PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE, ODISHA HELD ON 03RD JULY, 2024

The SEAC met on 03rd July, 2024 at 04:00 PM by Virtual mode (VC) through video conferencing in Google Meet under the Chairmanship of Sri Shashi Paul. The following members were present in the meeting.

1.	Sri Shashi Paul	-	Chairman (through VC)
2.	Dr. K. Murugesan	-	Member Secretary
3.	Dr. Chittaranjan Panda	-	Member (through VC)
4.	Prof. (Dr.) H.B. Sahu	-	Member (through VC)
5.	Sri Jayant Das	-	Member (through VC)
6.	Er. Fakir Mohan Panigrahi	-	Member (through VC)
7.	Prof. (Dr.) B.K. Satapathy	-	Member (through VC)
8.	Dr. K.C.S Panigrahi	-	Member (through VC)
9.	Prof. (Dr.) Abanti Sahoo	-	Member (through VC)
10.	Dr. Ashok Kumar Sahu	-	Member (through VC)
11.	Dr. Rabinarayan Patra	-	Member (through VC)
12.	Er. Kumud Ranjan Acharya	-	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 PAIKADAKULGUDA SEMI PRECIOUS STONE CAT'S EYE MINES OVER AN AREA OF 38.316 HA OR 94.68 ACRES IN VILLAGE- PAIKADAKULGUDA, KANDHADAKULGUDA AND BADOLIMA, TAHASIL/PS-BISSAM CUTTACK DISTRICT- RAYAGADA OF SRI BAJARANG LAL GUPTA - EC

1. This proposal is for Environmental Clearance of Paikadakulguda Semi Precious Stone Cat's Eye Mines over an area of 38.316 Ha or 94.68 acres in village- Paikadakulguda, Kandhadakulguda and Badolima, Tahasil/PS-Bissam Cuttack District- Rayagada of Sri Bajarang Lal Gupta.
2. **Category:** As per the EIA notification 2006 and its subsequent amendments, proposed project falls in category B under schedule of Item 1(a)-Mining of minerals.
3. Mining lease over an area of 41.485 hectares has been granted for a period of fifty (50) years vide letter No.**254/SM**, Bhubaneswar dated 07.01.2017. However, extent of the M.L area over 41.485 hectares has been reduced finally to 38.316 hectares as per the letter dated 05.05.2021.

4. The Mining Plan along with PMCP was approved by Directorate of Mines & Geology, Steel & Mines Department, Govt. of Odisha, Bhubaneswar vide letter no. MPM/A/07-ORI/BHU/2021-22 dated 04.08.2021.
5. **As it is a scheduled mineral (Cat's eye) under the Mines and Minerals (Development and Regulation) Amendment Act, 2023, DSR has not been prepared.**
6. Cat's eye is a mineral of beryllium known as chrysoberyl and is listed under Part D of the first schedule as well as seventh schedule of the Mines and Minerals (Development and Regulation) Amendment Act, 2023.
7. **TOR details**: Terms of Reference (TOR) is issued by SEIAA, Odisha Vide letter no: 4223/SEIAA dated 15.03.2022.
8. **Public hearing details:** The Public Hearing meeting held on 20.07.2023 at 11.00 a.m. in Paikadakulguda village under Bissam Cuttack Tahasil of Rayagada District, Odisha. Issues raised during public hearing are regarding provision of health facilities, peripheral development of the village including road development, drinking water facility & other developmental work. A cost of Rs. 18.40 Lakhs has been allocated for implementation of activities proposed during public hearing.
9. **Location and connectivity**: The project site of Paikadakulguda Semi Precious Stone Cat's Eye Mines is located in village, Paikadakulguda, Kandhadakulguda and Badolima, District-Rayagada. The project site is located in Toposheet. No 65 M/10 and latitudes varies from 19°34'07.80" N to 19°34'38.71" N and longitudes varies from 83°31'59.41" E to 83°32'29.07" E as per geodetic survey.Out of total area 28.899 Ha. of land is waste land (Pahad, Dangar, Patharbani & Patita), 0.202Ha. of land is under Agricultural Field (Dhana-II) and rest 9.215 comes under Dhoda & Basti Jogya land. Mining area is accessible from Muniguda, covering a distance of 5 km. It lies on the Bhawanipatna-Bissam Cuttack road. Bhawanipatna is the nearest head quarter and Bissam Cuttack nearer Tahasil situated at a distance 54 km and 8 km respectively south of Muniguda. The Nearest railway station is at Muniguda on the Raipur- Vizianagaram South East Railway. Kotagarh Elephant Reserve is situated 25km distance from the lease area.
10. **Total Reserves and proposed production**: As estimated, Mineable Reserve is 304 Kg; Indicated Resources is 211 Kg; Inferred Resources is 93Kg and total production is 40Kg per Annum.
11. **Mining method**: Opencast semi-mechanized method of mining will be adopted in the M.L area on single shift basis with deployment of machines like 100mm dia DTH drill, 0.9m^3 capacity excavator, 10T capacity tippers etc. Overburden will be excavated & loaded by the excavator and transported through 10 t capacity truck / tippers to the dumping site. Cat's Eye bearing pegmatite will be transported to the Cat's Eye sorting & picking yard where rock mass will be broken, if necessary and a part of Cat's Eye will be picked up & sorted manually. Remaining Cat's Eye stones from the excavated materials will be picked up / hand sorted after washing. Existing pit will be laterally developed up to a depth of 3m from surface level to produce Cat's Eye @28 kg / annum to 40 kg / annum.
12. **Waste generation and management:** As the gemstone content is only 0.001% the entire excavated material there will be generation of large quantity of waste. In the washing unit

the gemstone are separated and the waste material goes to the settling tank. The settled mineral rejects in the form of sludge dried in a drying yard and then dumped. The Cat's Eye to waste ratio will be 1: 200 (Kg/Cu.m). During the conceptual period there will be generation of 138600 cu.m and will be stored over an area of 1.231 Ha of area. The waste will be transported from the quarry area to the dumping site through tippers.

Year	OB Generation (m^3)	OB to be Dumped (m^3)	Dump Name	Location of Dump (Coordinates)	Existing or New Dump	Top RL of the Dump	No. of terrace proposed	Individual Terrace Height (m)	Slope of the terrace / dump
I	5600	5600	Dump	213S– 265S / 286W – 351W	New	313	1	7.5	37^0 30'
II	6400	6400	do-	213S – 269S / 265W – 286W	-do-	313	1	7.5	37^0 30'
III	7000	7000	-do-	212S – 276S / 243W – 265W	-do-	313	1	7.5	37^0 30'
IV	7600	7600	-do-	216S – 286S / 220W – 243W	-do-	313	1	7.5	37^0 30'
V	8000	8000	-do-	222S – 292S / 196W – 220W	-do-	313	1	7.5	37^0 30'
Total	34,600	34,600	---	---	---	---	---	---	---

13. **Water requirement**: The water requirement of the washing plant is 6 m^3 / day which will be sourced by tanker. Water used for washing of the gemstone will be recirculated in the process.

14. **Baseline study details**: Baseline Study was conducted in the period March to May 2022.

- **Ambient Air Quality:** Concentration of PM10 varies from 38.1 to 62.2 µg/m^3 and $PM_{2.5}$ varies from 19.2 to 34.2 µg / m^3. The conc. of SO_2 varies from 4.1 to 10.3 µg / m^3 and NOx conc. varies from 10.1 to 19.6 µg / m^3.
- **Surface water Quality:** The pH range from 7.1 to 7.9.Total Dissolved Solids ranges from 110-154 mg/l. BOD ranges from 1.2 to 2.5 mg/l.COD ranges from 6 -20 mg/l. DO range is from 5.9 to 6.7 mg/l. Hardness of the water sample ranges from 56-92 mg/l. Iron ranges from 0.09-0.17 mg/l and it is within permissible limits. Fluoride is <0.005 and chloride range is from 10-22 mg/l i.e 10 mg/l.Heavy metals like Cu, Pb, Ag, Hg, B etc has been analyzed and found to be below the detection limit in all the water samples collected for testing.
- **Ground water Quality:** Water is colourless and odourless and found to be suitable for human consumption. The pH level of the ground water sample ranges from 7.0 to 7.7. Total hardness ranges from 64 to 108 mg/l, and total dissolved solid ranges from 84 to 136 mg/l. Fluoride is <0.05 mg/l and chloride is 8-20 mg/l. Fluoride content of the ground water sample is within the prescribed limit. Alkalinity ranges from 28 to 56 mg/l. Heavy metals like, Pb, Cr, Hg, Cd & As are not detected in the ground water sample this indicates that the water is free from any heavy metal contamination.
- **Soil Quality:** Soil of the area is mostly sandy loam and reddish brown in colour. pH of the soil samples are almost in neutral ranges i.e. varies from 6.3 to 7.0 i.e. slightly acidic to neutral. Available organic Nitrogen varies from 231 to 264 kg/Ha which is in considered as low nitrogen content. Available Phosphorus content in soil samples 16

to 23 kg/Ha medium content of phosphorous in the soil samples of the area. The soil samples indicate that the availability of Potassium ranges from 148 -309 kg/Ha which medium in potassium content. Organic carbon ranges from 1.2 to 1.6 % which is sufficient in the soil samples.

- **Noise Quality:** Noise level ranges from 40.4 to 53.4 dB during day time and 32.6 to 43.9 dB during the night time.

15. **Greenbelt development**: The green belt is proposed to be developed in a width of 7.5 m in safety zone along the boundary of mine lease area covering 2.190 ha with 5475 saplings. During the conceptual period dump area of 1.221 Ha will be reclaimed with plantation of 3050 saplings and 1.616 Ha of with 4040 saplings. An amount of Rs.4,50,000 has been allocated for development of greenbelt and annual expenses for green belt maintenance will be Rs. 2,00,000.00.

Year	Location	Area Proposed (Ha.)	Spacing (m)	No. of Saplings required	Name of Saplings
1st	Safety zone along M.L boundary	1.0	2.0	2500	Mango, Neem, Mahaneem, Chakunda, Accacia, Eucalyptus etc. as per soil condition
		1.19	2.0	2975	-do-
2nd					
Total	---	2.19	---	5475	---
Conceptual period	Dump	1.221	2.0	3050	Mango, Neem, Mahaneem, Chakunda, Accacia, Eucalyptus etc. as per soil condition
	Reclaimed Quarry	**1.616**	**2.0**	**4040**	

16. **Manpower requirement**: A total of 74 nos. of will be employed in the proposed mine.

17. **Project cost**: Total project cost of the mining is 320 Lakhs, EMP Capital cost includes 22.50 Lakh and recurring cost is 12.5 lakh mine.

18. **Environment Consultant**: The Environment consultant **M/s Kalyani Laboratories Private Limited, Bhubaneswar**along with the proponent made a presentation on the proposal before the Committee on 01.02.2024.

19. The SEAC in its meeting held on dated **01-02-2024** decided to take the decision on the proposal after receipt of the following from the proponent:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Mineralogical composition analysis of waste.	Mineralogical composition of the waste has been analysed and the report attached as **Annexure 1.**	Submitted.

Proceedings of the SEAC meeting held on 03.07.2024 (Old proposals – compliance received)

Jnayak
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
2.	Brief geology of the lease area.	Brief geology of the lease area is given as **Annexure 2.**	Submitted.
3.	Measures to control the stability of slopes	Measures to control the stability of slope is attached as **Annexure 3**	Submitted.
4.	Terrain maps along with the layout of the garland drain and settling ponds of adequate capacity for treatment of surface run-off.	The map showing the location of garland drains, settling tanks for treatment of surface runoff is attached as **Annexure 4.**	Submitted.
5.	Measures to be followed for control of dust and noise, and solid waste management during the mining activities.	Measures to be followed for control of dust and noise, and solid waste management during the mining activities is attached as **Annexure 5.**	Submitted.
6.	Few lands are agricultural lands. Therefore, kisam of land needs to be converted into appropriate Kisam before start of mining	During the approval of surface right the land conversion will be done by the district administration and after obtaining the surface right the mining activity will commence.	To be added as specific condition.
7.	Surface right shall be applied and submitted.	As per procedure surface right application will be made after obtaining environment clearance.	-
8.	Note on post mining and post recovery plan of the excavated soil after the extraction of minerals duly approved by the concerned mining officer.	Post mining proposal has been approved by the mining authority and is a part of the mining plan attached as **Annexure 6**	PP have submitted a modified mining plan with the progressive mine closure map. However, it is not approved by signatory authority (concerned mining officer).
9.	Submit progressive mine closure plan.	Copy of mine closure plan is attached as **Annexure 7.**	Submitted.

Considering the information furnished and the presentation made by the consultant, **M/s Kalyani Laboratories Pvt. Ltd., Bhubaneswar** along with the project proponent, the SEAC recommended for grant of Environmental Clearance upto lease period with stipulated conditions as per **Annexure – A** and following additional conditions;

i) **0.202 ha. of lands are agricultural lands. Therefore, kisam of land shall be converted into appropriate Kisam before start of mining.**

ii) **Modified mining plan with the progressive mine closure map shall be approved before start of the mining.**

iii) Haulage road shall be developed and maintained perennially and perpetually by the proponent in consultation with the concerned authority of the Govt.

iv) The project proponent shall maintain periodic health check-up records of their employees and ensure use of face mask by workers in crushing and handling sections of the decorative stone quarry for ensuring that working personnel are not affected by silicosis.

v) The project proponent shall undertake re-grassing of the area or any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for fodder, flora, fauna etc. after ceasing mining operation that is at the time of mine closure.

vi) Detail risk and hazard management procedure as per the **Annexure – D** shall be followed by the lessee.

ITEM NO. 02

PROPOSAL OF AMENDMENT ENVIRONMENTAL CLEARANCE FOR M/S KHUSHI REALCON PVT. LTD FOR PROPOSED CONSTRUCTION OF RESIDENTIAL APARTMENT TOWER-1A (B+S+S1+S2+25), TOWER-1B (B+S+S1+S2+25), TOWER-2A (B+S+S1+S2+25) & TOWER-2B (B+S+S1+S2+25) BUILDING PROJECT OVER AN BUILD UP AREA 111591.45 SQ. M AT MOUZA- PAHAL, BHUBANESWAR, DIST- KHURDA OF SRI PRADEEP THACKER – MOD EC

1. This proposal is for amendment Environmental Clearance for M/s Khushi Realcon Pvt. Ltd for Proposed Construction of Residential Apartment Tower-1A (B+S+S1+S2+25), Tower-1B (B+S+S1+S2+25), Tower-2A (B+S+S1+S2+25) & Tower-2B (B+S+S1+S2+25) Building Project over an Build up area 111591.45 sq. m at Mouza - Pahal, Bhubaneswar, Dist- Khurda of Sri Pradeep Thacker.
2. **Category**: As per EIA Notification dated 14th September 2006, as amended from time to time; the project falls under Schedule of item 8 (a) Building and Construction projects.
3. Previously, Environment Clearance has been granted for the following proposal from SEIAA, Odisha vide File No. 220279/42-MIS/07-2021, dated 06.04.2022 for Proposed Construction of Residential Apartment Tower-1(B+S+23), Tower-2(B+S+22), Tower-3(B+S+22) & Tower- 4(B+S+22) Building Project at Mouza-Pahal, Bhubaneswar, Dist- Khurda, Odisha. The total built up area of the project is 84372.0 sqm and total dwelling units from 458 nos. to 525 nos.
4. Now, PP wants amendment in Environmental Clearance for M/s Khushi Realcon Pvt. Ltd. for revised the built up area from 84372.2 sqm to 111591.45 sqm and also increase the dwelling units from 457 nos. to 525 nos.
5. **Location and Connectivity** – The proposed site is located at Mouza- Pahala, Tehsil-Bhubaneswar, Dist- Khurda, Odisha. The Geographical co-ordinate of the project site is: Latitude – 20^0 20' 16.9" N & Longitude - 85^0 53' 3.5" E. The project site is well connected with National Highway NH-16 at a distance of approx 0.2 Km in East direction. The nearest railway station is Vani Vihar Railway station at a distance of approx 6.53 Km in South-West direction & Bhubaneswar Railway Station at a distance 9.5 Km in South-west direction. The nearest airport is Biju Patnaik Airport at a distance of approx. 15.0 Km in South-west direction from project site.
6. Details of water bodies, impact on drainage, if any– No
7. Whether the project is located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area(ESA) notified by the MoEF&CC – No

8. Whether project site is in CRZ area if yes furnish the CRZ map- No

Statutory Clearances obtained so far:

9. Permission from Central Ground Water Authority (CGWA)
10. Application submitted to BMC for discharge of treated water and Collection of Solid Waste.
11. Electrical Load Connection technical feasibility from CESU
12. The site is coming under which Development Authority– Bhubaneswar Municipal Corporation (BMC)
13. The total plot area is 16637.91 sqm with total built-up area 111591.45 sqm.
14. The Building Area Details of the Project in tabulated form

Particular	**Area Details as per Existing EC dated 06.04.2022**	**Area Details as per Amendment Proposal**
Project Name	Khushi Pahal-2	Khushi Pahal-2
Plot Area	15565.82 Sqm	16637.91 Sqm
Ground Coverage	5589.69 sqm (35.9 %)	6650.17 sqm (39.97 %)
FAR (Floor Area Ratio)	4.07	4.73
Total Built up Area	**84372.2 sqm**	**111591.45 sqm**
Total Parking Area	19000.9 sqm	29436.44 sqm
Green Belt Area	3421.6 sqm (21.99 %)	3660.34 sqm (22 %)
Maximum No. of Floor	Tower-1 (B+S+23), Tower-2 (B+S+22), Tower-3 (B+S+22) & Tower-4 (B+S+22)	Tower-1A (B+S+S1+S2+25) Tower-1B (B+S+S1+S2+25) Tower-2A (B+S+S1+S2+25) Tower-2B (B+S+S1+S2+25)
Power/Electricity Requirement & Sources	Total - 2620 KW Solar - 83 KW TPCODL - 2537 KW	Total - 2918 KW Solar – 157.7 KW TPCODL – 2760.3 KW
No. of DG sets	4x700 KVA	2x750 KVA
No. of Dwelling Unit	458 Nos.	525 Nos.
Water requirement	257 KLD (Fresh)	295 KLD (Fresh)
Sewage Treatment Plant	STP Capacity - 350 KLD	STP Capacity - 400 KLD
Estimated Population-Residential, Commercial, Floating/visitors	3090 nos.	3150 nos.

15. **Water requirement**: Fresh make up of 295.0 m^3/day will be required for the project which will be sourced from Ground Water. Total waste water generated from the residential building is 387.0 KLD which is treated in STP of Capacity 400 KLD. 176 KLD of treated in Non Monsoon period and 201 KLD water Monsoon period will be discharge to the nearest drain.

16. **Power requirement**: Total Power requirement of the proposed residential building is 2918.0 KW, Source is TPCODL, 2x750 KVA DG Sets is provided. Total 157.7 KW Solar Power Generation which is 5.4% of total power required in project.
17. **Rain Water Harvesting**: Total 542.5 cum Rain Water is harvested through 17 nos. of recharge pits.
18. **Parking Requirement**: Total parking area required is 23599.13 sqm. Total parking area provided is 29436.44 sqm / 995 nos. of ECS provided and location of parking area is Basement & Stilt.
19. **Fire fighting Installations**: Fire Fighting will be provided as per NBC Norms.
20. **Green Belt Development**: Greenbelt is developed over an area of 3,660.34 sqm which is 22% of the total plot area. Total 215 nos. of plants to be planted and 3 tier plantation.
21. **Solid Waste Generation and Management**: From the residential complex solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.45 kg/person/day, which will be about 1417.5 kg/day. The generated solid waste from the residential complex will be segregated as biodegradable and non-biodegradable. This will be collected in separate colored bins. Proper waste management practices will be adopted during the collection, storage and disposal of the generated solid waste and construction and demolition waste.

Solid Waste Generation

S. No.	Category	Counts (heads)	Waste generated (kg/day)
1.	Residents	3150 @ 0.45 kg/day	1417.5
2.	Floating Population	315 @ 0.15 kg/day	47.3
3.	Club	150 @ 0.15 kg/day	22.5
4.	STP sludge		45.0
TOTAL SOLID WASTE GENERATED			**1532.3 kg/day**

22. **Project Cost** - The estimated project cost is 130.0 Crores and cost for EMP is 2.37 Crores.
23. The SEAC in its meeting held on dated **22-03-2024** recommended the following:

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

a) Undertaking by Project Proponent that no construction has been started for the proposed project.

b) Revisit the calculation for water requirement and parking area along with provision for visitors parking w.r.t to increase in dwelling units.

c) Upgrade/revise all the statutory clearances w.r.t to expansion project to be submitted.

d) The Project Proponent shall keep provisions for Electric Vehicles charging points in parking area.

e) NOC/Permission from concerned drainage department for discharge of additional treated water to nearest municipal drain.

f) Revise Traffic study report w.r.t to additional population in proposed project.

g) Latest EC compliance report to previous EC conditions.

h) Soil analysis report to be submitted.

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

a) Environmental settings of the project site.

b) Extent of construction activity.

c) Road connectivity to the project site.

d) Drainage network at the site.

e) Any other issues including local issues.

24. 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.	Undertaking by Project Proponent that no construction has been started for the proposed project.	No construction work is started at our Proposed project site. An undertaking is attached in **Annexure-1**.	Undertaking is attached intimating the same.
ii.	Revisit the calculation for water requirement and parking area along with provision for visitors parking w.r.t to increase in dwelling units.	Total Fresh water requirement of the proposed project is 295 KLD. Revised Water Calculation is attached in **Annexure-2**. Parking area required for the proposed project is 23599.13 sqm, parking area provided for the proposed project is 29436.44 sqm. Parking area provided for visitor is 2943.64 sqm which is 10% of total parking area. Total 995 ECS is provided for the proposed project. Details parking calculation is attached in **Annexure-3**.	Same water balance and parking are as mentioned earlier.
iii.	Upgrade/revise all the statutory clearances w.r.t to expansion project to be submitted.	Revised Building Plan has been submitted to BMC vide application no. BP-BMC-2024- 04-22-089384, dated 22.04.2024. BMC acknowledgement copy is attached in **Annexure-4**.	Application for Revised Building Plan has been submitted to BMC. Field inspection for the same is pending.
iv.	The Project Proponent shall keep provisions for Electric Vehicles charging points in parking area.	Total 80 Nos. of Electric Vehicles (50 nos. for Four Wheeler & 30 nos. for Two Wheeler) charging points is provided in the parking area.	80 Nos. of charging points for Electric Vehicles is provided.
v.	NOC/Permission from concerned drainage department for discharge of additional treated water to nearest municipal drain.	Drainage Plan of the proposed building has been approved by Bhubaneswar Municipal Corporation (BMC) vide letter no. 1814, dated 07.01.2022. BMC letter is attached in **Annexure-**	Permission obtained from concerned dept. to have PP's own arrangement for water supply and sewerage

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		5. We have also applied to BMC for revised the drainage permission as per our new building plan. We have already obtained the revised permission from PH Division for Water & Sewerage connection vide letter no. 5812, dated 24.05.2024. PH letter is attached in **Annexure-6**.	discharge.
vi.	Revise Traffic study report w.r.t to additional population in proposed project.	Revised Traffic Study Report has been vetted by School of Civil Engg., KIIT University Bhubaneswar & the vetted traffic study report is attached in **Annexure-7.**	Traffic Study Report reveals that forecasted V/C is LOS B
vii.	Latest EC compliance report to previous EC conditions.	We have not carried out any construction work at the project site. Once the project will start the Six Monthly EC Compliance report will be submitted to IRO Bhubaneswar.	-
viii.	Soil analysis report to be submitted.	Geotechnical Investigation Report is attached in **Annexure-8**.	Annexure 8 is attached.

25. The proposed site was visited by the sub-committee of SEAC on **07.06.2024**. Following are the observations of the sub-committee:

    a) The site was clean. Only entry gate foundation started as per previous EC.

    b) Also observed a marketing office under construction, which PP informed is temporary and will be remove later.

    c) PP was asked to submit the following if not submitted for modified plan:

        i) Latest situation of drain accessibility, permission from the authority along with approved plan for discharge of excess treated water and storm water.

        ii) As there are encroachments outside the plot where the PP propose to construct drain, they should submit require permission with approved drawing from the authority.

        iii) All statutory permission including NOC from airport authority, fire, structure and stability etc.

        iv) Since it is low lying area, PP to submit the water levels and excess rain water management plan to combat flooding.

        v) PP to take up and implement above before construction of building.

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

a) As there are encroachments outside the plot where the PP propose to construct drain, they should submit required permission with approved drawing from the authority.

(Permission has been granted for own drainage and water supply from concerned dept.)

b) Building plan approval from the concerned authority also needs to be submitted.

c) Since it is low lying area, PP to submit the water levels and excess rain water management plan to combat flooding.

d) RLs of ground water table during the monsoon period along with the RLs of the bottom of the proposed rainwater harvesting pits to be constructed need to be furnished.

ITEM NO. 03

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S MEDIAID MEDICAL ANCILLARY SERVICES FOR COMMON BIOMEDICAL WASTE TREATMENT FACILITY (CBWTF) AT: KHATA NO:552/149, PLOT NO:2283 & 465/5610AT-SEEPUR, KARNAPAL, KANIHA, TALCHER, DIST – ANGUL OF SRI SUSANTA KUMAR TRIPATHY - ToR

1. The proposal was considered by the committee to determine the "Terms of Reference (ToR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.

2. This proposal is for Terms of Reference (ToR) for obtaining Environmental Clearance of M/s Mediaid Medical Ancillary Services for Common Biomedical Waste Treatment Facility (CBWTF) At: Khata No:552/149, Plot No:2283 & 465/5610At-Seepur, Karnapal, Kaniha, Talcher, Dist – Angul of Sri Susanta Kumar Tripathy.

3. **Category**: This project falls under Category "B" of Project activity 7 (da) - Development of Common Bio Medical Waste Treatment Facility projects as per EIA Notification dated 14th Sept, 2006 as its amendments.

4. **Location and connectivity:** The proposed project is located at Khata No. 552/149, Plot No. 2283 & 465/5610 Mouza-Seepur, GP-Karnapal, Tahasil-Kaniha, District –Angul, State-Odisha. The geographical co-ordinates of project site are: 21°10'24.12"N and 85°10'16.40"E. The Topo Sheet No. is F45N3, 45N4 & 45N8. And kissam of land (presently –Taila-2) will be change to "Industrial use" before start construction of the project. PP has been applied for conversion of Kisam of the land from agricultural to non-agricultural vide Application no.-2023140700587 on dated 24/11/2023. The nearest road is NH149 at 1.58 km in WNW direction & Banarpal -Palhara Road at 3.32km in E direction. Nearest Reserve Forest is Pandaba Reserve Forest at 6.91km in N direction, Jambua Reserve Forest at 7.85 in NNW direction, Khajuria Reserve Forest at 6.46 in NW direction, Kunjam Reserve Forest at 3.74 in NE direction. Nearest Water Body is Brahmani River at 3.03 in W direction, Samakoi Nadi at 5.08 in SSE, Balijyoti Nala at 1.25 in W direction, Jambua Nala at 3.62 in WNW direction. There are no National Park/Wildlife Sanctuary/ Eco-sensitive zone are within 10 km radius of the Project Site.

5. **List of Statutory clearances obtained:**

   - Applied for conversion of Kisam of the land from agricultural to non-agricultural vide Application no.-2023140700587 on dated 24/11/2023.
   - NOC from Karnapal Gram panchayat for setting of a CBWTF vide letter no. 42 dtd. 13.11.2023.

6. Proposed Units & Total Capacity are as follows:

Name of equipment	Rated Capacity	Number
Incinerator	250 kg/hr	1+1
Autoclaves	300 kg/ batch	1
Shredders	300 kg/hr	1
Effluent Treatment Plant	10 KLD	1

7. **Baseline study conducted**–Baseline study is being conducted for the time period- 1st Oct 2023 to 31st Dec 2023.

8. **Mitigation of waste produced:** During Construction phase of the unit, Solid & Hazardous Waste will be Wooden, Metallic Waste, Containers, Oil Drums and Domestic Waste from the labor unit etc. During Operation of the unit main waste will be Ash from Incinerator and Sludge from ETP; Total 100-150 kg/day of Incineration Ash and 10-20 kg/day of Residues shall be generated from the Treatment Unit; Ash Residue from High Temperature Incineration and Other Material Residues from the process shall be collected into Containers / Bags and shall be stored at temporary ash storage shed and shall be disposed into the secured Landfill periodically after sufficient accumulation; Approx. 50-100 kg /month of Sludge will be generated from ETP. Approx. 15 kg/day municipal solid waste and Other Residues @ 10 - 20 kg/day is generated.

9. **Rain Water Harvesting Details -** The rainwater from roof top and garden area will be sent to RWH pits and RWH pond. A RWH pond will be located in the SW corner with dimension 10 m x10m x10 m in the Project premises. The excess runoff water during rainfall inside the project site will be diverted to the nearby manmade canal.

10. **Water requirement:** Total water requirement of the proposed project is 20 KLD which is sourced from bore well /tankers. The fresh water requirement would be 16 KLD.

Sr. No.	Details	Consumption (KLD)
a)	Process requirement (Incineration, Cleaning of storage area, Autoclave, Shredder)	12.0
b)	Domestic Requirement	1.5
c)	Vehicle Washing And Floor Washing	3.0
d)	Plantation and Greenbelt	4.0

11. **Wastewater details:** Total 4 KLD of Effluent and 1 KLD of domestic sewage shall be generated from the proposed project. An Effluent Treatment Plant of 10 KLD capacity has been proposed to treat the effluent. Treated effluent shall be used back to the treatment process of unit and excess water.

12. **Power requirement:** DG set of 125 KVA is proposed for the project and 100 KW power from 11KV lines will be taken with due permission from concerned authority. Fuel consumption is Incinerator – LDO/HSD @ 35 litres/hr for 10 hrs = 350 litres/day, Autoclave Boiler-LDO/HSD @ 15 litres/hr = 150 litres/day, Total LDO/HS = 500 litres/day, Diesel for DG Set @ 12~15 litres/hr (in case of Power Failure). Provision of Solar power :52% of the total power consumption is 5KW.

13. **Greenbelt development:** Total 10,036.2 sqm area is identified proposed CBWTF. Total 1234.334 Sqm of land shall be used for treatment unit and 3367.86 (more than 33.5 % of total area) is secured for Green Belt Development.

14. **Total Employment**: Total about 30 persons are proposed to be hired for plant operations including officers, skilled and unskilled workers. Required manpower shall be sourced from local area. During Construction phase, the labours and workers will be hired from nearby villages.

15. **Project cost**: The estimated project cost is Rs. 3.156 Cr / 315.65 Lakh (Capital Cost), EMP Cost: 25.5 Lakh (capital cost), Recurring Cost:-4.3 Lakh, CSR Cost:-4.8 Lakh.

16. **Environment Consultant**: The Environment consultant **M/sVisiontek Consultancy Services Pvt. Ltd. (Bhubaneswar)** along with the proponent made a presentation on the proposal before the Committee.

17. The SEAC in its meeting held on dated **09-02-2024** recommended the following:

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

i) Land document in the name of the company or in the name of the owner.
ii) Aerial distance certificate from SPCB, Odisha indicating that there is no nearby CBWTF within 75km radius.

B. Following specific ToRs may be prescribed while issue of Terms of References.

i) Waste handling procedure with layout.

ii) Revised water balance including each process.

iii) Provision of monitoring system of ETP.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Land document in the name of the company or in the name of the owner.	**Land Area: 2.48 Ac. /1.0036 Ha/10036.2 Sqm** Khata No. 552/149 Plot No. 2283 & 465/5610 Mauza-Seepur, GP-Karnapal, Tehsil-Kaniha, District – Angul, State-Odisha **Land Documents Are Attached As Annexure-1**	Annexure 1 is attached and complied.
2.	Aerial distance certificate from SPCB, Odisha indicating that there is no nearby CBWTF within 75km radius.	We Are Applied To **The Regional Officer, State Pollution Control Board, Angul** For Aerial Distance Certificate Of Nearby CBWTF Within 75km Radius From Our Project Site. Google Image Shows The Distance of CBWTF Is Attached As **Annexure-2**. **A Letter received to SPCB, Odisha from Regional Officer regarding** "Distance authentication w.r.t. proposed Common Bio-Medical Waste Treatment Facility at Khata No.552/149, Plot No.2283 & 465/5, 610 at Seepur, Karnapal, Kaniha, Talcher, Dist-Angul, 759100 by Madiad Medical Ancillary Services- Reg. attached as **Annexure-2.1**	Annexure 2.1 is attached and complied.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Visiontek Consultancy Services Pvt. Ltd. (Bhubaneswar)**, the SEAC prescribed the following specific ToRs in addition to standard ToRs as per **Annexure – B** for conducting detailed EIA study. **However, SEIAA, Odisha may take decision about the distance criteria of 75 kms from other Common Biomedical Waste Treatment Facility as per CPCB, Delhi guidelines before issue of ToRs.**

Proceedings of the SEAC meeting held on 03.07.2024 (Old proposals – compliance received)

Jnayak
Environmental Scientist, SEAC

i) Measures to be taken for collection of Bio Medical Wastes.

ii) Details of equipments and their capacity to be installed in Project.

iii) Permission from the panchayat and ROW documents for connecting land from project site to nearest approach road through the nearby village area.

iv) Submit details of amount of waste to be generated from the hospitals on the per day basis rather than calculating on number of beds.

v) Submit aerial distance certificate from the nearby biomedical waste treatment facilities.

vi) Precautionary measures to be undertaken to avoid contamination of wastes or due to surface runoff from project site to the nearby water reservoir.

vii) Submit a Standard Operating Protocol starting from collection point of waste generation/raw material, segregation, transportation, treatment and disposal of waste generated from plant.

viii) The baseline monitoring should also include biological parameters and baseline study should also cover the monsoon period.

ix) The storage sheds provided for the biomedical waste should be covered.

x) Provide a buffer zone of 5km around the proposed site.

xi) Submit a write up on the amount of segregated waste to be handled at the project site monthly and annually.

xii) Avoid using transport route passing through the village.

xiii) SOP/measures to be followed for safety and health issues (due to handling of hazardous waste materials) of employees and local people of nearby villages.

xiv) Area details to be cover for collection of waste materials/raw materials.

xv) Agreement papers or MoU with dealers for disposal of waste generated and its management.

xvi) Category wise list of wastes to be handled.

xvii) Internal drainage plan of the project site for smooth discharge of excess rainwater along with excess treated water showing the location of its discharge point to the nearest public drain. The location of the nearest public drain also to be shown in the above-mentioned lay out map.

ITEM NO. 04

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S RAGATRADECON PVT. LTD. FOR PRODUCTION OF 1.0 MTPA IRON ORE WITH 750 TPH CRUSHING UNIT AND 600 TPH SCREENING UNIT IN NETRABANDHA PAHAR (WEST) IRON ORE BLOCK OVER AN AREA OF 74.370 HA. IN VILLAGE - BALADIHI & SANUA, TAHASIL - KOIRA, DIST: SUNDARGARH OF SRI SANGRAM KESHARI RAY - EC

1. This proposal is for Environmental Clearance of M/s Raga Tradecon Pvt. Ltd. for production of 1.0 MTPA Iron Ore with 750 TPH Crushing Unit and 600 TPH screening unit in Netrabandha Pahar (West) Iron Ore Block over an area of 74.370 ha. in Village -Baladihi & Sanua, Tahasil - Koira, Dist. - Sundargarh of Sri Sangram Keshari Ray.
2. **Category**: As per the EIA notification 2006, and its subsequent amendments, proposed project falls in category B under schedule of Item 1(a) - Mining of Minerals.
3. **Location and Connectivity** – The proposed project is located at Plot No. 41,102/3,19/557/P,16/P,103/P,106/P,544/P,15/P,15/577/P, 15/578/P, 13/546/P, 16/556/P, 18/P, 20/P, 19/P, 19/P, 61/P, 41/696, 41/699, 40/P, 39/P,38/P, 37/P, 36/P ,34/P, 35/P ,44/P, 57/P, 60, 59, 55, 46, 46/700, 47, 56, 58/P, 54/P, 48, 49, 50/P, 50/697, 50/701, 51/P, 45/P in Village - Baladihi & Sanua, Tahasil - Koira, Dist - Sundergarh bounded by Geo-coordinates: Latitude: 21° 52' 20.13448" N to 21° 53' 01.24710" N Longitude: 85° 16' 46.84900" E to 85° 17' 15.901" E bearing Toposheet no: F45N5 and Kisam of land: Non Forest 8.128 Ha., Forest: 66.242Ha. Nearest distance of approach road is Patmunda DMF Road 500 m; SH: SH-10A, 31 km; NH: NH-520, 7 km; Airport : Veer Surendra Sai Airport, Jharsuguda, 127 km; Railway Station: Barsuan Railway Station 30 km. Nearest nalas is Teherei nala with 2 km, nearest River is Karo River 8.2 Km & Suna Nadi is 7.89 Km. Nearest Reserve forest: Khajurdihi RF & Mendhamuruni RF are the nearest RF 2.5km & 2.04 Km respectively; Nearest Habitation.: Beldihi, 0.2 km. Similipal National Park is 82 Km & Hadagarh WLS is 112 Km away from the lease area.
4. Letter Of Intent was granted vide letter no 8722/IV(B)SM-53/2021 dtd 28.10.2021 and name of Lease Holder is M/s Raga Tradecon Pvt. Ltd.
5. **TOR details**: Terms of Reference was issued by SEIAA vide letter no. - 4917/SEIAA, Dated 19.07.2022.
6. **Details of statutory clearances**:
   - Mining Plan: Approved vide. No. MCDR-MiFL0FE/42/2023-BBS-IBM_RO_BBS Dated 12/06/2023.
   - Forest Clearance: Stage-I Forest Clearance accorded vide File No. 8-14/2023-FC Dated.21.12.2023.
   - Site Specific Wildlife Conservation Plan:. Approved vide 13789/CWLW-PDWC-FD-0013-2023 dated.22.12.2023.
   - NOC Ground Water from CGWA: Obtained from CGWA, vide letter no. CGWA/ NOC/ MIN/ ORIG/ 2023/ 18227, dated 17.04.2023 valid till 16.04.2025.
   - Forest land is involved, total forest land is 66.242 Ha. Stage-I Clearance has been obtained over 66.242 ha vide File No. no-8-14/2023- FC dated 21.12.2023.

7. **Public hearing details:** The Public Hearing advertisement was published on 11.10.2022 and conducted on 10.11.2022 at Khajuridihi Chhak. 141 people were participated in that PH. Sundergarh ADM presided over the Hearing. Issues raised during public hearing are Pollution Control, Tree transplantation, avenue plantation, dust pollution, revival of nalaas and streams, ground vibration,local employment , manual labour, Scolarship on merrit basis, appointment of teacher, Plantation of Fruit bearing trees, Agricultural development, Drinking Water, Bore well , drinking water , Electricity, Irrigation, Education, Adoptation of village, SHG women empowerment, drinking water and telecommunication. The budget incurred for action plan of public hearing is 60 lakhs.

8. **Summary of products generated by the project-**

Units	Products & Biproducts	Existing	Additional	After Expansion
MTPA	Iron Ore	1.0 MTPA	-	-

Year wise Production Details

Sl No	Year	ROM in T	Mineral Rejects	OB/Ore Ratio	Average Grade
1	Year 1	400000	0	0.33	61.09
2	Year 2	450000	0	0.19	61.09
3	Year 3	600000	0	0.22	61.09
4	Year 4	800000	0	0.78	61.09
5	Year 5	1000000	0	0.67	61.09
Total		3250000			

9. **Method of Mining :** Open Cast Mining is proposed for the project with bench height-10 m, width- 15m, slope- 37°.Ground Water Depth is at 540 mRL, Pre-monsoon 3m to 7.5m bgl.

Sl. No.	Type	Make	Capacity	No. of Equipment
1	Excavator	Hitachi	2.0	3+1
		Volvo	2.0	3+1
2	Excavator for plant feeding	Komatsu	0.9	5+1
3	loader	SDLG	3.0	2
		Liugung	2.5	3
		Cat	4.5	2+1
4	DTH	Sandvik (D1550)	110mm Dia	2+1
5	Dumper	Volvo	25MT	18+6
6	Water tanker	Volvo	20000 Litre	2
7	Mobile Crushing unit	SANDVIK/METSO	250 TPH 150TPH	1 1 (Stand by)
	Fix Crushing unit	SANDVIK /METSO	350TPH	1
8	Mobile Screen plant	SANDVIK/METSO/ Horizon SANDVIK/METSO/ Horizon	250TPH 200TPH 150TPH	1 1 1
9	Dozer	Cat	264 HP	2
10	Grader	Komatsu 705	260 HP	1

11	Rock Breaker	Hitachi	25Mt	1
12	Ambulance	---	---	1
13	Staff bus	Force	---	1
14	Camper	Mahindra	---	2
15	Bolero	Mahindra	---	4

10. **Details of Drilling & Blasting:** DTH drill will be engaged for drilling, the diameter of the hole will be 110mm, drilling depth 10m, wet drilling will be adopted with dust extraction system. Control blasting method will be adopted by using non-electric (NONEL) with delay detonator.

11. **Number of Topsoil Dumps:** As the litho units are lateritic, BHJ & Iron ore as per approved mining plan, no topsoil will be generated, however during mining operation whatever topsoil to be generated will be stacked separately at ear marked site.

12. **Waste Generation:** During the plan period 463574 cum of waste will be generated, out of which 40 % i.e., 185429.6 cum of waste will be utilized for road maintenance, remaining 60% i.e. 278144.4 cum of waste disposed off at the proposed earmarked site of waste dump. The area of dumping will be 3.22 ha and the average height will be 22 m. During Conceptual period a total 2523905 cum of waste will be generated. Out of which 44310 cum of waste will be dumped over 7.867 Ha with an average height of 30m. Remaining 2479595 cum of back-filled over an area of 24.587 Ha with an average height if 20 m. There will be no mineral rejects during the plan period. The average grade of ROM to be produced during plan period is greater than 55% Fe. The mineral reject (45-55%Fe) to be generated during conceptual period will be blended with high grade iron ore to make it saleable. The material to be generated will be stacked at earmarked site temporarily for a short period and subsequently utilized for blending purposes & sale to beneficiation industries.

Year-wise Waste Generation and Disposal During plan period

Sl. No.	Year	Proposed Area (ha)	Height (m)	Total Dump Quantity (m^3)	Utilisation of waste (cum)	
					Road maintenance	Dumping
1	Year1	0.87	3	26207	10482.8	15724.2
2	Year2	0.56	3	16792	6716.8	10075.2
3	Year3	1.33	3	39844	15937.6	23906.4
4	Year4	2.36	8	189005	75602	113403
5	Year5	1.92	10	191726	76690.4	115035.6
				463574	**185429.6**	**278144.4**

Conceptual generation of Mineral Reject and its utilization

Volume of waste generation during conceptual period (cum):	Management	Volume of waste (cum)	Area of dumping/Back-filling (m^2)	Average Height (m)	Top RL
	Dumping	443100	44310	10	668m
	Back-filling-1	1003680	116684	20	650m
	Back-filling-2	518400	90920	20	610m
	Back-filling -3	558725	38269	20	650m

Proceedings of the SEAC meeting held on 03.07.2024 (Old proposals – compliance received)

Jayaraj
Environmental Scientist, SEAC

2523905					
Total		2523905	290183		

13. **Details of crushers/ screen/beneficiation plant:** 750 TPH Crushing & 600 Screening and no beneficiation is proposed.

14. **Land use details:**

Sl. No.	Head	At present (Ha)	At the end of SOM Period Ha.	At the end of conceptual period (Ha.)
a)	Mining	0	8.3	43.82
b)	Over burden/Dump	0	3.22	
c)	Mineral Storage (Ore stack yard & Mineral Reject Stack	0	7.09	18.56
d)	Infrastructure (Office, Workshop, Weigh Bridge, Parking Plaza, fuel Station, Mobile crusher, Traffic control room etc.)	0	0	0
e)	Road	0	5.49	4.63
f)	Mineral separation plant (crushing unit)	0	4.59	
g)	Green Belt (safety Zone)	0	7.35	7.35
h)	Water Body	0	0	0
i)	Un-disturbed	74.37	38.23	0
j)	Others	0	0.1	0
	Total	**74.37**	**74.37**	**74.37**

15. **Details of waste generated.** 463574 CUM of waste will be generated in the plan period.

16. **Mitigation of waste produced:** During the plan period 463574 cum of waste will be generated, out of which 40% i.e., 185429.6 cum of waste will be utilized for road maintenance, remaining 60% i.e. 278144.4 cum of waste disposed off at the proposed earmarked site of waste dump. The area of dumping will be 3.22 ha and the average height will be 22 m. During Conceptual period a total 2523905 cum of waste will be generated. Out of which 44310 cum of waste will be dumped over 7.867 Ha with an average height of 30m. Remaining 2479595 cum of backfilled over an area of 24.587 Ha with an average height if 20 m.

17. **Other Waste Generation:** Hazardous waste, E-Waste, battery waste will be managed as per their handling rules. Domestic solid waste will be utilized as green manure.

18. **Baseline details:** Baseline study was conducted during the time Period from 1st March 2022 to 31st May 2022.

19. **Total water requirement and wastewater management:** Total,112 KLD of water will be required out of which Fresh Water 62 KLD, RWH 38 KLD. 12 KLD water will be recycled from ETP & STP will be utilized in dust suppression, in process and in green belt.

Components	From Ground Water in KLD	Recycle water Generation from STP & ETP	From RWH in KLD	From STP & ETP in KLD	Total Usage in KLD
Dust Suppression	40	0	30	4.04	74.04
Green Belt	5	0	8	4	17
Industrial	5	5.04	0	4	9
Domestic	12	7	0	0	12
Total	**62**	**12.04**	**38**	**12.04**	**112.04**

20. **Power Requirement and solar power details:** 300 KVA from state Grid & 30 KVA of Solar Power to be installed. 300 KVA DG set will be kept as standby during emergency backup.

21. **Rainwater Harvesting Details** – 38 KLD of water will be consumed from RWH Pond during lean period. There will be 2 RWH Pond with dimension 50m x 45m x 5m capacity=11250 cum and another dimension 40m x 30m x 5m capacity= 6000 cum RWH with total capacity of 17250 cum. Roof Top Harvesting & GW recharge is 1326 cum/annum.

22. **Green belt Development**: 7.35 Safety Zone with green belt, gap of 2000 saplings, around 700 saplings will be planted in vacant place along approach road, office & screening & crushing plant.

23. **Employment**: 188 persons with direct employment and more than 150 persons indirect employment is proposed.

24. **Project cost:** Total cost of the project is 6000 Lakhs with EMP capital cost is 562 Lakhs and recurring cost 99.9 lakhs while CSR Cost is 60 Lakhs.

SL. NO.	PARTICULARS	CAPITAL COST IN LAKHS	RECURRING COST IN LAKHS/ ANNUM
1	AIR POLLUTION CONTROL	90	25
a)	Truck mounted water tankers - 2 nos.		
b)	Maintenance of Vehicle Wheel wash system		
c)	Installation of fixed Water Sprinklers at haul roads		
d)	Dry fog system in Crushing & Screen plant		
e)	Mechanized vacuum cleaner	25.0	1.6
f)	Water soluble soil binders		2
g)	Online continuous air monitoring	140	2
2	WATER POLLUTION CONTROL		
a)	Construction of garland drains retaining wall with settling pits	80.0	6
b)	Rain water harvesting Pond/Pits	70.0	3
c)	De-silting & regular cleaning of nallas/ streams	10	3

SL. NO.	PARTICULARS	CAPITAL COST IN LAKHS	RECURRING COST IN LAKHS/ ANNUM
d)	STP	50.0	3
e)	ETP	30.0	2
f)	Wheel wash System	25.0	3.5
3	NOISE POLLUTION CONTROL	5.0	0.8
a)	PPE		
b)	Stack for DG set		
4	ENVIRONMENT MONITORING	-	36
5	GREEN BELT DEVELOPMENT	30.0	6
6	OCCUPATIONAL HEALTH MANAGEMENT	7.0	6
TOTAL		562.0	99.9

25. **Environment Consultant**: The Environment consultant **M/s Oceao-Enviro Management Solutions (INDIA) PVT. LTD.** along with the proponent made a presentation on the proposal before the Committee on 13.03.2024.

26. The SEAC in its meeting held on dated **13.03.2024** decided to take decision on the proposal after receipt of the following information / documents from the proponent:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Copy of Stage-I Forest Clearance obtained.	Copy of Stage-I Forest Clearance Attached as **Annexure I.**	In principle under section 2 FC has been obtained.
2.	Some portions of the lease area belong to the Scheduled tribes. The PP shall submit an undertaking that no mining activity will be carried out in the said tribal land. Further the same shall be demarcated in the Mining plan.	An undertaking has been given in **Annexure II.**	Undertaking for the given ADS is attached.
3.	Layout showing Garland drain, checks dams and retaining wall in the lease area to be submitted.	Layout showing Garland drain, checks dams and retaining wall in the lease area is submitted in **Annexure III.**	Annexure III attached and complied.
4.	As the lease area is in a terrain, the PP shall submit a plan for slope study for dump management. Further, an undertaking shall be submitted for carrying out blasting and vibration study before commencement of mining activity.	Undertaking given for slope study, for dump management & undertaking for carrying out blasting and vibration study as **Annexure IV.**	Undertaking submitted by PP that slope study for dump management and blast vibration study will be conducted after initiation of mining operation.
5.	NOC/permission to be obtained from Department of Water Resources, Odisha for groundwater withdrawal.	Undertaking given for obtaining permission from Department of Water Resources, Odisha for ground water withdrawal given as **Annexure V.**	The PP has submitted undertaking to comply to the terms of NOC for ground water withdrawal

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
			before starting mining operation. However, the NOC/ permission from Department of Water Resources, Odisha for groundwater withdrawal is not obtained.
6.	Detailed note on dust management during crushing and screening process.	A note on dust management is given as **Annexure VI.**	Annexure VI attached.
7.	The PP has not finalized the transportation route for minerals as mentioned during presentation. The PP needs to submit the transportation route with supporting documents like MoU/agreement with the private owners/Copy of RoR for the approach/transportation road. If the transportation route falls in the land belonging to Scheduled Tribes, then proper arrangement shall be made as per the norms and an undertaking shall be submitted.	The transportation route for minerals with supporting documents like MoU/agreement with the private owners/Copy of RoR is given as **Annexure VII.**	Annexure VII is attached.
8.	The PP has decided to install 600 TPH screening unit which might be insufficient for the enhanced production capacity.	The configuration of 600 TPH screening is given as **Annexure VIII.**	Annexure VIII is attached.
9.	Compliance to NEERI recommendations.	Compliance to NEERI recommendations is given as **Annexure IX.**	Annexure IX is attached.

Considering the information furnished and the presentation made by the consultant **M/s Oceao-Enviro Management Solutions (INDIA) PVT. LTD.** along with the project proponent, the SEAC recommended for grant of Environmental Clearance with stipulated conditions as per **Annexure – C** and following specific conditions:

i) **Some portions of the lease area belong to the Scheduled Tribes. No mining activity shall be carried out in the said tribal land as per undertaking submitted. Revised mining plan indicating exclusion of the mining lease area inhabited by the scheduled tribes from all the mining activities inter alia including routes of mined ore transportation needs to be approved by the competent authority.**

ii) **Scientific study for stability of benches and dump slopes; and blast vibration shall be conducted as per the above-mentioned revised approved mining plan which needs to be done by the competent agencies.**

iii) NOC/permission shall be obtained from Department of Water Resources, Odisha for groundwater withdrawal.

iv) The project proponent shall maintain adequate greenbelt in the lease area.

v) OB dump sites shall be managed properly as proposed.

vi) The fines generated due to mining shall be managed properly.

vii) Proper Air Pollution Control measures shall be provided to control dust emission and local dust generation.

viii) Both dust suppression and extraction system shall be provided in the crushing and screening units to control fugitive emission.

ix) The project proponent shall obtain permission from the concerned authority for usage of ground water.

x) Adequate measures shall be adopted for management of noise, vibration and fly rocks as per the DGMS guidelines.

xi) Bench and dump slopes are to be designed and maintained so that their failure is avoided.

xii) Permission from Water Resources dept. to be taken for usage of ground water.

xiii) Rainwater harvesting structures as submitted in the proposal shall be constructed and maintained. The surface runoff generated during monsoon shall not be discharged outside.

xiv) The lessee shall take adequate safeguard measures to ensure the free flow of the nallahs.

xv) The EC is limited to secondary crushing and screening operations (dry process) as per approved mining plan. Under no circumstances, the lessee shall carry out any beneficiation activity (wet process) of low-grade ore.

ITEM NO. 05

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR PROPOSED (B1+B2+G+15) STORIED BUILDING FOR IT PARK CUM FOOD COURT OF M/S ROYALE HOTELS PVT. LTD. AT CHANDAKA INDUSTRIAL ESTATE, MOUZA - CHANDRASEKHARPUR, BHUBANESWAR, DIST- KHURDA, ODISHA - EC

1. This proposal is for Environmental Clearance of proposed (B1+B2+G+15) Storied building for IT Park Cum Food Court of M/s Royale Hotels Pvt. Ltd. at Chandaka Industrial Estate, Mouza- Chandrasekharpur, Bhubaneswar, Dist- Khurda, Odisha.
2. **Category**: The project falls under category "B" or activity 8 (a) - Building and construction projects, as per the EIA Notification 2006 and amendments thereafter.
3. **Location and Connectivity**: The proposed site is located at IDCO Plot No. - F/104, F/103/1, F/103/2, F/103/3, Corresponding to Revenue Plot No. 7(P) & 44 (P) Chandaka Industrial Estate, Mouza - Chandrasekharpur, Bhubaneswar, Dist- Khurda, Odisha. The Geographical co-ordinate of the project site is: Latitude - 20° 20' 33.31" N & Longitude -

85° 48' 32.74" E and Kissam of Land : Gharabari. The site is situated near Infocity which is adjoining to Venketeswar English Medium School, Chandrasekharpur, Bhubaneswar. The nearest railway station is Bhubaneswar Railway station at a distance of approx 9.2 Km in South-East direction. The nearest airport is Biju Patnaik Airport at a distance of approx. 9.6 Km in South direction from project site. The site is easily accessible from Nandan Kanan to Infocity Road.

4. The site is coming under Bhubaneswar Development Authority, Bhubaneswar.
5. The total plot area is 8092.0 sq.mt./2.0 Ac./0.809 Ha. with total built-up area 40830.71 sq.mt.
6. The Building Area Details of the Project in tabulated form:

Particular	Proposed	Permissible
Project Name	Proposed (B1+B2+G+15) Storied building for IT Park Cum Food Court	
Total Plot Area	8092.00 sqm	--
Road Affected Area	364.74 sqm	--
Net Plot Area	7727.26 sqm	
Ground Coverage	3013.63 sqm (39%)	--
FAR Area	28679.75 sqm	--
FAR	3.71	
Total Built up Area	**40830.71 sqm**	**--**
Maximum Height	78.3 m	--
Road Area	8,065.10 sqm	--
Basement Parking Area	11656.72 sqm	**11471.9 sqm**
Total Parking Area	**11656.72 sqm**	
Green Belt Area	1661.36 sqm (21.5 %)	1545.45 sqm (20 %)
Maximum No. of Floor	B1+B2+G+15	--
Power Requirement	2108.11 KW	--
Solar	116.01 KW	
No. of DG sets	2x1010 KVA & 1x500 KVA	--
Fresh Water requirement	142.3 KLD	--
Sewage Treatment Plant	STP Capacity – 200 KLD	--
Solid Waste Generation	679.4 kg/day	
Estimated Population- Residential, Commercial, Floating/visitors	Commercial- 2321 Nos. Visitor- 2992 Nos.	--

7. **Water Requirement**: Fresh make up of 142.3 m^3/day will be required for the project which will be sourced from IDCO Supply Water.
8. **Wastewater generated:** Total waste water generated from the commercial building is 196.3 KLD which is treated in STP of Capacity 200 KLD. After treatment, treated water will be used in Dust Suppression (6.2KLD in summer only), Landscaping (6.6KLD in summer only), HVAC (75.0KLD) and drain (16.2KLD in Non monsoon and 29.0KLD in Monsoon).
9. **Rain Water Harvesting**: Rain Water harvested through 16 nos. of Rain Water recharging pits.
10. **Power requirement**: - Total Power requirement of the proposed building is 2108.11 KW, Source is TPCODL, 2 x 1010 KVA & 1x500 KVA DG Sets is provided. For the proposed project height of the stack shall be 85 m. Total 116.01 KW Solar Power Generation which is

5.5% of total power required in project consisting of 30 Nos. of Solar Street Light poles of 2.16 KW capacities is directly connected with Solar Panel and 113.85 KW Solar energy generated from 55 nos. of PV Panels is distributed to Grid with proper agreement.

11. **Rainwater harvesting**: - Total 191.2 cum Rain Water is harvested through 16 nos. of recharge pits.
12. **Parking requirement**: - Total parking area provided is 11656.72 Sq.mt. and total 364 nos. of ECS and location of parking area is Basement.
13. **Green Belt Development**: - Greenbelt is developed over an area of 1661.36 sqm which is 21.5% of the total plot area. Total 109 nos. of plants to be planted and 3 tier plantation.
14. **Solid Waste Generation**: -

S. No.	Category	Counts (heads)	Waste generated (kg/day)
1.	Commercial	2321 @ 0.15 kg/day	348.2
2.	Floating	2992 @ 0.10 kg/day	299.2
3.	STP sludge		32.0
TOTAL SOLID WASTE GENERATED			**679.4 kg/day**

15. **Project cost** : The estimated project cost is 85.0 Crores and cost for EMP is 1.85 Crores.
16. **Environment Consultant**: The Environment consultant **M/s Centre for Envotech & Management Consultancy Pvt. Ltd, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee on 03.02.2024.
17. The SEAC in its meeting dated **03-02-2024** recommended the following:

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

i) IDCO allotment letter for the proposed land alloted as previously for Hotel and now change to IT park cum Food Court.

ii) Drainage plan & water permission approved by IDCO.

iii) The effluent generated form the HVAC should be treated prior to discharge or reuse. Details of the treatment system.

iv) Adequate measures should be taken to control noise pollution & vibrational activities during construction phase.

v) PP should ensure provision for additional 5% parking space along with the existing allotted 40% parking space as it is a commercial unit. Revised Layout for parking to be submitted.

vi) Detailed traffic study report duly vetted by an institute of repute.

vii) Dust control during construction period and also during transportation to outside by roads should be managed.

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

i) Environmental settings of the project site.

ii) Verify if the site is a flood prone area.

iii) Construction activity if any started at the site and extent of construction activity.

iv) Road connectivity to the project site.

v) Drainage network at the site.

vi) Discharge point for discharge of treated water and distance of the discharge point from the project site.

vii) Verification for additional parking space provision.

viii) Any other issues including local issues.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	IDCO allotment letter for the proposed land alloted as previously for Hotel and now change to IT park cum Food Court.	Allotment letter from IDCO for the change of activity from Four Star Hotel to IT Park vide letter no. HO/MSME/A-5451/01- 06/23 25832, dated 17.08.2023. IDCO allotment letter is attached in **Annexure- 1**.	Submitted.
2.	Drainage plan & water permission approved by IDCO.	Water permission has been obtained from IDCO vide letter no. IDCO/W/S&EC-1/D2- 113/20-21 218, dated 13.02.2024. Water permission letter is attached in **Annexure-2**. All infrastructure facilities like Road, Drain, Discharge of Water & Street Lightings has been provided by IDCO. The letter from IDCO regarding providing infrastructure facilities is attached in **Annexure-3**.	Submitted.
3.	The effluent generated form the HVAC should be treated prior to discharge or reuse. Details of the treatment system.	The effluent generated from HVAC system will be treated in Sewage Treatment Plant (STP) & treated water will be reused in system.	PP have not submitted the details of the treatment system for effluent generated from HVAC system.
4.	Adequate measures should be taken to control noise pollution & vibrational activities during construction phase.	Noise control measures during construction phase is attached in **Annexure-4**.	Submitted.
5.	PP should ensure provision for additional 5% parking space along with the existing allotted 40% parking space as it is a commercial unit. Revised Layout for parking to be submitted.	Total Parking area provided for the proposed building is 11,656.72 sqm which is 40% of the FAR area and additional 5% parking will be provided to visitor. Details parking plan is attached in **Annexure-5**.	Submitted.
6.	Detailed traffic study report duly vetted by an institute of repute.	Traffic Study Report has been vetted by Indian Institute of Technology (IIT) Bhubaneswar & the vetted traffic study report is attached in **Annexure-6.**	Expected V/C in the year 2033-2034(with the project) is 0.526, i.e., LOS is C.
7.	Dust control during construction period	Dust control measures during	Submitted.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	and also during transportation to outside by roads should be managed.	construction phase is attached in **Annexure-7**.	

26. The proposed site was visited by the sub-committee of SEAC on **02.03.2024**. Following are the observations of the sub-committee:

a) The land belongs to IDCO. There is road side drain.

b) The PP needs to submit the drain plan showing the fallout.

c) Permission to discharge excess treated water along with plan to treat organic waste.

d) Green belt (excluding land scape) to be minimum 20% and PP to plan for possible parking of plus 40% inside the premises.

e) All other points asked during presentation to be complied.

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

a) The PP needs to submit the drain plan showing the fallout.

b) Permission to discharge excess treated water along with plan to treat organic waste.

c) PP have not submitted the details of the treatment system for effluent generated from HVAC system. Details of the treatment system.

d) PP to submit revise layout confirming minimum 20% green belt (excluding land scape).

ITEM NO. 06

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR TAINSAR SAND QUARRY OVER AN AREA OF 48.42 ACRES OR 19.595 HA BEARING KHATA NO. 72, PLOT NO. 741 & 747(P) IN VILLAGE TAINSAR, TAHASIL ATHMALLIK, DISTRICT ANGUL OF SRI APOLLO KUMAR GARNAYAK - EC

1. This proposal is for Environmental Clearance for Tainsar Sand Quarry over an area of 48.42 acres or 19.595 Ha. bearing khata No. 72, Plot No. 741 & 747(P) in village Tainsar, Tahasil Athmallik, District Angul of Sri Apollo Kumar Garnayak.
2. **Category**: As Per EIA Notification, 2006 and subsequent amendments the project falls under Category B1 under Schedule of item of 1(a) - Mining of Minerals.
3. The Mining Lease has been granted vide letter no 764 dated 01.03.2021. The Successful Bidder is Sri Apollo Kumar Garnayak, At - Arakhakud, Thakurgarh, PS - Thakurgarh, District - Angul, Odisha.
4. The Mining Plan of Tainsar Sand Quarry has been approved by Deputy Director of Geology, O/o The Joint Director of Geology, Zonal Survey, Dhenkanal, Odisha vide letter no 1251 dated 20.11.2020.

5. This is a new mine and mining lease is an identified sairat source in the DSR Report Page no. 22 SL.No. 40.

6. The Terms of Reference (TOR) letter was issued by SEIAA, Odisha vide letter No. 3667/SEIAA Dated 27.12.2021.

7. **Location and connectivity**: The mine lease area is located in Village – Tainsar, Tahasil – Athmallik, District – Angul, and is on Khata No. 72, Plot No. 741 & 747 of Mahanadi River. The project covered in the Survey of India Topo Sheet No – F45S/5 & F45S/6 and the geo coordinates are : Latitudes - 20°44'45.0" N to 20°45'03.5" N and Longitudes – 84°24'40.5" E to 84°25'01.2" E. The Kisam of land is Nadi. The Nearest National Highway is NH-57 which is at a distance of approx. 6.00 km in SW direction. The Nearest State Highway is SH-62 which is at a distance of approx. 4.20 km in NE direction. The Nearest distance of approach road is 1.5 Km. The Nearest Airport is Biju Patnaik International Airport which is at a distance of approx. 156.00 km towards East direction. The Nearest Reserve Forest is Nuagan RF which is at a distance of 8.5 Km in NNE direction. The Nearest Road Bridge is near Singarimunda Road Bridge over Manjore River at a distance of 7.80 KM in NW. The Nearest Electric Transmission Line Pole is at a distance of 1.50 Km in NE direction from the Lease Area.

8. **Public Hearing** was conducted on 20.09.2022 at Tainsar village, under Athamallik Tahasil of Angul District, Odisha. Issues raised during public hearing are dust suppression and water pollution control provision for maintenance and repair of village roads and speed restriction during school timing and strict adherence of sand mining guideline. Budget allocated for Corporate Environmental Responsibility (CER) of Proposed Tainsar Sand Quarry is Rs.4,00,000 and Budget for Environmental Protection is Rs.767000 as capital cost and Rs. 333000 as recurring cost.

9. **Total Reserves and Proposed Production**: The total geological reserves is 195950cum and Mineable Reserves is 182066 cum and the Proposed Production for the Project is 15,000 cum/year.

Year	Vol. of Sand in (m^3)
1st	15,000
2nd	15,000
3rd	15,000
4th	15,000
5th	15,000
TOTAL	**75,000**

10. **Method of mining**: The Method of Mining will be opencast Manual Method. Extraction and loading into truck & Tractor will be done by manual means. The transportation from Sand Quarry site to destination shall be achieved by dumper/tractor. The Proposed depth of mining is 0.50 Meters as per approved mining plan.

11. **Replenishment study details**: The Replenishment study was done during Pre- and Post-Monsoon Period (June 2022 & January 2023) by Physical Method Survey which was conducted with the help of Total Station Survey Instrument and two numbers of GPS

(GARMIN eTrex 10) handheld GPS. After the Replenishment study it was found that 15,255 cum of sand have been proposed to be replenished annually.

12. **Water requirement**: Total Water Requirement is 13.00 KLD for proposed project.

Activity	Calculation	Round off Figure in KLD
Drinking	@ 10 lpcd per labor 10*16/1000= 0.16 KLD	0.16
Dust Suppression	**Total approach road to be water sprinkled = 1500 m** **1500 m*6m*0.5 *2 times/1000= 9.0 KLD**	9.0
Plantation	1960 plant (during plan period) @ 2 L/per plant= 1960*2lts= 3920/1000= 3.92 KLD	3.92
Total		**13.08**

13. **Baseline Study** conducted during March, 2022 to May, 2022.

a) **AIR ENVIRONMENT**

Ambient Air Quality Monitoring reveals that the minimum & maximum concentrations of PM10 for all the 7AQ monitoring stations were found to be 48.96 µg/m_3 at AQ_7 and 78.98 µg/m_3 at AQ_3, respectively. The minimum & maximum concentrations of $PM_{2.5}$ were found to be 25.91 µg/m_3 at AQ7 and 46.78 µg/m_3 at AQ_3, respectively.

As far as the gaseous pollutants SO_2 and NOx are concerned, the prescribed CPCB limit of 80µg/m_3 for residential and rural areas has never surpassed at any station. The minimum & maximum concentrations of SO_2 were found to be 6.39 µg/m_3 at AQ_7 & 11.21 µg/m_3 at AQ_3, respectively. The minimum & maximum concentrations of NO_X were found to be 10.17 µg/m_3 at AQ_7 & 16.98 µg/m_3 at AQ_3, respectively.

b) **WATER ENVIRONMENT**

Ground water: Analysis results of ground water reveal the following: -

- pH varies from 7.29 at GW3 to 7.56 at GW5 during study period.
- Total hardness varies from 276 mg/l at GW1 to 324 mg/l at GW2 during study period.
- Total dissolved solids vary from 293 mg/l at GW3 to 378 mg/l at GW1 during study period.

Surface water

- The analysis results indicate that the pH ranges between 7.42 and 7.86.
- Dissolved Oxygen (DO) was observed in the range of 5.7 to 5.9 mg/l against the minimum requirement of 4 mg/l.
- BOD values were observed to be in the range of 3.6 – 3.9 mg/l.
- The chlorides and Sulphates were found to be in the range.

- Based on the results it is evident that most of the parameters of the samples comply with 'Category 'B' standards of CPCB indicating their suitability for Drinking water source after conventional treatment and disinfection.

c) **NOISE ENVIRONMENT**

Noise monitoring reveals that the maximum & minimum noise levels at day time were recorded as 58.6 Leq. dB (A) at NQ1 & 48.1 dB (A) at NQ2, respectively. The maximum & minimum noise levels at night time were found to be 42.4 dB (A) at NQ6 & 36.2 dB (A) at NQ2.There are several other sources in the 10 km radius of study area, which contributes to the local noise level of the area. Traffic activities as well as activities in nearby villages and agricultural fields add to the ambient noise level of the area.

d) **SOIL ENVIRONMENT**

Samples collected from identified locations indicate the soil is sandy type and the pH value ranging from 6.89 to 7.67, which shows that the soil is alkaline in nature. Potassium is found to be from 72.36 mg/kg to 84.69 mg/kg. The water holding capacity is found in between 28.72 % to 36.25 %.

14. **Greenbelt development:** Total 1960 plants has been proposed for the Proposed Project.

Year	No of plants along both side of approach road	No. of plants in buffer zone consulting local authorities	Location	Species
1st	1500	460	Approach road –1500 nos – along both sides 1.5 km of approach road at spacing of 2 m. Village area – 460 nos. In village area like school premises, Aangawadi, Panchayat bhavan	
2nd	Maintenance	Maintenance		Guava, mango, Jamun, jhaun, neem etc.
3rd				
4th				
5th				
Total	1500	460	---	---
Total	**1960**		---	---

15. **Manpower:** 16 nos of persons will be required as manpower for the proposed project.

16. **Project cost:** Estimated cost of the proposed Project is 2.0 Crores. EMP Cost includes a Capital cost of Rs. 7.67 Lakhs and Recurring cost of Rs. 3.33 Lakhs.

Sl. No.	Measures	Capital Cost (In Rs.)	Recurring Cost (In Rs.)
i)	Pollution Control Dust Suppression /Water Sprinkling	--	50,000
ii)	Pollution Monitoring i) Air pollution ii) Water pollution	--	50,000 40,000 20,000 10,000

	iii) Soil Pollution iv) Noise Pollution		
iii)	Green belt development	3,92,000	1,00,000
iv)	Maintenance of haul road	3,75,000	63,000
	Total	7,67,000	3,33,000

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

18. The SEAC in its meeting dated **29-08-2023** decided to take the decision on the proposal after receipt of the following from the proponent.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	In Form-F, the area mentioned is 50.80 acres and for Environmental Clearance the area applied is 48.42 acres. Discrepancy in area needs clarification, with revise Form-F to be submitted accordingly.	Letter from Tahasildar, Athamalik (vide letter no. 627 dtd. 23.04.2024) has been submitted regarding field enquiry report along with Land Schedule of Tainsar Sand Quarry by Revenue Inspector, Madhapur vide letter no. 72 dtd. 20.04.2024.	Earlier proposal was of 50.80 acres which has been reduced to 48.42acres due to all season stream flowing through an area of 1.04ac.
2.	Furnish the exact dates of Replenishment Study Survey.	Replenishment Study Survey during Pre-Monsoon Period(06.06.2022) & Post monsoon period (05.01.2023)	Dates have been submitted.

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

i) Amended EIA Notification dated 25th July, 2018, Guidelines for sustainable sand mining, 2016 and Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India shall be adhered to in execution of Mining as per **Annexure – E**.

ii) Sand extraction shall be limited to 15225 cum replenished volume and 0.45 m depth as per replenishment study report for only the first year of mining. Regular replenishment study as per guidelines to be conducted and report to be submitted.

iii) Provision of Bio-toilet shall be made at the site.

iv) Avenue plantation and plantation on both sides of the haulage road in consultation with/ on the advice of concerned Forest Department, Government of Odisha & W.R. Department Government of Odisha as well.

v) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.

ITEM NO. 07

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR BAITARANI RIVER SAND BED, GOUDADIHA OVER AN AREA OF 12.50 ACRES OR 5.058 HA HAVING KHATA NO. 217, PLOT NO. 1/1 IN VILLAGE GOUDADIHA UNDER ANANDAPUR TAHASIL OF KEONJHAR DISTRICT OF SRI SUBASH CHANDRA ROUT - EC

1. This proposal is for Environmental Clearance for Baitarani River Sand Bed, Goudadiha over an area of 12.50 Acres or 5.058 Ha having Khata No. 217, Plot No. 1/1 in village Goudadiha under Anandapur Tahasil of Keonjhar District of Sri Subash Chandra Rout.
2. **Category**: As per EIA Notification,2006 and its subsequent amendments, the proposed project falls under Category B in Schedule in item 1(a)- Mining of Minerals.
3. The Quarry lease is granted in the name of Sri Subash Chandra Rout, S/o-Shri Kailash Rout for a lease period of 5 (five) years.
4. The Mining plan has been approved for a period of five years by the Joint Director of Geology, Keonjhar. Vide letter no – 707.Dt dated 28/04/2021 in favour of Tahsildar, Anandapur.
5. **TOR details**: Terms of Reference (ToR) was issued by SEIAA, Odisha vide Letter no. -3671/SEIAA, on dated 27/12/2021.
6. **Public hearing details**: Public hearing was conducted on 03.10.2023 at 10.30 AM at Village Goudadiha under Anandpur Tahasil of Keonjhar District, Odisha. Environment Protection measures was the main issue in Public Hearing, funds has been merged with environment management plan as per OM F. No. 22-65/2017-IA.III, dated 30.09.2020 issued by MoEF&CC
7. **Location and connectivity**: The mine lease area is located at Khata No -217, Plot No-1/1 in Village-Goudadiha, Tahasil-Anandapur and District-Keonjhar. The Kisam of the site is Nadi. It is bounded by Latitude: N21°17'14.9"to N21°17'27.8" & Longitude: E86°05'0.8"to E86°05'8.2" bearing Topo-Sheet no. F45O3 of Survey Map of India. The nearest village is Goudadiha about 1 km, E, Nearest Town/City-Anandapur about 9.74 km, Nearest Railway Station-Sagadapata Railway Station 19 Km, W, Nearest Airport-Biju Patnaik International Airport, Bhubaneswar about 119 km, S, Nearest Highway-SH- 53 is 1.0 km, Nearest NH-NH- 215 is 0.6 km, W. There is no Ecology Sensitive Zone/ national parks and sanctuary within 10 km radius. The nearest Reserve Forest is Satkosia Reserve Forest about 4 km, ENE. It falls under Sesmic Zone– II as per IS: 1893 (Part-I): 2002. Nearest distance of Approach Road-0.6k.m, Nearest water body -Baitarani River, Nearest Habitation-Goudadiha about 1.0km.
8. **Total Reserves and Proposed Production**: As per MGQ certificate given by Competent Authority the proposed production is 21,445cum/Year.

As per Approved Mining Plan		**As per Approved Mining Plan**
Geological Reserve	Mineable Reserve	Production
1,26,450cum	1,07,225cum	21,445cum/Year

9. **Replenishment study details**: The Study was carried out for pre-monsoon data on

13.06.2023 and post monsoon data on 28.11.2023 by using UAV/ Drone method as per the SSMG, 2020. Average thickness during Pre-monsoon period measured from contour value of 562 numbers of grid points-58.84731317m & average thickness during Post-monsoon period is 59.34761566m. Deposit of sand thickness is 59.34761566m - 58.84731317m=0.500302491 or says 0.5m. As, per the calculation, 10978.8215 m^3 sand has been replenished.

10. **Baseline study details**: Baseline study of the study area was conducted during winter season from 1st October 2021 to 31 December 2021 for Baitarani River Sand Quarry, Goudadiha..

    a) **Air quality**: The AAQ analysis indicates that the concentration of PM_{10} varied from 61.2 to 86.5 µg/m^3, $PM_{2.5}$ from 18.6 to 27.7 µg/m^3, SO_2 from 6.9 to 10.3 µg/m^3, NOx from 10.4 to 15.4 µg/m^3.

    b) **Surface water quality:** All samples were colourless meeting desirable norms. All samples meet the desirable standards (pH ranges from 6.98-7.86). TDS in samples ranges from 29 mg/l to 98mg/l. All the samples meet the permissible limit of 2000 mg/l. Total hardness in the water ranges from 16 mg/l to 57 mg/l. All the samples meet the permissible limit of 600mg/l. Calcium content in the water ranges from 3.28 mg/l to 16.38 mg/l, all the samples meet the permissible limit of 200 mg/l. Magnesium content in the water ranges from 1.4 mg/l to 3.97mg/l, all the samples meet the permissible limit of 100 mg/l.

    c) **Ground water quality**: The ground water analysis for all the 7 sampling stations shows that pH varied from 6.72 to 7.28, total hardness varied from 159 mg/l to 269 mg/l & total dissolved solids varied from 101mg/l to 244 mg/l. The water samples contain chloride 9.14 mg/l to 28.93 mg/l, Ca from 21.47mg/l to 40.28mg/l, Magnesium varies from 1.92 mg/l to 6.89 mg/l.

    d) **Noise study**: Noise level varies from 51.2 dB (A) Leq to 63.5 Leq dB (A) during Day time and 32.8 dB (A) Leq to 42.9 Leq dB (A)during Night time, which are below the prescribed limits of CPCB.

    e) **Soil quality**: All soil samples indicate pH value ranging from 6.92.-7.25.Organic Matter ranges found BDL in the soil samples. Nitrogen is found BDL and Phosphorous in less amount i.e. from 0.14 mg/kg- 0.62 mg/kg, whereas the Potassium is found to be ranging from 150 mg/kg -299 mg/kg.

11. **Mining method:** The mining of sand will be done by open cast manual method for excavation. The maximum capacity is 21,445 m^3/year.

12. **Water requirement**: Total water approx, 25 KLD will be required for different purposes like Domestic, Dust suppression, plantation purposes & sourced as per the availability.

13. **Greenbelt development**: Plantation of 50 trees/year will be carried out for the proposed project.

14. **Manpower requirement**: Total 36 nos of manpower will be required for the proposed project.

15. **Project cost**: Total cost of the proposed project is ₹1 crore. A capital cost of ₹2,50,000 is proposed as EMP cost & ₹1,30,000 as EMP recurring cost.

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

17. The SEAC in its meeting held on dated **17-05-2024** decided to take decision after receipt of the following from the proponent.

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th><th>Views of SEAC</th></tr>
<tr><td>1.</td><td>Submit the RL of the riverbank and RL of the surface of the river water.</td><td>RL values of Surface water with co-ordinates & RL values of River Bank areas with co-ordinates taken for reference to measure sand Thickness is given below.
<table>
<tr><th>SL. NO. OF GCP</th><th>LONGITUDE</th><th>LATITUDE</th><th>ELEVATION</th></tr>
<tr><td>GCP1</td><td>86°05'03.67"</td><td>21°17'15.08"</td><td>63.012M</td></tr>
<tr><td>GCP2</td><td>86°04'58.81"</td><td>21°17'18.67"</td><td>58.126M</td></tr>
<tr><td>GCP3</td><td>86°04'54.72"</td><td>21°17'22.17"</td><td>63.524M</td></tr>
<tr><td>GCP4</td><td>86°05'07.20"</td><td>21°17'11.46"</td><td>58.048M</td></tr>
<tr><td>GCP5 (River Bank)</td><td>86°05'05.89"</td><td>21°17'25.85"</td><td>64.148M</td></tr>
<tr><td>GCP6 (Bank River)</td><td>86°05'08.71"</td><td>21°17'16.92"</td><td>67.045M</td></tr>
</table></td><td>The PP has submitted the Ground control points, latitude, longitude and elevation.</td></tr>
<tr><td>2.</td><td>Submit the errors in the measurement of geolocation points (Latitude / Esting (X), Longitude / Nothing (Y) & azimuth / elevation (Z)) in the pre and post monsoon drone surveys mentioned in the Replenishment Study Report.</td><td>Errors in the measurement of geo-location with Easting, Northing and Azimuth were attached in Replenishment Report in the Annexure no. III & IV.</td><td>-</td></tr>
<tr><td>3.</td><td>The safe workable area mentioned in the submitted replenishment study report were found to be different from the mineable area stated in the approved mining plan. The RL of the riverbed sand surface in the ML area were also found to be different from that mentioned in the approved mining plan. The project proponent is required to submit the revised approved mining plan after</td><td>The safe workable area has been considered during the Post-monsoon condition of the lease area. Though the Mining Plan was prepared and approved in the year 2021, the surface area for calculation of sand deposit may differ considering the water flow area. In the Present situation out of total lease area of 50,585 m2 area, Water cover area is 13740m2 and sand deposited area is 21944.367m2& 14897.893m2 area is no mining zone in post monsoon. Out of total sand deposited area of 50582.26m2, Only 21944.367m2 area has been considered for safe mineable area by taking all safety measures from lease safety zone and water safety zone.
I do hereby undertake to submit the revised the Modified Mining Plan as per the present status of</td><td>The undertaking to submit the Revised mining plan is not submitted as mentioned in ADS.</td></tr>
</table>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	reconciling the above-mentioned discrepancies.	River bed sand deposit and RL values considered during Replenishment Study period.	
4.	Submit an explanation regarding the discrepancy in the highest level of elevation as shown in the replenishment level calculation table (Pre and post monsoon geo location surface RLs of the riverbed sand in the ML area) of the replenishment study report.	During the thickness/elevation calculation, all the grid point values processed through software were taken for the estimation in and outside the lease area. A revised calculation table for elevation calculation only inside the lease area now has been considered with a perfect geo-coordinate values. The details of output of RL values given by the software now has been accorded and also calculated for reserve estimation. Revised Replenishment Study Report is enclosed for your kind reference.	Replenishment study report is submitted.

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

i) Amended EIA Notification dated 25th July, 2018, Guidelines for sustainable sand mining, 2016 and Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India shall be adhered to in execution of Mining as per **Annexure – E**.

ii) Sand extraction shall be limited to quantity and depth as per replenishment study report. Regular replenishment study as per guidelines to be conducted and report to be submitted.

iii) Provision of Bio-toilet shall be made at the site.

iv) Avenue plantation and plantation on both sides of the haulage road in consultation with/ on the advice of concerned Forest Department, Government of Odisha & W.R. Department Government of Odisha as well.

v) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.

ITEM NO. 08

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. LAXMI INFRA VENTURE (P) LTD FOR PROPOSED S1+S2+S3+10 FLOORS (BLOCK-A & B) AND S1+S2+S3+18 FLOORS (BLOCK-C & D) MULTI-STORIED RESIDENTIAL APARTMENT BUILDING (MIG CATEGORY), OVER PLOT NO-2810/15121, 2808/15127, 2807, 2800, 2798 & 2799/15866, OVER AN BUILT-UP AREA –38015.17 M2 KHATA NO-1330/9654 MOUZA-PANDARA, BHUBANESWAR, DIST- KHURDHA BY GPA HOLDER M/S. LAXMI INFRA VENTURES PVT. LTD. REPRESENTED BY SRI RAJESH KUMAR NAYAK - EC

1. This proposal is for Environmental Clearance of M/s. Laxmi Infra Venture (P) Ltd for Proposed S1+S2+S3+10 floors (Block-A & B) and S1+S2+S3+18 floors (Block-C & D) Multi-storied Residential Apartment building (MIG Category), over Plot No-2810/15121, 2808/15127, 2807, 2800, 2798 & 2799/15866, over an Built-up Area – 38015.17 m^2, Khata no-1330/9654 Mouza-Pandara, Bhubaneswar, Dist- Khurdha by GPA Holder M/s. Laxmi Infra Ventures Pvt. Ltd. represented by Sri Rajesh Kumar Nayak.
2. **Category**: As per EIA Notification 2006 and subsequent amendment, the proposed project falls under Category B under Item 8(a) Building and Construction projects.

3. The proposed project has been approved by Bhubaneswar Municipal Corporation vide letter no 57693 dated 09.12.2022.

Statutory clearances:

Sl. No.	Particulars	Letter No. / Application No.
1.	Fire Safety Recommendation No. Application No.	RECOMM1204130012023001025 FSR1204130012023000004
2.	NoC from TPCODL	TPCODL letter No. 4308 on dated 07th 2022
3.	NoC for Own Water Supply & Sewerage Connection System	PHD Division, Bhubaneswar letter no. 176 on dated 07/01/2023
4.	Height Clearance NoC from AAI	BHUB/EAST/B/102121/629810
5.	NoC for Ground Water Abstraction	CGWA/NOC/INF/ORIG/2023/18149 on dated 11/04/2023
6.	Approval letter from BMC	BP-BMC-2022-06-21-004957 Letter No-57693/dated 19/09/2022
7.	Structural Stability Certificate	Registration no. RTP/DTP(ST.ER)-092/2018 Valid upto 10/05/2024
8.	Permission for construction of V.R Bridge at RD 13.95 Km. of Lingipur Distributary, Mouza - Pandra for access to Plot No. 2807, 2808, 2810, 2798, 2799 over Sabak Khata No. 426, Hal Khata No. 297 Mouza - Pandra, Tahalil - Bhubaneswar,	Letter no. -6908/we on dated 27/11/2019

4. **Location and connectivity**: The area is located in Survey of India Topo sheet No. F45T15 bearing Plot No-2810/15121, 2808/15127, 2807, 2800, 2798 & 2799/15866, Khata no-1330/9654. Geographical coordinates for the project site are latitude of $20^0$18'15.37N and longitude - 85^0 52' 28.11"E. The kisam of the plots are Ghrabari. The project site is at a distance of 5.2 Km-W from NH-16/AH-45, 1.20 Km –E from Nandankanan Road. Site is flat land with average elevation of 20-21m AMSL. Project site is well connected with New Hitech Road which connects to NH-16 at the distance of 62 m. North direction. Proposed project site also connects to NH-316 (Bhubaneswar-puri Highway) at Pandara Square about 1.3 km-SW to the project site. Vanivihar Railway station is 2.55 Km - SSW away from Project site. Mancheswar Railway Station is 3.61 km away in North-West. Bhubaneswar railway station is 5.27 km away in South-West. Biju Patnaik International Airport 8.34 km in South West. Nearest water body is Gangua Nala at 0.24km. Nearest assess to building as per the plan, the proposed building abuts on a road of width 12.19 mtrs. at front side of the proposed building, which shall be made as per Rule-31 of Odisha Development Authorities (Planning and Building Standards) Rules,

2020. Besides, a culvert has been shown in the proposed building plan, the same shall be of width 12 mtrs for access to the premises.

5. The project falls under seismic zone-III as per IS1893 (Part-1):2002 indicating Moderate to lower damage risk zone. The buildings will be designed as earthquake resistant and comply with the required IS specifications.

6. **Area details**: Plot area of project is estimated to be 7104.23 sqm, or 1.755 Acres or 0.7104 Ha. & the Built-up Area is estimated to be 38015.17 **sqm.**

AREA STATEMENT	
Particulars	**Area (in m^2)**
TOTAL PLOT AREA	7104.23
Ground Coverage Required(40% of plot area)	2841.7
Area Of Ground Coverage Achieved (39.83% of plot area)	2829.75
STILT FLOOR-1	
BUILT UP AREA	2781.93
EXEMPTION AREA (FIRE TOWER)	129.24
STILT FLOOR-1 AREA FOR FAR	2652.69
BLOCK-A,B,C &D SERVICES AREA (EXEMPTION AREA IN PARKING)	36.46
STILT FLOOR-1 PARKING AREA	2616.23
STILT FLOOR-2	
BUILT UP AREA	2781.93
EXEMPTION AREA (FIRE TOWER)	129.24
STILT FLOOR-2 AREA FOR FAR	2652.69
BLOCK-A,B,C &D SERVICES AREA (EXEMPTION AREA IN PARKING)	81.62
STILT FLOOR-2 PARKING AREA	2571.07
STILT FLOOR-3	
BUILT UP AREA	2688.11
EXEMPTION AREA (FIRE TOWER)	129.24
STILT FLOOR-3 AREA FOR FAR	2558.87
BLOCK-A,B,C &D SERVICES AREA RAMP & SOCIETY AREA(EXEMPTION AREA IN PARKING)	264.55
STILT FLOOR-3 PARKING AREA	2294.32
NET FAR AREA (BLOCK -A)	3836.36
NET FAR AREA (BLOCK -B)	4811.13
NET FAR AREA (BLOCK -C)	9503.97
NET FAR AREA (BLOCK -D)	10194.6
TOTAL NET FAR AREA(including stilt floor-1,2 &3 service area)	28346.06
GRAND TOTAL B.U.A	**38015.17**
FAR	3.99
Total No Of Dwelling Units	223

AREA STATEMENT	
Particulars	**Area (in m^2)**
NO Of Recharge pit(Required)	21
NO Of Recharge pit(provided)	25
Plantation Required @1 Tree Per every 80sqm of plot area	109
SOCIETY AREA (REQUIRED)	223
SOCIETY AREA (PROVIDED)	231.37

7. **Water requirement:** Total water requirement of the project is expected to be 180 KLD approximately; out of which fresh water requirement is 120KLD. Domestic: 120 KLD and Flushing: 60 KLD. The source of water is PHED for which PP has obtained No objection certificate from PHD, Bhubaneswar vide letter no. 176 on dated 07.01.2023. There is also provision for groundwater for standby for which PP has applied to CGWB and got the NOC from CGWB vide NOC no. CGWA/NOC/INF/ORIG/2023/18149 with Date of Issuance: 11/04/2023 which is valid up to 10/04/2028.

8. **Waste water generated and its management**: The total waste water generated is 144KLD which will be treated in STP of capacity 160KLD. Treated water recovered is 115KLD which will be used in Gardening – 40KLD, DG Set cooling – 15KLD and 60 KLD in Flushing water. The PP has mentioned there is a provision for zero discharge concept in Dry season.

9. For Rainy season, the fresh water requirement of 120 KLD will decrease from 120 KLD to 30 KLD by availing it from roof top storm water collection - 90KLD and 30KLD from Bore well/supply water. Discharge to nearest Drain will be 40 KLD.

10. **Greenbelt:** About 100 trees of 8 types of species (Neem, Peepal, Mango, Shisham, Sirish, Babool, Gulmohar or local plants as per the advice of forest officers) will be planted both inside the project area and all along the boundary to create a boundary of greenery.

Area Component	Area in Sqm
Total Plot area (sqm)	7104.23
Green area required@ 20 % of Plot area (sqm)	1,420.84
Green area provided@ 22.43% of Plot area (sqm)	1952.35
Required number of trees @ 1 tree per 80 sq.m. of plot area	89 trees
Number of trees Proposed (No. of trees planted in around the road and peripheral boundary line)	110

11. **Solid waste management:** The solid waste generated from project will be mainly domestic in nature and the quantity of the waste will be 0.614 Ton/day. Solid wastes generated will be segregated into biodegradable 0.246 T/Day (waste vegetables and foods etc.) and Non-biodegradable or recyclable 0.368 Ton/day (papers, cartons, thermo-col, plastics, glass etc.) Components will be collected in separate bins. The biodegradable organic wastes will be treated inside the premises by OWC (Organic Waste Converter) of capacity to treat 250 kg/day. Recyclable and non-recyclable wastes will be disposed through Govt. approved agency.

12. **Power requirement**: The power supply shall be supplied by TPCODL. The maximum demand load is estimated at 1341 KW or 1578 KVA. Permission for Electrical supply to

the proposed project site is received from office of the Divisional Manager (Electrical) through Letter No:-4308 on dated 07/---/2022.There is provision of Power backup for the residential project will be through DG sets of total capacity. 1 Nos. 250KVA+1 Nos. 320 0KVA, 415Volts DG Sets with acoustic enclosure with DG Synchronisation with DG Set Stack of 65 m.

13. **Solar energy details**:

Total Connected Load in kW	1734.2 KW
Solar Power Required in kW @ 5% of the Connected Load	86.7KW
Solar Power In kW to be generated by Roof Top Solar Panels	87KW
No. of Solar panels required (300W to 400W capacity)	62NOS
SUGGESTED SOLAR SYSTEM: 62 Nos. of Solar Panels suitable for 87 KW LOAD	

14. **Waste management**: Around 2 KLD effluent will be generated which will be treated in septic tank followed by soak pits.27 kg/day solid waste (peak) will be generated during construction phase and will be disposed through waste handling agency.

15. **Rain water harvesting** - 10 nos of recharge pits for collection of storm water at selected locations will be provided, which will catch the maximum surface run-off water and roof water and will be stored in a storage tank having capacity of 90 m^3.

16. **Parking details**:

Facilities	Area in Sqm
Parking Area Required(25% Of B.U.A)	7086.51
Parking Area (Provided)	7332.82
Covered Parking(In Stilt Floor-1 (Block-A+B+C+D)	2616.23
Covered Parking(In Stilt Floor-2 (Block-A+B+C+D)	2571.07
Covered Parking(In Stilt Floor-3 (Block-A+B+C+D)	2294.32
Stack Parking	103.5
Open Parking	458.35
Visitor's Parking Required@10% Of Total Parking)	708.64
Visitor's Parking (Provided)	710.65
Electric Charging Point(Required @30% Of Total Parking)	2413.04
Electric Charging (Provided)	2400
Total parking Area (Provided)	8043.47
Total Car Parking No.S (Provided)	250
Total Bike Parking No.S (Provided)	175

17. **Project cost**: Estimated cost of the project is 76.50 Cr. EMP Capital Cost is 91 Lakh and Recurring Cost /Annum is 3.1 Lakh

Table: EMP cost

Source	Capital Cost (In Lacs)	Recurring Cost (In lacs)
Landscaping	10	0.5

Source	Capital Cost (In Lacs)	Recurring Cost (In lacs)
Rain Water Harvesting	10	0.2
Solid Waste Management	8	0.5
STP	50	1.2
Acoustic Enclosure & DG Set Stack	10	0.2
Environmental Monitoring	3	0.5
Total	**91**	**3.1**

18. **Environment Consultant**: The Environment consultant **M/s Visiontek Consultancy Services Pvt. Ltd, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee on 13.06.2023.

A. The SEAC in its meeting held on dated **13-06-2023** recommended the following: **The proponent may be asked to submit the following for further processing of EC application:**

a) Permission letter for constructing approach road bridge over Prachi Canal for transportation.

b) Permission from BMC to use nearest public drain to discharge treated water.

c) Undertaking by the Project Proponent to use PHED water when available to the area and extraction of water from groundwater should be minimal.

d) Relook at the possibility to increase parking area as per the parking norms and calculation of parking area should be given in percentage as well as area wise.

e) Details of solar power generation and consumption.

f) Relook at the water discharge calculation.

g) Revisit the water balance for Dry season as there is deficit of 29KLD and according to the Project Proponent in dry season a Zero Liquid Discharge concept will be obtained.

h) RL of the bottom of the rainwater discharge pit as well as RL of ground water table during rainy and summer season.

i) Detail plan of drainage for discharging excess treated sewage water.

j) Source of water for use during construction phase.

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.

Proceedings of the SEAC meeting held on 03.07.2024 (Old proposals – compliance received)

Jnayak
Environmental Scientist, SEAC

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.

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
1.	Permission letter for constructing approach road bridge over Prachi Canal for transportation.	Permission for construction of V.R Bridge at RD 13.95 Km. of Lingipur Distributary, Mouza - Pandra for access to Plot No. 2807, 2808, 2810, 2798, 2799 over Sabik Khata No. 426, Hal Khata No. 297 Mouza - Pandra, Tahalil – Bhubaneswar. Permission letter no: 6908/we on dated 27/11/2019 is attached as **Annexure- (a).**
2.	Permission from BMC to use nearest public drain to discharge treated water.	We already received of NOC for Water Supply & Sewerage Connection to the proposed Block-(A) SI+S2+S3+10, Block (B) SI+S2+S3+10, Block (C)SI+S2+ S3+18, Block (D)SI+S2+S3+18 Multi storied residential apartment building (MIG Category) over Plot No. 2810/15121, 2808/15127, 2807, 2800, 2798 & 2799/15866 & Khata No. 1330/9654 in Mouza: Pandara, Bhubaneswar from Office of the Superintending Engineer PHD,BBSR vide letter no. 176 Dated 07/01/2023 which is attached as **Annexure (b).**
3.	Undertaking by the Project Proponent to use PHED water when available to the area and extraction of water from groundwater should be minimal.	The water requirement of 120 KLD will be supplied by PHED) water supply system. Presently there is no municipal (PHED) water supply system located near our project site. There will be no provision of sourcing the same from any other Supply water/surface water body. Hence we will meet the daily fresh water requirement through ground water during the operation phase. We got the no objection certificate from PHD, Bhubaneswar vide letter no. 176 on dated 07.01.2023. We applied to CGWB for ground water and finally we got the NOC from CGWB vide NOC no. CGWA/NOC/INF/ORIG/2023/18149. We will use PHED water when available to the area and extraction of water from groundwater should be minimal. Undertaking is attached as **Annexure-C.**
4.	Relook at the possibility to increase parking area as per the parking norms and calculation of parking area should be given in percentage as well as area wise.	Parking area provided as per ODA Norms. Parking layout as per are attached as **Annexure-(d).**

FACILITIES	AREA IN SQM
Parking Area Required(25% OF B.U.A)	7086.51
Parking Area (Provided)	7332.82
Covered Parking(In Stilt Floor-1 (Block-A+B+C+D)	2616.23

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</table>
</td></tr>
<tr><td>5.</td><td>Details of solar power generation and consumption.</td><td>SOLAR PANEL SIZING (IN KW) AND SOLAR POWER GENERATION.
The Solar Power Demand For Campus area Light , Main Gate Light will be 87 KW (5% of total demand)
SUGGESTED UPS FOR EMERGENCY LIGHTING : 1 x 8KVA, 1Phase Input / 1Phase Output with 90 Minutes backup
Selection of SOLAR SYSTEM:
Total Connected Load in Kw:-1734.2 KW
Solar Power Required in kW @ 5% of the Connected Load 86.7 KW
Solar Power In kW to be generated by Roof Top Solar Panels 87KW
No. of Solar panels Required (300W to 400W capacity) : 62 NOS
SUGGESTED SOLAR SYSTEM : 62 Nos. of Solar Panels suitable for 87 KW load</td></tr>
<tr><td>6.</td><td>Relook at the water discharge calculation.</td><td>Total water requirement of the project is expected to be 180 KLD approximately; Domestic: 120 KLD (source: rain water harvesting-90 KLD and 30 KLD which will be sourced from Bore well/supply water. (Makeup Water of 90KLD will be managed from roof top Storm water collection.
Reuse of treated waste water (Zero discharge norms will be followed during dry season)
Flushing: 60 KLD</td></tr>
</table>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		Greenbelt : 40 KLD During rainy season Fresh water requirement will be decreases from 120 KLD to 30 KLD which will be sourced from Bore well/supply water. (Makeup Water of 90KLD will be managed from roof top Storm water collection. **Only 40 KLD of treated water will be discharge to nearest Drain.**
7.	Revisit the water balance for Dry season as there is deficit of 29KLD and according to the Project Proponent in dry season a Zero Liquid Discharge concept will be obtained.	As per NBC the quantity of waste water generate from dwelling units and other facilities should be 80 to 90% of the raw water. So that the waste water recovered after treatment is 115 KLD. Total water requirement of the project is expected to be 180 KLD approximately; Domestic: 120 KLD (source: rain water harvesting-90 KLD and 30 KLD which will be sourced from Bore well/supply water. (Makeup Water of 90KLD will be managed from roof top Storm water collection. **Reuse of treated waste water (Zero discharge norms will be followed during dry season)** Flushing: 60 KLD Greenbelt : 40 KLD During rainy season Fresh water requirement will be decreases from 120 KLD to 30 KLD which will be sourced from Bore well/supply water. (Makeup Water of 90KLD will be managed from roof top Storm water collection. Only 40 KLD of treated water will be discharge to nearest Drain.
8.	RL of the bottom of the rainwater discharge pit as well as RL of ground water table during rainy and summer season.	As per the soil testing report, the water level depth is given below In BH NO-01:-2.30m, BH NO-02: 2.40m, BH NO-03:2.40m and BH NO-04:2.35 m As per India-WRIS, The water level of the project area during pre-monsoon -5.14 mbgl, post monsoon:-3.72 mbgl and during monsoon -2.2 mbgl Annual average water level is 3.71 mbgl. The Capacity of the recharge pit is designed to retain runoff from at least 15 minutes rainfall of peak intensity. (10 recharge pit will be required having capacity of 6 cum according to CGWB norms. Drawing and design report for excess treated waste water and storm water has been approved by EIDP, Bbhubaneswar. attached as **Annexure- (h)**
9.	Detail plan of drainage for discharging excess treated sewage water.	Drawing and design report for excess treated waste water and storm water has been approved by EIDP, Bhubaneswar attached as **Annexure- (h)**
10.	Source of water for use during	

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	construction phase.	

20. The proposed site was visited by the sub-committee of SEAC on **21.08.2023**. Following are the observations of the sub-committee:

a) PP and consultant team were present and explained the layout.

b) There are no construction activities undertaken at project site.

c) The site is connected with a public road on prachi canal. PP stated that the excess rain water/ treated water from project site will be discharged to Gangua nallah. It is observed that the land between Project site and Gangua nallah is not part of the project site. PP has to submit detail of land schedule showing ownership of the land along the proposed drain to Gangua nallah and obtain NOC from the landowner for construction of such drain.

d) The PP has to submit the layout showing the drainage network starting from building site to natural nallah. The drain design needs to be prepared and approved by appropriate authority considering the data of RLs of bottom of drain at strategic locations and invert level of natural nallah, the run off calculations during highest rain fall, so that the area is not flooded with rain water during heavy rainfall. The maximum ground water level vs proposed ground level, the parking area, RWH etc. (after construction) needs to be considered taking into account the maximum rainfall of the area for adequate structural stability

e) PP need to submit the documents in support of building approval application, Fire NOC / recommendations, fire fighting provisions and fire corridor.

21. The SEAC in its meeting held on **17-11-2023** 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
1.	The site is connected with a public road on prachi canal. PP stated that the excess rain water/ treated water from project site will be discharged to Gangua nallah. It is observed that the land between Project site and Gangua nallah is not part of the project site. PP has to submit detail of land schedule showing ownership of the land along the proposed drain to Gangua nallah and obtain NOC from the	Permission letter for constructing approach Road Bridge over Prachi Canal for transportation. Permission for construction of V.R Bridge at RD 13.95 Km, of Lingipur Distributary Mouza – Pandra for access to Plot No. 2807,2808,2810,2798, 2799 over Sabik Khata No. 426, Hal Khata No. 297 Mouza – Pandra, Tahasil-Bhubaneswar. Permission letter no. 6908/we on dated 27/11/2019 is	The query raised was to submit detail of land schedule showing ownership of the land along the proposed drain to Gangua nallah and obtain NOC from the landowner for construction of such drain. Here PP has submitted only permission to construct the Road Bridge over Prachi Canal for transportation.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	landowner for construction of such drain.	attached as **Annexure – (a)**	
2.	The PP has to submit the layout showing the drainage network starting from building site to natural nallah. The drain design needs to be prepared and approved by appropriate authority considering the data of RLs of bottom of drain at strategic locations and invert level of natural nallah, the runoff calculations during highest rain fall, so that the area is not flooded with rain water during heavy rainfall. The maximum ground water level vs proposed ground level, the parking area, RWH etc. (after construction) needs to be considered taking into account the maximum rainfall of the area for adequate structural stability.	As per the soil testing report, the water level depth is given below In BH NO-01:-2.30m, BH NO-02: 2.40m, BH NO-03: 2.40m and BH NO-04: 2.35m As per India – WRIS, The water level of the project are during pre-monsoon -5.14 mbgl, post monsoon: -3.72 mbgl and during monsoon -2.2 mbgl Annual average water level is 3.71 mbgl The capacity of the recharge pit is designed to retain runoff from at least 15 minutes rainfall of peak intensity. (10 recharge pit will be required having capacity of 6 cum according to CGWB norms). Approved by FIDP, Bhubaneswar, attached as **Annexure – (h)** We already received of NOC for water Supply & Sewerage Connection to the proposed Block – (A) s1+s2+s3+10, Block (B) S1+S2+S3+10, Block (C) S1+S2+S3+18, Block (D) S1+S2+S3+18 Multi storied residential apartment building (MIG Category) over plot no. 2810/15121, 2808/15127, 2807,2800, 2798 & 2799/15866 & Khata No. 1330/9654 in Mouza: Pandara, Bhubaneswar from Office of the Superintending Engineer PHD, BBSR vide letter no.176/ Dated 07/01/2023 which is attached as **Annexure (b)**.	The query raised was to submit the layout showing the drainage network starting from building site to natural nallah.
3.	Source of water for use during construction phase.	The water requirement during the construction phase will be	-

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		met from private water tankers.	

22. The SEAC in its meeting held on **29-04-2023** decided to take the decision on the proposal after receipt of the following from the proponent raised during site visit:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	The site is connected with a public road on Prachi canal. PP stated that the excess rain water/ treated water from project site will be discharged to Gangua nallah. It is observed that the land between Project site and Gangua nallah is not part of the project site. PP has to submit detail of land schedule showing ownership of the land along the proposed drain to Gangua nallah and obtain NOC from the landowner for construction of such drain.	Permission letter for constructing approach Road Bridge over Prachi Canal for transportation. Permission for construction of V.R Bridge at RD 13.95 Km. of Lingipur Distributary, Mouza – Pandra for access to Plot No. 2807, 2808, 2810, 2798, 2799 over Sabik Khata No. 426, Hal Khata No. 297, Mouza –Pandra, Tahasil – Bhubaneswar. Permission letter no. 6908/we on dated 27/11/2019 is attached as **Annexure-(a)**.	The query raised was to submit detail of land schedule showing ownership of the land along the proposed drain to Gangua nallah and obtain NOC from the landowner for construction of such drain. Here PP has submitted only permission to construct the Road Bridge over Prachi Canal for transportation.
2.	The PP has to submit the layout showing the drainage network starting from building site to natural nallah. The drain design needs to be prepared and approved by appropriate authority considering the data of RLs of bottom of drain at strategic locations and invert level of natural nallah, the runoff calculations during highest rain fall, so that the area is not flooded with rain water during heavy rainfall. The maximum ground water level vs proposed ground level, the parking area, RWH etc. (after construction) needs to be considered taking into account the maximum rainfall of the area for adequate structural stability.	As per the soil testing report, the water level depth is given below in BH NO-01:- 2.30m, BH NO-02:2.40m, BH NO-03:2.40m and BH NO-04:2.35m As per India- WRIS, The water level of the project area during pre-monsoon – 5.14 mbgl, post monsoon:- 3.72 mbgl and during monsoon – 2.2 mbgl Annual average water level is 3.71 mbgl The capacity of the recharge pit is designed to retain runoff at least 15 minutes rainfall of peak intensity. (10 recharge pit will be required having capacity of 6 cum according to CGWB norms) Drawing and design report for excess treated waste water and storm water has been approved by EIDP,	Drawing and design report is submitted in compliance report.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		Bhubaneswar, attached as **Annexure – (h)** We already received of NOC for water Supply & Sewerage Connection to the proposed Block (A) s1+s2+s3+10, Block (B) s1+s2+s3+10, Block (C) s1+s2+s3+18, Block (D) s1+s2+s3+18 Multi storied residential apartment building (MIG Category) over Plot No. 2810/15121, 2808/15127, 2807, 2800, 2798 & 2799/15866 & Khata No. 1330/9654 in Mouza: Pandra, Bhubaneswar from Office of the Superitending Engineer PHD, BBSR vide letter no. 176, Dated 07/01/2023 which is attached as **Annexure (b).**	
3.	The PP has to obtain necessary permission of the CGWA for utilisation of the ground water necessary during operational phase of the project in the absence of supply of PHED water.	The water requirement during the construction phase will be met from private water tankers.	The PP has taken NOC for water Supply & Sewerage Connection from Office of the Superitending Engineer PHD, BBSR vide letter no. 176, Dated 07/01/2023 to have own arrangement. NOC from CGWB vide NOC no. CGWA/NOC/INF/ORIG/2023/18149 with Date of Issuance: 11/04/2023 which is valid up to 10/04/2028 for ---KLD obtained by PP.

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

i) The site is connected with a public road on prachi canal. PP stated that the excess rain water/ treated water from project site will be discharged to Gangua nallah. It is observed that the land between Project site and Gangua nallah is not part of the project site. PP has to submit detail of land schedule showing ownership of the land along the proposed drain to Gangua nallah and obtain NOC from the landowner for construction of such drain.

MEMBER SECRETARY, SEAC

ANNEXURE - A

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

A. Specific conditions

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

B. Standard conditions

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

Nayak
Environmental Scientist, SEAC

carried out regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment, Forest and Climate Change its Regional Office and SEIAA, Odisha.

9. Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM10 and PM2.5 such as haul road, loading and unloading point and transfer points. Fugitive dust emissions from all the sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard. Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board.

10. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations. The monitoring shall be carried out four times in a year pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board.

11. Transportation of the minerals by road passing through the village shall not be allowed. A 'bypass' road should be constructed (say, leaving a gap of at least 200 meters) for the purpose of transportation of the minerals so that the impact of sound, dust and accidents could be mitigated. The project proponent shall bear the cost towards the widening and strengthening of existing public road network in case the same is proposed to be used for the Project. No road movement should be allowed on existing village road network without appropriately increasing the carrying capacity of such roads.

12. The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.

13. Sufficient number of Gullies to be provided for better management of water. Regular Monitoring of pH shall be included in the monitoring plan and report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.

14. There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.

15. The Project Proponent has to take care of gullies formed on slopes. Dump mass should be consolidated with proper filling/leveling with the help of dozer/compactors.

16. The reclamation at waste dump sites shall be ecologically sustainable. Scientific reclamation shall be followed. The local species may be encouraged and species are so chosen that the slope, bottom of the dumps and top of the dumps are able to sustain these species. The aspect of the dump is also a factor which regulates some climatic

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parameters and allows only species adopted to that micro climate.

17. The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. The maximum height of the dumps shall not exceed 8m and width 20 m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.

18. Catch drains and siltation ponds of appropriate size shall be constructed around the mine working,mineral and OB dumps toprevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. The drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dumps to prevent run off of water and flow of sediments directly into the river and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.

19. Plantation shall be raised in a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department and as per CPCB Guidelines. The density of the trees should be around 2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.

20. The Project Proponent shall make necessary alternative arrangements, where required, in consultation with the State Government to provide alternate areas for livestock grazing, if any. In this context, Project Proponent should implement the directions of the Hon'ble Supreme Court with regard to acquiring grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded against felling and plantation of such trees should be promoted.

21. The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.

22. As per the Company Act, the CSR cost should be 2 % of average net profit of last three years. Hence CSR expenses should be as per the Company Act/Rule for the Socio

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

23. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

24. Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.

25. Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.

26. The project authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.

27. The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest and Climate Change, its Regional Office, Central Pollution Control Board and State Pollution Control Board.

28. A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal.

29. State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.

30. The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment, Forest and Climate Change at www.environmentclearance.nic.in and a copy of the same should be forwarded to the Regional Office.

31. The SEIAA, Odisha may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

32. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

33. The above mentioned stipulated conditions shall be complied in a time-bound manner. Failure to comply with any of the conditions mentioned above may result in cancellation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

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ANNEXURE-B

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

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

JNayak
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22. Surface water quality of nearby water bodies.

23. Details of proposed groundwater monitoring wells, locations, frequency of monitoring, parameters, etc.

24. Action plan for the greenbelt development in accordance to CPCB published guidelines.

25. Details of pollution control technologies and online monitoring equipments.

26. Details of monitoring of pollutants at source -performance of the incinerator. including operating hours, fuel consumption, operating parameters (Combustion chamber - temperature, pressure, Stack temperature, total particulate matter, HCl, NOx as per Bio-medical Waste Management Rules, 2016.

27. Stack and fugitive emissions may be monitored for SPM, HCL & NO_2 as per Bio-medical Waste Management Rules, 2016.

28. Specific programme to monitor safety and health protection of workers.

29. Details of Administrative and technical organizational structure.

30. EMP devised to mitigate the adverse impacts of the project should be provided along with item-wise cost of its implementation (Capital and recurring costs).

31. Details of the emergency preparedness plan and on-site & off-site disaster management plan and on-site & off-site disaster management plan.

32. Details of measures to be taken for control of air pollution including measures to control emission of Dioxin and Furan.

33. Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.

34. Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.

35. The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter in the EIA report by the accredited consultants.

36. Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.

37. **The prescribed TOR would be valid for a period of four years for submission of the EIA/EMP report.**

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ANNEXURE- C

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S RAGATRADECON PVT. LTD. FOR PRODUCTION OF 1.0 MTPA IRON ORE WITH 750 TPH CRUSHING UNIT AND 600 TPH SCREENING UNIT IN NETRABANDHA PAHAR (WEST) IRON ORE BLOCK OVER AN AREA OF 74.370 HA. IN VILLAGE - BALADIHI & SANUA, TAHASIL - KOIRA, DIST: SUNDARGARH OF SRI SANGRAM KESHARI RAY- EC

(I) **Statutory compliance**

(i) 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.

(ii) The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.

(iii) The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.

(iv) This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project,

(v) This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the project.

(vi) Project Proponent (PP) shall obtain Consent to Operate after grant of EC 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 concerned State Pollution Control Board.

(vii) The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.

(viii) The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made thereunder in respect of lands which are not owned by it.

(ix) The Project Proponent shall follow the mitigation measures provided in MoEF&CC's Office Memorandum No. Z-l1013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".

JNayak
Environmental Scientist, SEAC

(x) The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.

(xi) A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.

(xii) State Pollution Control Board shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.

(xiii) The Project Authorities should widely advertise about the grant of this EC letter by printing the same m at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board and web site of the Ministry of Environment, Forest and Climate Change (www.environmentclearance. nic.in). A copy of the advertisement may be forwarded to the concerned MoEF&CC Regional Office for compliance and record.

(xiv) The Project Proponent shall inform the MoEF&CC/SEIAA, Odisha for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

(II) <u>Air quality monitoring and preservation</u>

(i) The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM_{10}, $PM_{2.5}$, NO_2; CO and SO_2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.

(ii) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM_{10} and $PM_{2.5}$ are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from ah sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/ Central Pollution Control Board.

JNayak
Environmental Scientist, SEAC

(III) **Water quality monitoring and preservation**

(i) In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF&CC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.

(ii) Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

(iii) Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

(iv) The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-a-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEF&CC / SEIAA, Odisha. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, SEIAA, Odisha, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

JNayak
Environmental Scientist, SEAC

(v) Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J-20012/1 /2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.

(vi) The project proponent shall construct retaining wall and settling pond within the lease area. Further, check dams shall be constructed at strategic locations in which rain water passes in rainy season. Finally, the excess supernanted after sedimentation shall be allowed to spill away through stone pitch structure to the nearby valley.

(vii) De-silting of agricultural lands in buffer zone and beyond including nearby Nalas/rivers perennially periodically and perpetually caused due to wash up of minerals/OB/dumps shall be done as per SOP submitted. A legal affidavit shall be submitted within 6 months from the date of issue of Environmental Clearance to this effect with periodicity of de-silting.

(viii) Detail design of the existing retaining wall and the proposed for the expansion from a chartered Civil Engineer shall be submitted within 6 months from the date of issue of Environmental Clearance to ensure that no silt after wash up is escaped from the core / buffer zone of the mines.

(ix) An area of 3.40Ha shall be kept for public use as pond and road. Hence, remaining 52.956Ha shall be planted during life of the mine in a phased manner i.e. within a period of 20 years.

(x) Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office, MoEF&CC annually.

(xi) Industrial waste water (workshop and waste water from the mine) should be properly collected and treated in an ETP as proposed so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.

(xii) The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board.

(IV) <u>Noise and vibration monitoring and prevention</u>

(i) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS

guidelines.

(ii) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.

(iii) The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The worker engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

(V) <u>Mining Plan</u>

(i) The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.

(ii) The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.

(iii) The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-a-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office / SEIAA, Odisha.

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(VI) Land reclamation

(i) The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.

(ii) The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.

(iii) The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.

(iv) The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.

(v) The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha.

(vi) Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and topsoil / OB / waste dumps to prevent runoff of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.

(vii) Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the comers of the garland drains.

(viii) The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical

parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.

(ix) The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

(VII) Transportation

(i) No Transportation of the minerals shall be allowed in case of roads passing through transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.

(ii) The Main haulage road within the mine lease should be provided with a permanent water arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

(iii) Traffic management shall be done as per recommendation of Traffic Management Study Report.

(iv) The Project Proponent shall provide parking plaza for the heavy vehicles within the lease area as recommendation of NEERI.

(VIII) Green Belt

(i) The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in

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approved mine plan.

(ii) The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.

(iii) The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.

(iv) The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.

(v) And implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.

(IX) <u>Public hearing and human health issues</u>

(i) The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEF&CC Regional Office and DGMS on half-yearly basis.

(ii) A commitment in form of an undertaking for periodical occupational health checkup of the employee and the local people shall be done through an occupational health expert as per the detailed action plan submitted with the proposal within 6 months from the date of issue of Environmental Clearance.

(iii) The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment

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(HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.

(iv) The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x I4 inches and of good quality).

(v) The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities, (c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1),Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.

(vi) The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided

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with adequate training and information on safety and health aspects.

(vii) Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.

(viii) The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.

(ix) Issues raised and recorded in proceedings of public hearing w.r.t. environment / pollution / CER shall be complied by the Mining Authority as per OM F. No. 22-65/2017-IA.III, dated 30.09.2020 of MoEF&CC, Govt. of India.

(X) Corporate Environment Responsibility (CER)

(i) The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by SEAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.

(ii) Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEF&CC and its concerned Regional Office / SEIAA, Odisha.

(XI) Miscellaneous

(i) The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.

(ii) The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.

(iii) The project proponent shall establish a solar power plant with 30KVA capacity within the lease area as proposed.

(iv) The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the

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MoEF&CC & its concerned Regional Office, SEIAA, Odisha, Central Pollution Control Board and State Pollution Control Board.

(v) A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.

(vi) The proponent shall comply all the specific conditions as recommended by CSIR-NEERI on carrying capacity study (as applicable) in time bound manner as proposed.

(vii) The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

(viii) The project proponent shall augment infrastructure on drinking water, health care and education in nearby villages as per time bound action plan submitted.

(ix) The project proponent shall obtain permission from DGMS under 106(2b) to carry out blasting operation within the lease area.

(x) Fe grade -55 and +45 to be attempted to use by blending with higher grade.

(xi) The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.

(xii) 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.

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ANNEXURE- D

STANDARD ENVIRONMENTGAL 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

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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.

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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.

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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.

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Annexure - E

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": 1/4the part of the river width (excluding 3/4the central part of the river width) on both sides of the river towards the river bank	4.1.1 (Para - e) Page - 16
2.	a) Distance between two clusters : ≥2.5 km b) Area of mining lease area is a cluster: ≤10 ha.	4.1.1 (Para - k) Page - 19
3.	Concave River Bank : No extraction of sand	
4.	No mining if a) Upstream: Lease is 1 km from major Bridge and high ways or 5(x) of the Bridge / public civil structure / water intakes point subject to lease is located at a minimum 250 meter distance. Where x = Span of the bridge. b) Downstream side: Lease is 1 km from the major bridge and Highways Or 10x of the bridge / public civil structure /water intake point Subject to lease is located at a minimum distance of 500 meter where x = span of the bridge	4.3 (Para - h) Page - 23
5.	Mining depth : ≤ 3 meter (maximum 3 meter)	4.3 (Para - m) Page - 24
6.	Mining distance from river bank: 1/4th 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 : ≤60% of mine lease area	4.3 (Para - s) Page - 25
8.	Minable sand per ha. Available for actual mining : ≤60,000 MT/Annum	
9.	Regular replenishment study and replenishment rate	

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