, Plot No 166, Mouza-Kusumi	Smt. Swapna Behera	50 Lakhs	Rs 1,00,000
3	Kusumi Stone Quarry Khata No 325, Plot No 147, Mouza-Kusumi	Smt. Swapna Behera	50 Lakhs	Rs 1,00,000
4	Mohuda Stone Quarry Khata No 669, Plot No 1978/P, Mouza-Mohuda	Smt. B. Sita Reddy	50 Lakhs	Rs 1,00,000
5	Mohuda Stone Quarry Khata No 669, Plot No 1978(P), Mouza-Mohuda	Sri V. Budu	50 Lakhs	Rs 1,00,000

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The EMP (For Cluster) cost includes capital cost of Rs 20.02 Lakhs and recurring cost of 12.50 Lakhs.

Sl. No.	Measures	Capital Cost (In Rs.)	Recurring Cost (In Rs.)
1	Water Sprinkling/Air Pollution Control (Dust Suppression along haulage road and mine)	--	5,00,000
2	Greenbelt development safety zone 7.5 mtr and along the road (for each plants including hedges and fences)	13,77,000	2,50,000
3	Environment Monitoring (Air, Water, Noise & Soil Monitoring)	--	2,50,000
4	Construction and Maintenance of Haul Road	6,25,000	2,50,000
Total		20,02,000	12,50,000

21. **Environment Consultant:** The Environment consultant **M/s P & M Solution, Noida** along with the proponent made a presentation on the proposal before the Committee on dtd. 10.03.2023.

22. The SEAC in its meeting held on dated **10-03-2023** recommended the following:

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

- i) There are 7 quarries in cluster, out of which EC has been granted by DEIAA to 2 quarries. Clarification how DEIAA has granted EC to 2 quarries when total cluster area was more than 5 ha. Further, proper justification/Clarification through a write-up from district authority that why it should not be considered as violation.
- ii) Copies of Environmental Clearance of 2 quarries granted by DEIAA.
- iii) Mitigation plan for flying rocks during blasting in cluster.
- iv) Layout plan of garland drain and settling pond and silt management.
- v) Details of nearby structures in tabulated form.
- vi) Mohuda Solid Waste Management Plant of Berhampur Municipal Corporation is located around 170 meter away from the quarries. Permission from Berhampur Municipal Corporation for operation of stone quarries near to Mohuda Solid Waste Management Plant.

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

- i) Environmental settings of the lease area.
- ii) Cluster situation of the total lease area.
- iii) Mining activity, if any carried out in the lease area.
- iv) Road connectivity to the lease area.
- v) Possible impact of mining activity on the Common Solid Waste Management Plant (Mohuda) of Berhampur Municipal Corporation.
- vi) Any other issues including local issues.

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

Proceedings of the SEAC meeting held on 12.07.2023 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
a)	<p>There are 7 quarries in cluster, out of which EC has been granted by DEIAA to 2 quarries. Clarification how DEIAA has granted EC to 2 quarries when total cluster area was more than 5 ha. Further, proper justification/Clarification through a write-up from district authority that why it should not be considered as violation.</p>	<p>The Compliance report from the district authority is attached herewith, as Annexure – I.</p> <p>On verification of the records, it is found that 7 (seven) no. of sairat proposals were submitted separately by the Tahasildar, Kukudakhandi for grant of Environmental Clearance in respect of Mohuda and Kusumi Quarries. All the proposals were supported by the documents such as, Mining Plan approval, Check list, form 1m etc.</p> <p>Out of 7 (seven) no. of proposals, 4 (Four) no. of proposals i.e. (1 Kusumi-I) Stone Quarry (2) Mohuda Stone Quarry (3) Kusumi –II Stone quarry (4) Mohuda Stone Quarry – 1 were approved in DEIAA meeting held on 29.06.2016.</p> <p>1 (one) no. of Proposal i.e. Mohuda Road Metal Quarry was approved in DEIAA meeting held on Dated 06.12.2016.</p> <p>All the above proposals were applied by different proponents individually (not in cluster) along with a certificate issued by the Tahasildar, Kukudakhandi in the Check List.</p> <p>Remaining, 2(two) no. of Proposals i.e. (1) Kusumi Stone Quarry (2) Kusumi Stone quarry-1 were applied in a Cluster Proposal by Tahasildar, Kukudakhandi with two different plot nos. Such as Plot No. 147/1 and Plot No. 147. The area of Plot No. 147/1 is 2.294 Hectors and Plot No. 147 is 2.472 Hectors with a total area applied is 4.776 Hectors (within 5 Hectors). Basing on this, the Cluster Proposal was approved for granting of EC by DEIAA on 01.05.2017.</p>	-
b)	Copies of Environmental Clearance of 2 quarries granted by DEIAA.	DEIAA granted only one Stone quarry vide letter no. 1732 Dated 21.12.2016, the other has been granted by SEIAA Dated 10.08.2021 attached as Annexure – II.	The other quarry which had been granted by SEIAA Dated 10.08.2021 is not attached as

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
			Annexure – II of the Compliance report.
c)	Mitigation plan for flying rocks during blasting in cluster.	Attached as Annexure – III.	complied
d)	Layout plan of garland drain and settling pond and silt management.	Attached as Annexure – IV.	complied
e)	Details of nearby structures in tabulated form.	Attached as Annexure – V.	complied
f)	Mohuda Solid Waste Management Plant of Berhampur Municipal Corporation is located around 170 meter away from the quarries. Permission from Berhampur Municipal Corporation for operation of stone quarries near to Mohuda Solid Waste Management	Copy of NOC from Berhampur Municipal Corporation is attached as Annexure – VI.	Copy of NOC from Berhampur Municipal Corporation is attached as Annexure – VI has been submitted with specific conditions.

After detailed discussion, the SEAC decided to take decision on the proposal after receipt of the following information / documents from the proponent followed by a site visit by the Sub-Committee of SEAC.

- a) As stated by PP, copy of Environment Clearance letter of the other quarry which had been granted by SEIAA, dated 10.08.2021.

ITEM NO. 03

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF JAHADA SAND QUARRY OVER AN AREA OF 18.788 ACRES/7.603 HA. AT VILLAGE JAHADA OF TAHASIL-DHARAKOTE IN DISTRICT GANJAM OF SRI KESHARAO DORA - EC

1. This proposal is for Environmental Clearance of Jahada Sand Quarry over an area of 18.788 acres/7.603 ha. At Village Jahada of Tahasil-Dharakote in District Ganjam of Sri Kesharao Dora.
2. **Category:** The Ministry of Environment, Forests & Climate Change, Govt. of India, through its EIA Notification of 14th September' 2006 and its subsequent amendment on dated 1st December' 2009 and 04.04.2011 under the Environment Protection Act, 1986, the project is categorized in Category-B1 of Schedule under item 1(a)-Mining of Minerals.
3. The mining lease granted by Tahasildar, Dharakote, Ganjam has been auctioned and leased out to the successful bidder Sri Kesharao Dora, S/o-Duryodhan Dora, At/ P.O-Janibilli, P.S.-Dharakote, Dist – Ganjam after obtaining statutory clearances vide letter no 1299 dated 19.04.2022. The mining lease will be granted on for long term basis for 5 years and the lease period will start from the date of registration of executed lease deed.
4. The Mining plan has been approved by the Deputy Director of Geology (Authorized Officer), O/o The Joint Director of Geology (S.Z), Berhampur vide memo no – 592/SZ on dated 02.05.2022.
5. The mining lease area is listed as an identified sand minor mineral in Page – 93, Serial no 5, in DSR of the Ganjam district.

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6. **TOR details:** Terms of Reference (ToRs) Letter for the Jahada Sand Bed has been obtained in favour of Tahasildar, Dharakote vide letter no – 5193/SEIAA on dated 19.08.2022.
7. **Public hearing details:** The public hearing in respect of the above project was held on 05.01.2023 as per schedule and the venue in accordance with the EIA notification S.O.1533 (E) dt.14.09.2006. Issues raised during public hearing are Air Pollution Control (water sprinkling, plantation in nearby school and roads), employment to locals, health care (health camp, blood donation camp etc in nearby village namely Jahada), drinking water (installation of RO plant to nearby village) and maintenance of roads. Total budget incurred for action plan of public hearing issues is Rs. 3,50,000.
8. **Location and connectivity:** The Jahada Sand quarry is on Khata no- 861, Plot no – 5680 & 5681 of Kissam Nadi at village Jahada in Dharakote Tahasil in Ganjam District of Odisha. The area under discussion is featured in Survey of India Topo Sheet No – E45A10 and is bounded between the Latitude -19° 40' 41.98" N to 19° 40' 51.90" N and Longitude – 84° 33' 37.19" E to 84° 33' 53.23" E. The lease area is located at a distance of 0.7km from village Jahada and at a distance of 4.5 kms from Dharakote, 56 kms from the District Headquarters Ganjam and 150 kms from the State Capital Bhubaneswar. Berhampur railway station is the nearest railway station located at a distance of 49 kms from the lease area. Nearest Road Bridge-Nandighora is at a distance of 2.7km from the mining lease area. Metal road connecting to the lease area and is at distance of 0.28 km. SH – 36 is at 11.5 km and it is the nearest major district road. NH- 59 is the nearest National Highway which is at a distance of 0.61km.
9. There is no National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/ Elephant Reserves (existing) is situated within 10km of the mining lease area.
10. **Replenishment study:** The volume of sand available after post monsoon is around 27760.2 m³ , which can be treated as safe extractable within the framework of the study after arrival of river level as it was in pre monsoon. Further volume of sand also computed, which can be extracted as on date (during mining plan preparation) is 35590m³. As it is a new mine no excavation has done in this year. So, total minable reserve available for mining is 35590 + 27760.2 = 63350.2 m³ whereas, approved production capacity for the year is 11,000 m³.
11. **Total production and reserves:** The average production is proposed to be 11000cum/year and 55000 cum is the total production during the plan period. As estimated, geological and mineable reserve of the proposed project is 46452cum and 35590cum respectively. Extractable mineable reserve is 21354 cum.
12. **Mining method:** The mining is done by manual mining method using spade axe and hand picks. Transportation will be done by Tippers/Tractors. No benching will be necessary. One quarry with a depth of 1.0 m will be developed. The development for the ensuring five years period has been proposed in the river sand within the lease area. The floor level at the end of the five-year plan period of the concession will be 55 m RL.
13. **Water requirement:** Water requirement for the project will be 3.0 KLD. Water required in the project will be for drinking purpose and dust suppression, which will be sourced from water tanker.

14. **Power Requirement:** Power will not be required for operations as the mining will be worked out during day time only. Minimal power required for office shall be taken from the General Electric supply of the area.
15. **Greenbelt:** Plantation will be done on the bank of the river. 250 plants are to be planted on the river bank to protect the river bank side from erosion & protection of the environment. Sapling of trees like Banyan, Peepal, Mahaneem, Arjun Kadamba, Mango, Jackfruit, Jamun, Kendu, Nim etc to be planted.
16. **Manpower requirement:** Employment Generation from the project is 23 nos. of people. Indirect employment through creation of shops/ stalls, hired vehicles, etc. also, can be generated to full fill the day-to-day requirements of the mining personals.
17. **Baseline summary:** Baseline study has been collected for Pre monsoon season, March 2022 to May 2022.
- a) **Soil Status:** It has been observed that the pH of the soil in the study area ranged from 7.43 to 8.06. The electrical conductivity was observed to be in the range of 340.33 μ mhos/cm to 380.1 μ mhos/ cm. The total nitrogen values range between 104.2 to 175.8 mg/kg. The phosphorus values range between 41.4 to 54.95 mg/kg, indicating that the phosphorus content in the study area falls in less to medium category. The potassium values range between 182.5 – 222.7 mg/kg.
 - b) **Surface Water:** The analysis results indicate that pH and total coliform of the Surface water was found to be in range of 7.5 – 8.2 and 232 - 340 MPN/100ml.
 - c) **Ground Water:** The analysis results of ground water samples showed the pH in range of 6.84-7.82 which are with the specified standard limits of 6.5 to 8.5. Color and turbidity of the samples < 5.0 Hazens and <1.0 NTU respectively. The total hardness of the samples ranged from 240.2 mg/l – 292.3 mg/l. Calcium and magnesium concentrations ranged from 53.35 mg/l -68.9 mg/l and 30.40 mg/l –45.39 mg/l respectively. The total dissolved solids of the samples ranged from 550.9 mg/l – 724.3 mg/l. The TDS values are within the stipulated 2000 mg/l. Range of chlorides and sulphates concentrations ranges from 106.9 mg/l- 147.8 mg/l and 38.4 mg/l – 51.8 mg/l respectively. Fluoride concentration ranged from 0.28 mg/l – 0.42mg/l and is found to be within the permissible limits. Iron concentrations in ground water varied from 1.06-1.28 mg/l. Zinc levels varied from 0.53-0.80 mg/l respectively. Aluminium concentration in ground water is <0.02 mg/l at all locations.
 - d) **Air quality:** The maximum value for PM10 observed at Project Site location 71.4 μ g/m³ and minimum value for PM10 observed at Kharigurha Village 45.1 μ g/m³. The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 100 μ g/m³. The maximum value for PM2.5 observed at Project Site location 45 μ g/m³ and minimum value for PM2.5 observed at Kharigurha Village 26.5 μ g/m³. The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 60 μ g/m³. The maximum value for SO₂ observed at Project Site location 11.5 μ g/m³ and minimum value for SO₂ observed at Haripur Village 5.1 μ g/m³. The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 80 μ g/m³. The maximum value for NO₂ observed at Project Site location 20.0 μ g/m³ and minimum value for NO₂

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observed at Haripur Village 7.4 µg/m³. The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 80 µg/m³. The maximum value for CO observed at Project Site location 1.27 mg/m³ and minimum value for CO observed at Haripur Village 0.32 mg/m³. The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 4 mg/m³.

- e) **Noise study:** The daytime (Leq day) noise levels are observed to be in the range of 44.7 –54.8 dB(A) which are within the prescribed limit of 55 dB(A). The maximum noise level of 54.8 dB (A) was observed at Kapilash mine site and the minimum noise level of 44.7 dB(A) was observed at Village Sasapur during the study period. It is observed that the day time noise levels are in accordance to the prescribed limit of 55 dB (A). The nighttime (Leq night) Noise levels are observed to be in the range of 33.2 – 44.6 dB(A) Which are within the prescribed limit of 45 dB(A). The maximum noise level of 44.6 dB (A) was observed at Kapilash mine site and the minimum noise level of 33.2 dB (A) at Village Haripur during the study period. It has been found that the night time noise levels are in accordance to the prescribed limit of 45 dB (A).

18. **Project cost:** Estimated project cost of the proposed project is 50.0 Lakhs. EMP cost budget includes capital cost Rs. 4,70,000/-of and recurring cost of Rs. 2,35,000.

S. No.	Description	Capital Cost (Rs.)	Recurring Cost (Rs.)
a)	Air pollution Control: Dust Suppression/ Water Sprinkling	30,000	1,00,000
b)	Road Maintenance	50,000	60,000
c)	Greenbelt	40,000	25,000
d)	Personal Protective Equipment	-	20,000
e)	Environmental monitoring	-	30,000
f)	Addressal of Public Hearing issues	3,50,000	-
Total		4,70,000/-	2,35,000

19. **Environment Consultant:** The Environment consultant **M/s Parivesh Environmental Engineering Services, Lucknow**, along with the proponent made a presentation on the proposal before the Committee on dtd. 03.05.2023.

20. The SEAC in its meeting held on dated **03.05.2023** 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
	Copy of Environmental Clearance granted earlier and compliance report to previous EC conditions, as it is an existing quarry from period 2016-17 to 2020-21 as per DSR.	EC Compliance Report of previous EC conditions along with earlier granted EC has been attached for your reference as Annexure-1 .	complied

Considering the information furnished and the presentation made by the consultant, **M/s Parivesh Environmental Engineering Services, Lucknow**, along with the project proponent, the SEAC recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions as per **Annexure – A** and following specific conditions:

- a) Amended EIA Notification dated 25th July, 2018, Guidelines for sustainable sand mining,

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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**.

- b) 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.
- c) Provision of Bio-toilet shall be made at the site.
- d) 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.
- e) 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. 04

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 Kalyanpur 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

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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).
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 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 $78,695\text{m}^3$ and the extractable amount is $47,217\text{m}^3$ (60% of the mineable reserve). Keeping in view of the post monsoon extractable sand, the annual rate of excavation comes to the tune of **9,443 m³**. The approved mining plan production capacity is **18700cum/year** and total production is 93500cum.
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

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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.

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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 dtd. 17.02.2023.

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

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 were made:

- 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 .

After detailed discussion, the SEAC recommended to consider the proposal after the proponent furnish the following information / documents as pointed out by the Sub-Committee of SEAC in

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the site visit report 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.

- a) The Replenishment study report separately for both beds with a summary of mining quantity proposed based on replenishment study finding.

ITEM NO. 05

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR KATHAJODI RIVER SAND QUARRY, BAGULAPADA MINES ON RIVER KATHAJODI OVER AN AREA OF 5.26 HA./ 13.00 ACRE IN VILLAGE BAGULAPADA UNDER SADAR CUTTACK TAHASIL OF CUTTACK DISTRICT OF SRI RAJENDRA PRASAD SINGH - EC

1. This proposal is for environmental clearance for Kathajodi river sand quarry, Bagulapada mines on river Kathajodi over an area of 5.26 ha. /13.00 Acre in village Bagulapada under Sadar Cuttack Tahasil of Cuttack district of Sri Rajendra Prasad Singh.
2. **Category:** As per the EIA Notification,2006 and its subsequent amendments, this project falls in category B under Schedule of activity 1(a) - Mining of Minerals.
3. **Project details:** The proposed mining project is the river bed sand mining on Kathajodi River at village Bagulapada under Sadar Cuttack Tahasil of Cuttack District, Odisha, over an area of 5.26Ha. or 13.00Acres out of which 3.889 Ha. area will be used for excavation of sand within the plan period and 0.971 Ha. area dedicated for safety zone/plantation purpose. Earlier the mining was carried out in the lease area and obtained environment clearance from SEIAA Odisha vide letter no 3858/SEIAA dated 14.08.2015 for five years. The lease period for the previous lease has been completed and now the lease will be freshly auctioned by Tahasildar, Cuttack sadar after obtaining Environment clearance and thus considered as a new lease after auction.
4. The Quarry lease has been proposed to be granted by the Tahasildar, Sadar Cuttack to the applicant (successful bidder) for minor mineral (River Sand) for five years.
5. As per the Director of Geology, Odisha, the mining plan has been approved by the Deputy Director of Geology, Cuttack, Odisha vide memo no.3162DG on dated 21.05.2020.
6. The mining lease is an identified sairat source in the DSR Sl. 5 in Annexure I.
7. **TOR details:** The Terms of Reference (ToRs) has been issued by SEAC, Odisha vide Letter No. 9652/SEIA on dated 19.11.2020.
8. **Public hearing details:** Public hearing was conducted on Dtd.05/11/2021 at 11.30 A.M. at Mattagajpur Park, Mattagajpur under Cuttack Sadar Tahasil in Cuttack District, by SPCB, Odisha, Bhubaneswar with assistance of SPCB Regional Office, Cuttack and District Administration, Cuttack Dist., Govt. of Odisha. Issues raised were plantation, water sprinkling provision to control dust pollution, river embankment strengthening and employment. A total of 12.80 lakhs has been earmarked by the proponent for the environment and peripheral development work as per the demand raised during public hearing consultation.

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9. **Location and connectivity:** The proposed project is located in survey of India toposheet no. (73 H/3) & bounded between latitude of 20°26'14.38N to 20°26'21.22.15"N and longitudes of 85°56'21.52"E to 85°56'33.57"E bearing Khata No. 25, Plot no-116, Kisam-Nadi. Nearest Railway station is Cuttack Railway station at 5km from the project site. The nearest road is Cuttack Paradeep Road located at 1km. The site is well connected to NH-5 at 5km. Nearest airport is Bhubaneswar airport at 20km from the mining lease area. Water reservoir (Taladanda canal) is 1.5km away from the site. From the site, the nearest road bridge and habitation is 5.5km and 3km away respectively. River embankment is 1.0km away from the site.
10. **Topography:** The land is the government land leased for excavation of river sand. There will be no change in land use pattern after the end of plan period as the land will remain as the part of Kathajodi river bed and the quarry area will be replenished during the rainy season. The sand bed is on the river Kathajodi. The Bagulapada sand bed deposit represents a gentle sloping to almost flat terrain with highest altitude of 21.5 mRL. The general slope is towards east. There is no human settlement within the area.
11. **Replenishment report:** Replenishment study was conducted for pre & post monsoon period on May 2021 and October 2021. Ground survey by Total Station on 5 numbers of cross sections for pre monsoon and post monsoon and 1 numbers of longitudinal sections. River bed RL at selected points in the dry portions of Kathajodi river was measured during Pre-monsoon period (May 2021) and again during post-monsoon period (October 2021). It was observed that there is an average increase of river bed RL by 0.65m due to sediment deposition during the monsoon. The average width of the river as measured in the lease area is 113m and length is about 270 m. So replenished quantity of sand available in each year within the sand bed is 20000m³. The recoverable sand depth in the area is 2.2m and the mining operation will go up to maximum depth of 1.5m.
12. **Reserves and total production:** The total geological resource and mineable reserve for the quarry lease period has been estimated as 151758Cum and 116670 Cum. Similarly, the extractable mineable reserve of river bed sand for the QL period is worked out to be 70002Cum. Total production of sand in the proposed project is 14000cum/annum.

Year	Production of Sand (m ³)
1 ST YEAR	14000
2 ND YEAR	14000
3 RD YEAR	14000
4 TH YEAR	14000
5 TH YEAR	14000
Total	70,000

13. **Mining method:** The method of excavation of sand from Bagulapada Sand quarry will be semi-mechanized open cast mining. The mode of the deposits, geomorphology of the area and its hydrological condition are some of the factors that favour 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. Benching pattern is not feasible in

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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 3 m or up to water table whichever is less.

14. **Water requirement:** For drinking & domestic purpose, water requirement will be 1 KLD, water requirement for green belt development and dust suppression will be 2 KLD. Ground water will be used for drinking and domestic purpose whereas surface water will be used for green belt development and dust suppression. So total water requirement for the proposed project is 3 KLD. A 10 KLD water tanker will be hired by the lessee for fulfilling both domestic and non-domestic water requirement for the mining.
15. **Baseline details:** The baseline information on ambient air quality, water quality, noise levels and soil quality have been generated for the period of October to December 2020.
 - a) **Water quality:** From the surface water quality results, it can be inferred that all the parameters analysed are under the prescribed limit as per IS 2296:1982 as per class C and the water does not contain any pollutants which would be hazardous for human, animal or crop health. Ground water quality pH ranges from 6.6 to 7.2. The pH of the surface water in the study area is almost neutral. Total Dissolved Solids ranges from 96-480 mg/l. This indicates the presence of lower amount of ionic substance in the water. Total Hardness ranges from 54 to 198 mg/l and turbidity ranges from 0.3 to 0.9 mg/l.
 - b) **Noise levels:** The study area includes industrial and residential areas. The ambient noise levels were measured in 8 sampling locations. In the project site the daytime noise level is 45.3 dB (A) and the nighttime noise level is 37.6 dB (A). The maximum noise level is 52.1dB (A) during the daytime at Purighat Village and minimum noise level is 32.3 dB (A) during the nighttime at Rajahansa Village.
 - c) **Ambient Air Quality:** In the study area, the observed source of particulate matter is material handling and vehicular movement. During the study period, the concentration of PM_{10} varies from 50 to $58\mu\text{g}/\text{m}^3$; the concentration of $PM_{2.5}$ varies from 20.1 to $27.2\mu\text{g}/\text{m}^3$. The concentration of SO_2 varies from 5.2-9.3 $\mu\text{g}/\text{m}^3$ and the concentration of NO_x within the project site ranges between 11.8-20.5 $\mu\text{g}/\text{m}^3$.
 - d) **Soil quality:** The soil analysis result shows that the pH of the soil is neutral (pH 6.7-7.9) range. Bulk density ranges from 1.11 to 1.18g/cc, ToC ranges from 0.64 to 1.60 %, Electrical conductivity ranges from 81 to 277 $\mu\text{s}/\text{cm}$, available phosphorous ranges from 13.2 to 41.3 Kg/Ha, available nitrogen content ranges from 50.2 to 125.5 Kg/Ha and available Potassium content varies from 26.9 to 80.6 Kg/ Ha. The soil texture is loamy sand and colour is light brown to brown. Soil analysis result shows that the soil is low in fertility.
16. **Greenbelt:** It is proposed for planting @100 saplings of suitable species per annum by the lessee in vicinity of the riverbank as avenue plantation which is to be undertaken in consultation with the concerned authority. There is the proposal for development of green belt on both sides of the riverbank. The riverbank plantation will be carried out in the 1st year of mining operation.
17. **Employment generation:** Due to the proposed sand mining, there will be generation of employment for 21 persons. Out of which, 4 nos. are skilled, 06 nos. are semi -skilled and 10 nos. are unskilled and 1 supervisor.

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18. **Project cost:** The total cost estimated for the proposed project is 10 lakhs. Cost towards implementation of Environment Management Plan (EMP) is 4 lakhs per annum.

SI. No.	Particulars	Cost/ Annum (Rs.)
1.	Environmental Monitoring: Air, Noise 3 Point each and Water 2 points (Twice yearly)	Rs. 1.50Lakhs
2.	Water sprinkling on the haul road	Rs. 1.00 Lakhs
3.	Green belt development in riverbank	Rs. 1.00 Lakhs
4.	Occupational health	Rs. 0.50 Lakhs
Total		Rs. 4.00 Lakhs

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 dtd. 10.03.2023.

20. The SEAC in its meeting held on dated **10-3-2023** recommended the following:

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

- i) Previous production figures as per Previous EC duly certified by concerned Tahasildar.
- ii) Permission/NOC from Irrigation Department for use of the approach road.
- iii) Traffic Study Report duly vetted by the reputed institution.
- iv) Number of cross sections taken for Replenishment Study Report with details of erosion and accreditation levels.

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

- viii) Environmental settings of the lease area.
- ix) Mining activity, if any carried out in the lease area.
- x) Sand deposit in lease area as KML file shows no sand deposit.
- xi) Road connectivity to the lease area.
- xii) Distance of the road and railway bridge from the boundary of the lease area.
- xiii) Distance of embankment from sand deposit.
- xiv) Any other issues including local issues.

21. The proposed site was visited by Sub-Committee of SEAC on dated **29.04.2023** and following observations were made:

- a) PP, Consultant and Revenue Supervisor of concerned Tahasil were present.
- b) The sand site was not approachable as there was no road and the site could not be shown as there was no demarcation.
- c) As per the coordinates shown through GPS at one side, it was observed that the major area was filled with bushes and few area with water bodies, excepting few pockets of sand at far places (not approachable).

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- d) High tension line was found to be close at one side, however the distance could not be accessed as the side was not approachable.
- e) As the current site as proposed is not fit for mining of sand, it was suggested to modify the mining plan limiting to the few sand pockets in the lease area, without disturbing the areas covered with plants, bushes and water bodies. Further, keeping the safety zone the mineable reserve needs to be accessed from the visible sand pockets only. Approach road to be developed for safe transportation of sand. The revised mining plan and proposal as above certified by Tahasildar may be submitted for further action.
- f) There was no bridge nearby.
- g) **General observation:** As sand mining is dynamic in nature, it is suggested that the concerned Tahasildar may physically visit the site before auction.

After detailed discussion, the SEAC recommended to consider the proposal after the proponent furnish the following information / documents as pointed out by the Sub-Committee of SEAC in the site visit report dated 29.04.2023 in addition to the information/ documents as sought vide SEAC letter no. 246/ SEAC-(Misc)-28, dated: 17.04.2023.

- a) As the current site as proposed is not fit for mining of sand, it was suggested to modify the mining plan limiting to the few sand pockets in the lease area, without disturbing the areas covered with plants, bushes and water bodies. Further, keeping the safety zone the mineable reserve needs to be accessed from the visible sand pockets only. Approach road to be developed for safe transportation of sand. The revised mining plan and proposal as above certified by Tahasildar may be submitted for further action.
- b) The sand site was not approachable as there was no road and the site could not be shown as there was no demarcation. This has to be clarified.
- c) As per the coordinates shown through GPS at one side, it was observed that the major area was filled with bushes and few areas with water bodies, excepting few pockets of sand at far places (not approachable). This has to be clarified.
- d) High tension line was found to be close at one side, however the distance could not be accessed as the side was not approachable. Copy of Clearance from concerned authority to be submitted.

ITEM NO. 06

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR KERANDI SAND BED OVER AN AREA OF 20.717 ACRES OR 8.384 HECTARES IN VILLAGE KERANDI UNDER PARLAKHEMUNDI TAHASIL OF GAJAPATI DISTRICT BY SRI G. VENKATARAMANA- EC

1. This proposal is for environmental clearance for Kerandi sand bed over an area of 20.717 acre or 8.384 Hectares In village Kerandi under Parlakhemundi Tahasil of Gajapati District of Sri G. Venkata Ramana.
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 proposed mine lease has been granted to Tahasildar Paralakhemundi, Gajapati District. The mining plan for the ML area has been approved by the Dy. Directorate of Geology Authorized officer, O/o Joint Directorate of Geology, Berhampur (South Zone), Odisha vide Memo no 260(2)/SZ dated 25.02.2020.

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4. The Letter Of Intent for mining has been issued for 5 years period dated 20.05.2019.
5. The sairat at of the Mine has been auctioned for leasing purpose and the Mine lease has been awarded to Sri. G.Venketa Ramana by Tahasildar Paralakhemundi, Gajapati District. vide letter no 7325/ Sairat Dated 31.12.2019
6. **Public hearing details:** Public hearing was held on 19.09.2022 in the Gram Panchayat office, Kerandi village, Gajapati district. Issued raised during public hearing were sand mining from the river bed, transportation of sand, dust suppression measure, environment protection, peripheral development, road development and plantation. The CER budget will be 2% about Rs. 40000 of the total project cost will be spend after discussion with District Collector.
7. **TOR details:** Terms of Reference (ToR) of proposed Sand mining project has been issued by SEIAA, Odisha vide File no-SIA/OR/MIN/70575/2021 dated 02.03.2022
8. **Location and connectivity:** The proposed Kerandi sand quarry comes under the village Kerandi, Tehsil-Paralakhemundi, District- Gajapati, in the State of Odisha. The project site is located in survey of India Toposheet No. 74B/1 & 74B/2 and bounded between the Longitude 84°06'23.5"E to 84°07'28.8"E and Latitude 18°45'49.00"N to 18°46'09.3"N. Mine Lease area is accessible through by own conveyance from SH 4 which is 1.2 Km away from ML area in North direction. The area is at a distance of 03km from district headquarters Gajapati.. The nearest railway station is Paralakhemundi railway station at a distance of 4.10 Km in NW.Nearest road bridge and river embankment is at a distance of 2km and in southwest direction of the project site.
9. **Topography and drainage:** The proposed sand bed is on the River Mahendratanaya. The river flows from East to West direction along the quarry lease area. The quarry lease area is present a bove 2.0 Km in North–East of the village Kerandi. The proposed area is more or less flat with highest elevation of 56 m above msl. The shallow depth excavation on dry/nominally wet sand close to the bank or dry river bed mining has been proposed which will have no impact on drainage. Abandoned stream channels on terrace and inactive flood plains have been preferred rather than active channels and flood plains.
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 after post monsoon is around 48370 m³, which can be treated as safe extractable within the framework of the study after arrival of river level as it was in Premonsoon. Further volume of sand also computed which can be extracted as on date (during mining plan preparation) is 96740 m³. As it is a new mine no excavation has done in the present year. So, total minable reserve available for mining is 1,45,110 m³ whereas, approved production capacity is for the year is 6,000 m³.
11. **Reserves:** Total Geological reserves is estimated to be 150980Cum. and total minable reserves is estimated to be 96740 Cum. Total production is given in the following table:

Year	River Sand Production in cum
1st	6000
2nd	6000
3rd	6000

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4th	6000
5 th	6000
Total	30000

12. Mining method: It is proposed to produce targeted sand production by opencast manual method of mining without drilling and blasting. Sand from river bed within the lease area will be extracted by manual method using handpicks, spade, hand shovel and manually loaded into trucks/tractors and dispatched. The sand will be collected in dry river bed in the lease area. Mining will be started from north western part of the quarry and progress towards eastern side. A 7.5 m wide safety barrier will be left undisturbed around the mine lease boundary. The mineral extraction will be done for a period of 210 days in a year. Dry pit mining will be followed i.e mining at all times will be above flowing river bed water level with no mining when water is above bed level. Sand will be collected in slices up to a depth of 2.0 m. Sand will be transported to the buyer's location by 8 Cum/4 Cum capacity trucks/tractors.

13. Water requirement: Total water requirement for the mining project is 4.0KLD. This water will be supplied from the nearby village through hired tankers.

Activity	Water requirement in KLD	Source
Dust suppression /allied mining activity	2.0	Through tankers from nearby villages & bore well
Green Belt/Plantation	1.0	
Domestic	1.0	
Total in KLD	4.0	

14. Baseline study: The baseline data generation has been carried out during March 2021 to May 2021 for the period of three months.

- During the study period the concentration of PM₁₀ varies from 60.56 µg/m³ to 92.14 µg/m³. Concentration of PM_{2.5} varies from 39.4 µg/m³ to 55.6 µg/m³. The concentration of SO₂ varies from 4.5µg/m³ to 11.3 µg/m³ and NO_x concentrations vary from 11.3 µg/m³ to 22.1 µg/m³. From the ambient air quality monitoring carried out for three months (March-May 2021) of the study period shows that the critical pollutants like PM₁₀, SO_x and NO_x are well within the permissible limits.
- The noise level as measured in the core zone is 55.8 dB (A) in daytime and 43.5 dB (A) in the night time. In the buffer zone the noise level ranges from 50.4 dB(A) & 56.4 dB(A) during day time and 40.1 dB(A) & 46.8 dB(A) during night time.
- The pH level of the ground water sample ranges from 7.32-7.52. This indicates that the pH of the ground water in the study area is nearly neutral and as per the drinking water standard. Total hardness ranges from 250-315 mg/l, and total dissolved solid ranges from 415to 471mg/l.
- The pH range of the surface water samples is neutral ranging from 7.1 to 7.9. Dissolved oxygen in the surface water sample ranges from 7.2-7.8mg/l. Chemical oxygen demand of the surface water body is 6-8 mg/l.

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e) The analysis results show that soil is basic in nature as pH value ranges from 7.82 to 8.24 which show that the soil is alkaline in nature. Potassium is found to be from 48.21 mg/kg to 60.45 mg/kg. The water holding capacity is found in between 15.28% to 17.46%.

15. **Greenbelt:** Plantation will also be carried out along the mineral transportation roads in the nearby villages. About 200 saplings will be planted in year. Also plantation will be carried out in the available free government areas with in the study area.

S.No	Year	No. of plants to be Planted	Area of Plantation in Ha.
1	1st Year	40	0.035
2	2nd Year	40	0.035
3	3rd Year	40	0.035
4	4 th Year	40	0.035
5	5 th Year	40	0.035
	Total	200	0.175

16. **Manpower requirement:** Besides the direct and indirect employment to 33 persons, the company will provide vocational skill training to the unemployment youth of the neighbouring villages through outside agencies. Local villagers residing in the nearby villages shall be employed as semi-skilled workers.

17. **Project cost:** The estimated project cost is Rs 20 Lakhs. For EMP the budget is Rs. 2.26 lakhs as capital cost and Recurring cost of 1.766 lakhs. For Corporate Environmental responsibility budget allocated is Rs.40000/-. For Occupational health checkup a sum of Rs. 202000 had been allocated.

Budget for Environmental Protection

S.No	Particulars	Amount per Annum(INR)	
		Capital	Recurring Cost
1	Dust suppression	100000	100000
2	Plantation and its protection	100000	50000
3	Personal Protective Equipment	66000	66000
4	Environmental Monitoring	100000	100000
5	Budgetary for Tarpaulin @ Rs 2000/- (18*12)	20000	20000
6	Maintenance of the Road		100000

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	Total in INR	386000/-	436000/-
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18. **Environment Consultant:** The Environment consultant **M/s Cognizance Research India Pvt. Ltd** along with the proponent made a presentation on the proposal before the Committee on dtd. 03.03.2023.

19. The SEAC in its meeting dated **03.03.2023** decided to take 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.	Site photographs along with Geo-Tag photos along with Coordinates indicated the date of photos.	Site Photograph Attached as Annexure -I	Photographs attached.
2.	Clarification regarding mis-match of Plot no. in DSR and documents submitted online.	Due to some clerical mistake in DSR report, one plot no. was mentioned wrongly in Kerandi Sand Bed at page no. 09 as Plot no. 151 but the corrected Plot No. stand as 651, So please consider this proposal for grant of EC.	The PP has attached Corrected plot no. of DSR page 2.
3.	As per Sand Sustainable Guidelines, 2020, no mining should be allowed below water level. Brief note/justification on procedure mining of sand will be conducted as per guidelines.	The mining will developed in dry area only, no mining is proposed in waterlogged area. As per Sand Sustainable Guidelines, 2020, No mining should be allowed below water level, as our mining depth is restricted upto a depth of 2 meter from Surface, This will not intersect the ground water table, and every year Replenishment will take place.	To be added as specific condition.
4.	There is a mis-match in budget submitted for Environmental Protection and EMP budget in EIA and presentation. This shall be clarified.	The report is submitted with mentioning the EMP budget.	Submitted.

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

- a) Clarification regarding plot no. change in DSR is to be issued by the approving authority of the DSR. Such clarification duly certified by appropriate authority need to be submitted before recommendation of EC.

ITEM NO. 07

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR MULTISTORIED RESIDENTIAL BUILDING PROJECT B+S+16 (BLOCKS A& B) OF M/S EVOS BUILDCON PVT. LTD. OVER AN BUIL-UP AREA 34341.85 SQ.MT AT: MOUZA- JAGASARA, TAHASIL - JATNI, DIST- KHORDHA OF SRI KALINGA KESHARI RATH - EC

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1. This proposal is for Environmental Clearance of Multistoried Residential Building Project B+S+16 (Blocks A & B) of M/s Evos Buildcon Pvt. Ltd. over a built-up area 34341.85 Sq.mt At: Mouza- Jagasara, Tahasil - Jatni, Dist - Khordha of Sri Kalinga Keshari Rath.
2. **Category:** As per EIA Notification, 2006 and its subsequent amendments this proposed project falls under category B1 and activity 8 (a) - Building and Construction projects.
3. **Project details:** The proposed twin blocks project "Empire Twins" is a multistoried Residential Apartment Building comprising of 2 nos. (two) blocks which are of same configuration with B+S+16 Floors each over a total plot area of 6801.18 Sq.m or 1.681 Acres in favour of M/s Evos Buildcon Pvt. Ltd.
4. Approval from Bhubaneswar Development Authority, Bhubaneswar vide File No- BP-BDA- 2022-10-23-009644 has been applied to by the project proponent (applicant).
5. **Location and connectivity:** The proposed project site is located at Plot No - 580, 581, 582, 583, 599, 581/1308, 599/1134, Khata No- 229/1899 (old Khata No. 229/320), 229/893, 229/322, 229/1477 in Mouza- Jagasara, Tahasil - Jatni of Khordha district, Odisha. The proposed project site lies and covered in the Survey of India Topo sheet no. F45T11. The geographical coordinates of project site are Latitude 20° 16' 06.84" N to 20° 15' 07.67" N and Longitude 85° 43' 11.46" N to 85° 43' 13.84" E. The upcoming project site is located at a distance of 1.0 km from Mouza - Jagasara. Khordha is at a distance of 13.0 Km. NH-16 is at a distance of 3 km. Khordha Chandaka Road is at a distance of 3.2 km. Bhubaneswar town is located at a distance of 12.0 km. Biju Patnaik International Airport is at a distance of 10 km. Bhubaneswar Railway station is at a distance of 13.0 km. Bhubaneswar Fire Station is located at a distance of 8.7 km and Bhubaneswar govt. hospital is located at a distance of 10.8 km from the project site.

6. Built up area details:

Plot Area	: 6801.18 Sqm
Net Site Area	: 6799.80 Sqm
Total Proposed FAR Area	: 27099.52 Sqm
Covered Parking Area	: 7,242.33 Sqm
S.Pool Area	: 112.66 Sqm
Total Built-up Area	: 34341.85 Sqm
Total Green Area	: 1500 (22.06%) Sqm
Height of the Building	: 51.25 mts
No of Blocks	: A & B with 16 floors each.
No of Flats	: 176 (3BHK)

7. **Water requirement:** The source of water supply during operational phase will be borewells for which requisite approval from the CGWA has been applied for. The total water requirement for the proposed project is approx. 163 KLD, out of which total domestic water requirement is 147 KLD. The freshwater requirement is approx. 103 KLD. No Objection Certificate (NOC) for Ground Water Abstraction was obtained with NOC No. CGWA/NOC/INF/ORIG/2022/17056, valid from 17/11/2022 to 16/11/2027 for 97KLD.

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- 8. Wastewater Generation and Treatment:** The total domestic water requirement for this residential project will be 147 KLD and it is expected that the project will generate approx. 128 KLD of wastewater. The wastewater will be treated in onsite STP of 150 KLD capacity. The treated effluent will be reused for flushing, greenbelt and miscellaneous uses. Surplus treated effluent will be discharged to Recharge Trench.
- 9. Rainwater harvesting:** Rainwater harvesting has been catered to and designed as per the guideline of CGWA. Peak hourly rainfall has been considered as 140 mm/hr. The recharge pit of dimensions 1.5mx1.5mx2m (Liquid Depth) is constructed for recharging the water. 11 Nos. rainwater harvesting pits are being provided for run-off from the site.
- 10. Fire fighting details:** The height of the building is upto 51.25 mts. Fire Extinguisher, First Aid Hose Reel, Wet Riser, Yard Hydrant, Automatic Sprinkler System, Manually operated Electronic Fire Alarm System, Underground Static Water Tank including Water Curtain, Overhead Tank will be provided as safety measures in both the blocks. Internal road of 7.5 mt width has been demarcated for movement of fire vehicle
- 11. Solid waste generation:** During the operation phase, estimated quantity of the waste shall be approx. 626 kg per day. Garbage will be 607.5 Kg/Day in which Biodegradable Waste 364.5 Kg/Day @ 60% will be treated in In-house Organic Waste Converter and Non-Biodegradable waste 243 Kg/Day @ 40% will be sent to Authorized Vendors as per SWM Rules 2016. Landscape waste will be 0.074 Kg/Day. STP Sludge generation will be 17.9 Kg/day.
- 12. Power requirement in the project:** Electricity requirement for the apartment building will be 2060.11KW which will be supplied from TPCDOL. Out of the total electricity requirement 107.9 KW will be required for common area power load, common area light load and outdoor light and power. There will be electrical distribution transformers within the project site. DG Set of 2 Nos. of capacity 315 KVA has been proposed for the residential society to provide supply considering the critical loads for each application. Solar power generation is 103 KW from PV solar panels.
- 13. Parking details:** Parking required as per BDA is 25% of proposed F.A.R which is 25% of 27099.52 sqm i.e., 6774.80 sqm. In terms of ECS @ 32 sqm - 210 ECS. Parking area provided is 7,713.09 sqm (basement parking – 4714.74 sqm + stilt parking - 2527.59 sqm +open parking - 470.76 sqm) in terms of ECS @ 32/23 sqm which is 255 ECS.
- 14. Greenbelt:** Total green area measures 1500.0 m² (approx. 22.06% of the total plot area). Green Belt is 925.0 Sqm and Green Area is 575.0 Sqm. Evergreen tall and ornamental trees have been proposed to be planted inside the premises.
- 15. Project cost:** The estimated cost of the upcoming residential project is INR 72.0 Crores. EMP cost is 60 lakhs (capital) and recurring 17 lakhs. For environmental protection measures a amount of Rs.74 Lakhs as capital cost and Rs.24.5 Lakhs as recurring cost has been earmarked.
- 16. Environment Consultant:** The Environment consultant **M/s Right Source Industrial Solutions Pvt. Ltd.** along with the proponent made a presentation on the proposal before the Committee on dtd. 17.02.2023.
17. The SEAC in its meeting held on dated **17-02-2023** recommended the following:
 - A. **The proponent may be asked to submit the following for further processing of EC application:**

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- i) Land schedule and Kisam of land.
- ii) Traffic study report and get vetted from reputed institute.
- iii) Recalculate RWH by taking maximum rainfall into account.
- iv) Drain connectivity and discharge point.
- v) Break up calculation for solar power generation, consumption, roof top capacity, percentage contribute to power demand.
- vi) Status of permission from Airport Authority about building height.
- vii) Green belt is observed to be 13% and needs to be revised to meet the norm and revised plan/layout to be submitted
- viii) Permission from appropriate authority for discharge of treated water to be provided.

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

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

18. The proposed site was visited by the sub-committee of SEAC on 29.03.2023. Following are the observations of the sub-committee:

- a) PP and Consultant were present along with other team members.
- b) It was observed that the site is adjacent to a 40 ft. road.
- c) The site was clean and no construction work carried out.
- d) PP explained that as per plan the project will be of ZLD. However, rain water and excess treated water if any shall be allowed to fall in an existing Nallah through a drain to be constructed by them. Since the road is a private road, necessary POA to be taken from the land owner for constructing the drain. Any portion of drain if on Govt road, required permission also to be taken from the appropriate authority (BDA/BMC) (Conditions to be stipulated)
- e) A Nallah was seen at a distance from the site. Permission to allow water as at d) above to be also taken from the appropriate authority (Conditions to be stipulated)
- f) Trees are to be planted to comply green belt requirement.
- g) Documents asked during presentation needs to be submitted.

19. 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.	Land schedule and Kisam of land.	Plot No – 580,581,582,583,599,	submitted

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		581/1308,599/1134, Khata No – 229/320,229/893, 229/322, 229/1477, Mouza – Jagasara, Tahasil – Jatni, District – Khordha, Odisha. Attached Land documents as Annexure – I.	
2.	Traffic study report and get vetted from reputed institute.	Traffic study Report was vetted by School of Civil Engineering KIIT Deemed to be University, Bhubaneswar. Attached Land documents Annexure – II.	Present Traffic is categorized under LOS is 'A', After 10 years, with/without project the LOS will be 'B' as vetted by School of Civil Engineering KIIT Deemed to be University, Bhubaneswar.
3.	Recalculate RWH by taking maximum rainfall into account.	8 No's of Rain Water Harvesting pits area being proposed for artificial rain water recharge within the project premises. Calculation attached as Annexure –III.	8 No's of Rain Water Harvesting pits has been proposed taking account peak rainfall intensity of 0.140m/hr.
4.	Drain connectivity and discharge point.	The drainage connectivity and discharge point layout attached as Annexure –IV. Drainage network will be developed by the Project Proponent.	Drainage map submitted.
5.	Break up calculation for solar power generation, consumption, roof top capacity, percentage contribute to power demand.	Solar Power utilization will be 7.1% The details are attached as Annexure –V.	Solar power consumption and total power usage is given. However, Break up calculation for solar power generation is not submitted.
6.	Status of permission from Airport Authority about building height.	NOC ID: BHUB/EAST/B/102922/723896 NOC from AAI was obtained on 15.11.2023 valid upto 14.11.2030 Attached as Annexure – VI.	submitted
7.	Green belt is observed to be 13%	Not submitted	Not submitted

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	and needs to be revised to meet the norm and revised plan/layout to be submitted		
8.	Permission from appropriate authority for discharge of treated water to be provided	Not submitted	Not submitted

After detailed discussion, the SEAC decided to take decision on the proposal after receipt of the following information / documents from the proponent:

- b) Break up calculation for solar power generation, consumption, roof top capacity, percentage contribute to power demand.
- c) Green belt is observed to be 13% and needs to be revised to meet the norm and revised plan/layout to be submitted.
- d) Permission from appropriate authority for discharge of treated water to be provided.
- e) Document with respect to POA from the land owner for constructing the drain (if it is passing through private land) and if through Govt. road, required permission from the appropriate authority (BDA/BMC etc) May be submitted as suggested during site visit.
- f) A Nallah was seen at a distance from the site. Permission to allow water as above from the appropriate authority (if obtained or applied) to be submitted.

ITEM NO. 08

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S UTKAL ENVIROCARE FOR COMMON BIO-MEDICAL WASTE TREATMENT & DISPOSAL FACILITY OVER AN AREA 1.5 ACRE (0.60 HA) LOCATED AT KHATA NO-81/17, PLOT NO-15, MOUZA-BALIBAD, TEHSIL-SORO, DISTRICT-BALASORE OF SRI GANESH PRASAD SWAIN – EC.

1. This proposal is for Environmental Clearance of M/s Utkal Envirocare for Common Bio-medical Waste Treatment & disposal facility over an area 1.5 Acre (0.60 Ha) located at Khata No-81/17, Plot No-15, Mouza-Balibad, Tehsil- Soro, District- Balasore of Sri Ganesh Prasad Swain.
2. **Category:** The project falls under schedule 7 (da) “Biomedical Waste Treatment Facility” Category-B as per the EIA notifications, 2006 amendments dated 17th April, 2015.
3. **Project details:** M/s Utkal Envirocare has proposed for development of Common Bio- Medical Waste Treatment Facility at Khata No-81/17, Plot No-15, Mouza- Balibad, Tehsil- Soro, District- Balasore, Odisha for handling & disposal of Bio medical waste generated within a radius of 150 Km. The proposed CBWTF unit consist of Incinerator, Autoclave, Shredder and Effluent treatment unit. The Incinerator with proper Air Pollution Control Device (APCD) with a capacity of 200 Kg/hr or 3.2 TPD, 2 Nos of Autoclave with a capacity of 125 Kg/hr or 2 TPD, Shredder with a capacity of 125kg/hr or 2 TPD and ETP – 15KLD. The objective for the proposed project is to establish an Integrated Common Bio-medical Waste Treatment facility to handle 300 kg/hr or say 5.2 TPD of Bio-medical waste.
4. **ToR details:** Terms of Reference (ToRs) was issued by SEIAA, Odisha vide letter no. 4129/SEIAA dtd. 02.03.2022.

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5. **Location and Connectivity:** The Project is proposed to be located at Khata No-81/17, Plot No-15, Mouza-Balibad, Tehsil- Soro, District-Balasore, Odisha. The project site is bounded by geo-coordinates Latitude 21°18'51.04"N and Longitude 86°40'54.72"E bearing Toposheet No F45O11. The nearest Highway is NH-16 is at 2.2 Km towards SE of the Project Site which is connected to the site via approach road of 0.2 Km known as Bagudi road. The nearest railway station is Soro railway station at 2.6 km towards SSE from the project site. Nearest airport is Biju Patnaik International Airport at 148 km, SW from the project site. Nearest river is Pitakalia at 8km. Nearest habitation are Balibad – 1.2 km.
6. There is Kuldiha Wildlife Sanctuary at 5.5 km from project site and there is no other national park or bird sanctuary within 10 km radius of the project site. The Kuldiha Wildlife Sanctuary has notified Eco-sensitive zone vide SO 2539(E) dtd 9th August 2017.
7. NOC from D.F.O has been obtained vide letter no. 10978/3F – Lease F. No. 09/2021 Dated. 30/12/2021 mentioning that the proposed project is outside the Eco Sensitive Zone of Kuldiha Wild Life Sanctuary at a distance of more than 3 Km.
8. **Public hearing details:** The public hearing for the proposed Greenfield Project for Installation of Common Bio-medical Waste Treatment & disposal facility was conducted on 12.10.2022 at 10.30 AM at Nuapur- Dahipur Melanpodia, Mouza - Dahipur, PO - Radhabalrampur, Tahasil- Soro, District - Balasore. Issues raised during the public hearing were smell due to storage and reprocessing of Bio-medical wastes by the project, apprehension on generation of Methane gas from the unit during storage for the longer period, discharge of effluent from the project site and contaminating the nearby water bodies used by the local people, human settlement present near the proposed project site and providing employment to local people. A total amount of Rs. 2.6 Lakh would be utilized for CER program. Budget allocated for the action plan of the public hearing is Rs. 22.15 lakhs.
9. **Land-use:** The total land, acquired for the facility is 6070.28 Sq.m (1.5 acre). The land use breakup of the proposed facility is as following

S. No.	Facilities	Area (Sq.m)
1.	Plant Facilities (Waste storage rooms, autoclave, incinerator, shredder etc.)	437.06
2.	Administrative and auxiliary facilities	157.83
3.	Rain Water Harvesting Pond	898.40
4.	ETP	700.11
5.	Vehicle Wash	98.29
6.	Green Belt area	2015.33
7.	Parking	178.06
8.	Internal roads	1189.78

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9.	Miscellaneous	295.42
	Total	6070.28

10. **Baseline details:** The baseline study was conducted during 1st March 2022 to 31st May 2022 during Pre-monsoon season. Following results have been obtained.

- a) Respirable Particulate Matter PM₁₀: Maximum value - 85.7µg/m³ and minimum value - 53.9µg/m³. The average values to be in the range of 71.9 to 78 µg/m³ and the 98% tile were observed by in the range of 79.7 to 85.7µg/m³.
- b) Particulate Matter (PM_{2.5}): Maximum value - 48.7µg/m³ and minimum value - 31.2µg/m³. The average values to be in the range of 39.2 to 42.9µg/m³ and the 98% tile was observed by in the range of 45.6 to 48.5µg/m³.
- c) Oxides of Nitrogen (NO₂): Maximum concentration of NO₂ - 18.4 µg/m³ and minimum value - 9.5 µg/m³ observed. The average values to be in the range of 12.4 to 14.5 µg/m³ and the 98% tile was observed by in the range of 16.3 to 18.3 µg/m³.
- d) Sulphur Dioxide (SO₂): Maximum concentration of SO₂ - 9.6 µg/m³ and minimum value -5.1 µg/m³. The average values to be in the range of 6.5 to 8µg/m³ and the 98% tile was observed by in the range of 7.6 to 9.6 µg/m³.
- e) Carbon Monoxide (CO): Maximum concentration of CO is observed to be 510 µg/m³ and minimum value of 200 µg/m³. The average values to be in the range of 331 to 418 µg/m³ and the 98% tile was observed by in the range of 450 to 510 µg/m³.
- f) Ground Water Quality: The pH values observed were in the range of 7.72 to 8.08; with total dissolved solid ranging from 620 mg/l to 7 8 0 mg/l. Total Hardness was in the range of 258 mg/l to 300 mg/l. The concentration of alkalinity was in the range of 246 to 290 mg/l.
- g) Surface Water Quality: The pH values observed were in the range of 7.52 to 7.83 with total dissolved solids in the range of 356 mg/l to 510 mg/l. BOD were observed less than 3.1 mg/l. Chloride varied between 84 mg/l & 160 mg/l. Sulphates varied from 16 to 23 mg/l, Nitrate varied from less than 0.8 to 2.2 mg/l.
- h) Soil: It has been observed that the pH of the soil ranged from 7.77 to 7.98 indicating that the soils are slightly alkaline to moderately alkaline in nature. The electrical conductivity was observed to be in the range of 169 to 190 µS/cm. The nitrogen concentrations are in the range of 40 to 56 mg/kg. The phosphorous concentrations are in the range from 2.8 to 3.7 mg/kg.

11. **Flora and Fauna:** No Schedule- I type fauna is found in the study area. No wildlife is found in the study area. No threatened, rare, or endangered plant species are found in the study area. There is elephant corridor within study area where the movement of Elephant has been observed. The Forest department has made barricading in Gangajal Ghati (Protected Forest). The elephant corridor is situated on another side of Damodar River in South at approx. 8 km w.r.t project site.

12. **Water Requirement:** Total water requirement will be 21 KLD out of which 13 KLD will be fresh water which will be sourced from the Soro Block via Pipeline and rest 8 KLD will be reused after proper treatment.

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S. No	Unit Process	Quantity of Water Used (KLD)	Remark
1	Process Water (Autoclave & other process)	9.0	
2	Domestic Purposes	3.0	
3	Green belt	6.0	Recycled -6.0 KLD
4	Vehicle & Floor Washing	3.0	Recycled water -2.0 KLD + Fresh water -1 KLD
	TOTAL	21.0	
	Total fresh water	13.0	
	Total recycled water	8.0	

13. **ETP:** An ETP of 15 KLD capacity will be established to treat the scrubbed water, floor washings and other wastewater from the plant and recirculate the treated water into the scrubber (APCD) as well as utilize in the greenbelt development making the system as zero discharge system.
14. **Power Requirement:** The power required for the facility is 100 KW and will be procured from nearest grid. For emergency backup, a 1 DG set (100 KVA) is proposed.
15. **Fuel Requirement:** Diesel which will be used as fuel for incinerator will be stored at the premises. Total quantity of 432 Lit/day will be required and will be stored with storage capacity of 500 liters.
16. **Greenbelt:** A three tier canopy green belt will be developed with flowering species to abate dust, noise, and odour and to increase the aesthetic value. The green belt will cover 33.19% of the total project area i.e., 2015.28 sqm (0.498 acres). About 350 numbers of saplings are recommended for developing the green belt to abate dust, noise, odour, and soil erosion.
17. **Traffic study:** The LOS study shows that the present traffic scenario is "Excellent", and the free flow of vehicles is observed during the study period. Due to the proposed project the traffic density will increase as all the biomedical waste will be transported through the road under study. The traffic conditions through V/C ratio does not change even after the proposed traffic load.
18. **Required Manpower:** 48 persons are proposed to hire for the manpower requirement including skilled and unskilled for the proposed project during operational phase.

Sr. No.	Details	Manpower
1.	Management /Skilled	6
2.	Business Development	5
3.	Management /Skilled	6
4.	Semi-Skilled/supervisory staff	6
5.	Unskilled	8
6.	Drivers	7
7.	Helpers	7
8.	Security	3
	Total	48

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Environmental Scientist, SEAC

19. **Project cost:** The cost of the project is Rs 2.60 Crores approximately. Cost towards environmental mitigation measures allocated is Rs. 35.50 lakhs as capital investment and recurring cost of Rs 8.75 lakhs per annum.

S. No.	Particulars	Capital Cost (Rs. in lakh)	Recurring Cost (Rs. In lakhs/ annum)
1	Air Pollution Control Systems wet scrubber etc.	6.0	1.5
2	Effluent treatment plant	5.0	1.0
3	odor management etc.	1.15	0.5
4	Noise Control measures – Acoustic enclosures for DG set, Noise barriers for pumps, boiler, etc.	2.5	0.50
5	Landscaping, Greenbelt development	1.85	1.0
6	Rainwater harvesting, storm water drains	1.5	0.25
7	Online Stack monitoring	10	1.0
8	Ambient Air quality monitoring/ stack monitoring	-	2.5
9	Disposal to Secured Land Fill operator	2.5	0.5
10	CER	5.0	-
Total		35.5	8.75

20. **Environment Consultant:** The Environment consultant **M/s Grass Roots Research & Creation India (P) Ltd., Noida** along with the proponent made a presentation on the proposal before the Committee.

21. The SEAC in its meeting held on dated **12-04-2023** 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
i)	Power of attorney from private land owners with supporting documents for road connectivity to the main road from the project site.	Our project site, located at Khata No – 81/17, Plot No – 15, Mauza- Balibad, Tehsil – Soro, Distirct – Balasore. The site direct connectivity with the main road which is a government road. Therefore, PoA is not required to be made with any Private land owner for road connectivity. Revenue Map showing connectivity of the project site to main government road is attached as Annexure – I .	complied
ii)	An undertaking that Natural Drain is not passing through the project site land supported by revenue map. If the natural drain is passing, then submission of undertaking that the part of land covering the natural	No natural drain is passing through the project site. Revenue map showing project site is attached as Annexure – II .	complied

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Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	drain in the project area should not be disturbed in any sort of activity.	An undertaking in this regard is attached as Annexure – III .	
iii)	Supporting documents along with letter of Land conversion along with Kisam of land.	The application for change in land use has been submitted vide application No. 2021010500610 dated 02.11.2021. Copy of CLU application is attached as Annexure – IV .	complied
iv)	A detailed note on the preventive measures that should be taken in case of cyclone and Disaster Management Plan to avoid contamination (types of pollutants expected, covered area for the waste storage according to the minimum storage hour i.e., 24 hours, no operation during the cyclone, discharge of flood water and extra covered storage place).	Disaster Management Plan is attached as Annexure – V .	complied
v)	Site elevation should be done with respect to the surroundings for ease of drainage.	There is no river within 5.0 km radius of the project site. A natural drain is present near the project site in South direction. The site elevation will be kept at 1.5m higher level from surroundings.	complied
vi)	In case of failure of incinerator, details of arrangement for storage of waste till the incinerator is functional.	Adequate space is available for storage of waste. Details of arrangement for storage of waste during failure of incinerator are attached as Annexure – VI .	complied

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Grass Roots Research & Creation India (P) Ltd., Noida** on behalf of the project proponent, the SEAC recommended for grant of Environmental Clearance for the project valid for a period of 10 years with stipulated conditions as per **Annexure – C**.


Member Secretary, SEAC

Proceedings of the SEAC meeting held on 12.07.2023 (Old proposals – compliance received)

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.

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 in 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	

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S UTKAL ENVIROCARE FOR COMMON BIO-MEDICAL WASTE TREATMENT & DISPOSAL FACILITY OVER AN AREA 1.5 ACRE (0.60 HA) LOCATED AT KHATA NO-81/17, PLOT NO-15, MOUZA-BALIBAD, TEHSIL- SORO, DISTRICT-BALASORE OF SRI GANESH PRASAD SWAIN – EC.

A. SPECIFIC CONDITION:

1. All the recommendations, mitigation measures, environmental protection measures and safeguards proposed in the EIA report of the project submitted by project proponent vide commitments made during presentation before SEAC and proposed in the EIA report shall be strictly adhered to in letter and spirit.
2. The unit shall strictly comply with the CPCB guidelines for setting up the Common Bio-Medical Waste Treatment Facility. (CBWTF)
3. Proponent shall strictly comply the design criteria for incinerator, autoclave, shredder and all other requirements including bar-coding etc. as per the CPCB guidelines.
4. The unit shall strictly setup the dry technology system.
5. The unit shall strictly ensure mercury waste management at health care facility as per the CPCB guidelines.
6. The unit shall establish Standard operating Procedure for waste collection, handing transportation, treatment and disposal as per Biomedical Waste Management Rules 2016.
7. Zero Liquid Discharge (ZLD) status shall be maintained all the time.
8. There shall be no drainage connections from the treatment shed.
9. **Proper arrangements to be made for storm water drainage.**

B. CONSTRUCTION PHASE

10. Water demand during construction shall be reduced by use of curing agents, super plasticizers and other best construction practices.
11. Project proponent shall ensure that surrounding environment shall not be affected due to construction activity.
12. Construction materials shall be covered during transportation and regular water sprinkling shall be done in vulnerable areas for controlling fugitive emission.
13. All required sanitary and hygienic measures shall be provided before starting the construction activities and to be maintained throughout the construction phase.
14. First Aid Box shall be made readily available in adequate quantity at all times.
15. The Project proponent shall strictly comply with the building and other construction workers (Regulation of Employment) & conditions made there under and their subsequent amendments. Local bye laws of concern Authority shall be complied in letter and spirit.

16. Ambient noise levels shall conform to residential standard both during day and night. Incremental pollution load on the ambient air & noise quality shall closely be monitored during construction phase.
17. Use of Diesel Generator (DG) sets during construction phase shall be strictly equipped with acoustic enclosure and shall conform to the EPA rules for air and noise emission standards.
18. Safe disposal of sewage and solid wastes generated during the construction phase shall be ensured.
19. All top soil excavated during construction activity shall be used in horticultural/ landscape development within the project site.
20. Excavated earth to be generated during the construction phase shall be utilized within the premises to the maximum extent possible and balance quality of excavated earth shall be disposed off with the approval of the competent authority after taking the necessary precautions of general safety and health aspects. Disposal of the excavated earth during construction phase shall create adverse effect on neighboring communities.
21. PP shall ensure use of eco-friendly building materials including fly ash bricks, fly ash paver blocks, ready Mix concrete (RMC) and lead-free paints in the project.
22. Fly ash be used in the construction wherever applicable as per provisions of fly ash Notification under the EP Act, 1986 and its subsequent amendments from time to time, regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to all surroundings.

C. OPERATION PHASE:

23. Consent to operate shall be obtained from OSPCB under the Air (Prevention & control of Pollution) Act, 1981 and Water (Prevention & control of Pollution) Act 1974 before operation, failing which the Environment Clearance herein shall be deemed to be withdrawn.
24. Authorization from State Pollution Control Board, Odisha shall be obtained as applicable under Bio Medical Waste Management Rules 2016 and its subsequent amendments from time to time.
25. The Biomedical wastes shall be managed in accordance and compliance with the Bio medical waste Management Rules 2016 and its subsequent amendments from time to time.
26. Incinerated ash, used oil, sludge, treated biomedical waste and ETP sludge should be disposed in accordance with BMW Rules, 2016/ Hazardous and other Waste (Management & Transboundary Movement) Rules 2016 and its subsequent amendments issued from, time to time.
27. The PP shall comply with the Environmental standards notified by MOEF& CC for incinerators along with the technology/guidelines.
28. Guidelines published the Central pollution Control board from time to time for common bio medical waste treatment published shall be referred for implementation.

29. There should not be any spillage from the transportation vehicles.
30. The PP will set up separate environmental management cell for effective implementation of stipulated environmental safeguards under the supervision of Senior Executive.
31. All the recommendations of EMP shall be strictly complied.
32. The environmental safeguards containing the EIA report shall be implemented in letter & spirit.
33. Necessary provision shall be made for firefighting facilities within the complex.
34. Treated flue gas emissions discharged through stack to atmosphere shall always be less than the specific emission standards.
35. PP shall ensure regular operation and maintenance of the ETP and printed logbook shall be maintained.
36. All the pipelines carrying water/waste water should be distinguished using colour coding on raw water pipes and re use lines of treated water.
37. Utilization of Diesel power generating sets is subject to power failure condition only. The DG sets proposed as a source of power back up during operation phase should be of enclosed type, low sulphur diesel run and confirm to rules made under the Environment (Protection) Act, 1986. The DG sets should be subjected to periodic noise and stack monitoring.
38. Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.
39. Energy conservation measures such as LED light for common lighting of areas, signage etc should be adopted.
40. The unit shall develop 33% of plot area (including existing green belt) as a green belt within premises as per the CPCB guidelines.
41. Total water requirements for the project shall not exceed 09 KL/day. Unit shall reuse treated waste water for lime slurry preparation for quenching process as well as floor and vehicle washing to the maximum extent. Hence, fresh water requirement shall not exceed 09 KL/day and it shall be met through PWD water supply only. Prior permission from the concerned authority shall be obtained for withdrawal of water.
42. Water meter shall be installed and its record of daily water consumptions shall be maintained.
43. The industrial effluent generation from the project shall not exceed 08 KL/day.
44. Waste water generation from floor washing, vehicle washing, domestic waste water and autoclaving (08 KL/day) shall be treated in proposed ETP. (Cap.10.0 KL/Day).
45. Entire quantity of treated waste water shall be reused for individual purpose within the premises after conforming the (OSPCB) norms.
46. The unit shall provide adequate effluent treatment plant (ETP) comprises of Primary, tertiary treatment plants and operated regularly and efficiently so as to ensure for quenching process.

47. Separate energy meter shall be provided at ETP. A proper operation logbook of the ETP containing records of quantities and qualities of treated effluent.
48. The Zero Liquid Discharge (ZLD) condition to be achieved with utilizing treated effluent for lime slurry preparation for spraying in reactor for quenching process as well as floor and vehicle washing.
49. The Project proponent shall provide electromagnetic flow meter at the inlet & outlet of the water supply, Inlet & Outlet of the ETP and shall maintain a record of readings of each such meter on daily basis.
50. The quantity of fresh water usage and water recycling shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the OSPCB, State Level Environment Impact Assessment Authority & Regional Office, MoEF& CC along with six monthly monitoring reports.

D. AIR:

51. Unit shall provide Lime Reactor, Air cooled gas cooler, Sodium Carbonate injection, Activated carbon injection system and Bag Filter with adequate stack height as APCM within incinerator as per the CPCB and relevant guidelines.
52. Regular monitoring of ground level concentration of PM10, PM2.5, NOx and CO shall be carried out at the site and downwind direction and its records shall be maintained. Ambient air quality levels shall not exceed the standards stipulated by the CPCB. If at any stage these levels are found to exceed the prescribed limits, necessary additional/control measures shall be taken immediately.
53. Proponent shall strictly follow the odour control measures as suggested in Environmental Management Plan.
54. Proponent shall strictly follow the Environmental Monitoring Program (EMP) for ambient Air Quality Monitoring (AAQM).
55. Treated flue gas emissions discharged through stack to atmosphere shall always be less than CPCB/OSPCB stipulated emission standards.
56. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution and shall conform to the EPA Rules for air and noise emission standards.
57. A green belt shall be developed all around the plant boundary and also along the roads to mitigate fugitive and transport dust emission.

E. WASTE MANAGEMENT:

58. The company shall strictly comply with the rule and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous and Other wastes (Management and Trans boundary Movement) Rules 2016, as may be amended from time to time. Authorization of the OSPCB shall be obtained for collection/treatment/storage/disposal of hazardous wastes.
59. Hazardous wastes shall be dried, packed and stored in separate designated hazardous waste storage facility with concrete flooring and leachate collection facility, before its disposal and handled as per the Hazardous Waste Rules 2016.

60. Incinerator Ash, ETP sludge & sludge shall be disposed in accordance with BMW Rules, 2016/ Hazardous and other Waste (Management & Transboundary Movement) Rules 2016 and its subsequent amendments issued from time to time.
61. Treated Biomedical plastic waste shall be sold out to OSPCB Authorized Recyclers only.
62. Used oil shall be either reused for lubrication in plant machineries or sold out to OSPCB registered/ Authorized Recyclers.
63. Discarded container/bags shall be either reused or sold only to OSPCB Authorized Recyclers.
64. Treated glass waste shall be sold out to OSPCB Authorized Recyclers only.
65. Sharp waste shall be disposed through in-house designated concrete sharp pit or as per the BMW Rules, 2016 and its amendments issued from time to time.
66. Trucks/Tankers used for transportation of hazardous waste shall be in accordance with the provisions under the Motor Vehicle Act, 2019 and rules made there under.
67. The design of the Trucks/tankers shall be such that there is no spillage during transportation.
68. All possible efforts shall be made for Co-Processing of the Hazardous waste prior to disposal into TSD/CHWTF.
69. Management of fly ash (If any) shall be as per the Fly ash Notification 2009 & its amendment time to time and it shall be ensured that there is 100% utilization of fly ash to be generated from the unit.

F. SAFETY:

70. The occupier/Plant Manger shall strictly comply with the provisions under the Factories Act and other relevant State laws.
71. The project authorities shall strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules (MSIHC) 1989, as amended time to time and the Public Liability Insurance Act for handling of hazardous chemicals etc. Necessary approvals from the Chief Controller of Explosives and concerned Govt. Authorities shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans have to be prepared and implemented.
72. Sufficient peripheral open passage shall be kept in the margin area for free movement of fire tender/emergency vehicle around the premises.
73. Sufficient number of fire extinguishers shall be provided near the plant and storage area.
74. All necessary precautionary measures shall be taken to avoid any kind of accident during loading, unloading and transportation of biomedical waste.
75. The project management shall ensure to comply with all the environment protection measures, risk mitigation measures and safeguards mentioned in the Risk Assessment report.
76. Only flame proof electrical fittings shall be provided in the plant premises.
77. All the waste storage room shall be marked with colour coding as per the CPCB guidelines

time to time.

78. Proponent shall tie up with nearby health care facility for any emergency cases.
79. Personal Protective equipment's (PPEs) shall be provided to workers and its usage shall be ensured and supervised.
80. First Aid Box in the unit shall be made readily available in adequate quantity.
81. Training shall be imparted to all the workers on safety and health aspects of biomedical waste handling.
82. Occupational health surveillance of the workers shall be done and its records shall be maintained. Pre-employment and periodical medical examination for all the workers shall be undertaken as per the Factories Act & Rules.
83. Transportation of biomedical waste shall be done as per the provisions of the Motor Vehicle Act & Rules.
84. The company shall implement all preventive and mitigation measures suggested in the Risk Assessment Report.

G. NOISE:

85. The Overall noise level in and around the plant area shall be kept well within the standards by providing noise control measures including engineering controls like acoustic insulation hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise level shall conform to the standards prescribed under The Environment (Protection) Act, 1986 & Rules.

H. GREEN BELT AND OTHER PLANTATION:

86. The Unit shall develop green belt within premises as per the CPCB guidelines.
87. Drip irrigation/low-angle sprinkler system shall be used for the green belt development within the premises.
88. The area earmarked as green area shall be used only for plantation and shall not be altered for any other purpose.

I. OTHER CONDITIONS

89. Rain water recharging of surface as well as rooftop runoff shall be undertaken and the same water shall be used for the various activities of the project to conserve fresh water as well as to recharge ground water. Before recharging the surface runoff, pre-treatment must be done to remove suspended matter.
90. All the commitments and undertakings given to the SEAC during the appraisal process for the purpose of Environmental Protection and Management shall be strictly adhered to.
91. The project proponent shall also comply with any additional condition that may be imposed by the SEAC or the SEIAA or any other competent authority for the purpose for the environmental protection and management.
92. In the event of failure of any pollution control system adopted by the unit, the unit shall be safely closed and shall not be restarted until the desired efficiency of the control equipment has been achieved.

93. The project authorities must strictly adhere to the stipulations made by the Odisha State Pollution Control Board (OSPCB), State Government and any Statutory Authority.
94. During biomedical waste unloading there shall be no spillages and garland drain shall be constructed to avoid mixing of accidental spillages with domestic wastewater or storm water.
95. Industrial Grade flooring with impervious layer shall be provided in the work areas, biomedical waste storage areas and chemical handling areas to minimize soil contamination.
96. Renewable power/ solar/wind / hybrid shall be installed within the premises and on the roof area of the administrative part of the building (around 5%).
97. No further expansion or modifications in the plant likely to cause environmental impacts shall be carried out without obtaining prior environmental Clearance from the concerned Authority.
98. The above conditions will be enforced, inter-alia under the provisions of water (Prevention & Control of Pollution) Act 1974, air (Prevention & Control of Pollution) Act 1981, the Environment Protection Act 1986, Hazardous & other Wastes (Management & Transboundary Movement Rules, 2016 and the Public Liability Insurance Act 1991 along with their amendments and rule.
99. The Project management shall ensure that the unit complies with all the environmental protection measures, risk mitigation measures and safeguards recommended in the EMP report and Risk assessment study report as well as proposed by project Proponent.
100. Further this EC is issued without prejudice to the action initiated in the Environment (*Protection*) Act or any court case pending in the court of law. As such, it does not mean that the PP has not violated any environmental laws in the past and whatever decision under the said Act by the Hon'ble Court will be binding on the PP. **Hence, this environmental clearance does not give immunity to the PP in the case complaint is filed against, if any, or action initiated under the said Act.**
101. In case of submission of false document and non-compliance to any of the stipulated conditions, this Authority will revoke or suspend the EC without any intimation and initiate appropriate legal action under the Environment (*Protection*) Act, 1986 (*as amended till date*).
102. E-waste generated in the complex should be managed as per CPCB guidelines on E-waste management Rules 2016.
103. The SEIAA, Odisha reserves their right to add any stringent condition or to revoke the environmental clearance, if conditions stipulated above are not implemented to the satisfaction of the Authority or for that matter, for any other administrative reasons.
104. **In addition**, the following conditions shall be specifically complied with:
 - (i) Project proponent shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the Odia language within **seven days** of receipt of this communication, informing that the proposed project has been accorded prior Environmental Clearance (EC) and the copies of the clearance letter will be available on the PP website.

- (ii) Validity of the Environmental Clearance (EC) accorded shall be for a period of 07 (seven) years from the date of its issue.
- (iii) These stipulations would be enforced among others under the provisions of 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 EIA Notification, 2006.
- (iv) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by State Environment Impact Assessment Authority.
- (v) Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.
- (vi) Any appeal against this prior environmental clearance shall lie with the National Green Tribunal (NGT), if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010 (Central Act 19 of 2010).