

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE, ODISHA HELD ON 25TH AUGUST 2025**

The SEAC met on 25th August, 2025 at 03:30 PM in the Conference Hall of Odisha State Pollution Control Board, Bhubaneswar under the Chairmanship of Sri Sashi Paul. The following members were present in the meeting.

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

Draft proceedings of the meeting was finalized by the members through e-mail and final proceedings of the meeting was confirmed by the members through e-mail. The agenda-wise proceedings and recommendations of the committee are detailed below.

ITEM NO. 01

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S RENEWABLE ENVIROGIC PRIVATE LIMITED FOR PROPOSED COMMON BIOMEDICAL WASTE TREATMENT FACILITY (CBWTF) AT: KHATA NO.18, PLOT NO. 134, MAUZA- PADMAPUR, TEHSIL- KORAPUT, DISTRICT –KORAPUT OF SRI DEBASIS TRIPATHY - EC

1. This proposal is for obtaining Environmental Clearance of M/s Renewable Envirogic Private Limited for Proposed Common Biomedical Waste Treatment Facility (CBWTF) At: Khata No.18, Plot No. 134, Mauza- Padmapur, Tehsil- Koraput, District –Koraput of Sri Debasis Tripathy.
2. **Category:** This project falls under Category “B” or - 7(da- Bio-medical waste treatment, storage and disposal facilities.as per EIA Notification dated 14th Sept, 2006 and its amendments.
3. **Location and Connectivity:** The proposed site is located at Khata No.14, Plot No. 134 bearing Topo-sheet No E44K13. This project is not located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC. This area also does not form part of any National Park, Wildlife Sanctuary and Biosphere reserve. The land for the proposed project is non forest land of Kismat dangar-2 which will be converted for industrial use before operation. Connectivity of the project is as follows:

Nearest State/ National Highway	<ul style="list-style-type: none">• NH-26, Distance from Project site-1.50KM (S)• NH 43, Distance from Project site IS 1.4 KM S• NH-326, Distance from Project site-4.77KM (N)
Nearest Railway Station	<ul style="list-style-type: none">• Dumuriput Railway Station-1.25 Km -SE

	<ul style="list-style-type: none">• Damanjodi Railway Station – 7.24 Km – ESE• Koraput Railway Station – 8.3Km - SW		
Nearest Commercial Airport	<ul style="list-style-type: none">• Biju Patnaik International Airport, Bhubaneswar – 355.13 km (NE)• Jeypore Airport -27.63 KM (WNW)		
RF / PF In Study Area	<ul style="list-style-type: none">• Janiguda R.F.- 4.70KM – N• Manohara R.F.- 9.87KM – WNW• Machara R.F.- 8.13KM – NW• Naranga P.F.- 7.61KM – NNE		
Nearest River / Dam & Distance of nearest Highest Flood Level (HFL) from the Project Boundary	Chindri Waterfall	5.83km	NW
	Chandan Pokhari Koraput	9.29km	W
	Red Mud Pond Nalco	9.09km	E
	Ash Pond, Nalco	8.70km	E
	Kollab Reservoir	4.25KM	S
	Sunabeda Reservoir Lake	9.85km	SSE
	Naranga Nokati Nala	7.11km	NE
	Chhabili Nadi	9.38km	N
	Mukhnajorhi nalla	4.7km	NE
Nearest Densely populated or built-up area/ Village Panchayat/Municipal Corporation	<ul style="list-style-type: none">• Sunabeda – 7.06 km – SE• Koraput Town – 9.39 km - WNW• Padmapur – 0.5km- SSE		

4. **Terms of Reference (TOR) details:** Terms of Reference (TOR) was granted by SEIAA, Odisha on dated 05.11.2024 vide file no SIA/OR/INFRA2/452677/2023.
5. **Public hearing details:** Public hearing was conducted on dated 14.02.2025 at 11:00 am at the Gram Panchayat Office at Padampur, Tehsil Koraput in Koraput district. Issues raised during the public hearing are employment of local youths/villagers on priority, air and water pollution control measures, ash management, protection of land from waste water generated from common biomedical treatment facility, dead body cremation and postmortem performance, biomedical waste containing vehicles through the village roads, types of waste to be disposed/treated in the CBWTF and skill development for women.
6. **Summary of products generated by the project:**

S. No.	Equipment	Installed Capacity	Number
CBMWTF:		5 TPD	1 setup (for 10,000 beds) over 1.44 acres of land
i.	Incinerator with APCD	250 Kg/ hr	1 +1 (for future)
li	Autoclave	300 kg/ batch	1

iii	Shredder	300 Kg/hr	1
iv	Effluent Treatment Plant (ETP)	10 KLD	1
V	Vehicles for transportation with GPS.	Model: TATA Ace Gold	3
Operating hours 8-10 hrs./day			

7. **Waste generation details:** Following are the waste that will be generated from the proposed project.

- Ash -100-150 kg/day
- ETP sludge-1.2 TPA
- Municipal Solid waste-2.64 TPA
- Hazardous waste (Used Oil and Waste Oil as per Sl.No. 5.1,5.2 of schedule I of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016)-3 TPA
- E- waste (Discarded Bulb, Printer cartridge, mouse, wire, switch panel)-27 Kg/ Year
- Disinfected plastics-165 TPA
- Disinfected sharp items-33 TPA

8. **Waste management:**

Sl.no	Source	Solid waste	Quantity generation	Management
1	Incinerator	Ash	100-150 kg/day	It shall be collected into Containers / Bags and shall be stored at temporary ash storage shed and shall be disposed to outside TSDF. Agreement made with M/s Re Sustainability Limited for disposal of Ash.
2	ETP	ETP sludge	1.2 TPA	It will be sent to outside TSDF
3	Canteen	Municipal Solid waste	2.64 TPA	Biodegradable wastes will be composted and used as manure for plantation. Plastic, metal and other wastes will be supplied to the authorized agency.
4	Plant Operation	Hazardous waste(Used Oil and Waste Oil as per Sl.No. 5.1,5.2 of schedule I of Hazardous And Other Wastes (Management and Transboundary Movement) Rules, 2016)	3 TPA	It will be sent to authorized recyclers
5	Office	E- waste (Discarded	27 Kg/ Year	It will be disposed through SPCB authorized recyclers and processor parties.

		Bulb, Printer cartridge, mouse, wire, switch panel)		
6	Process	Disinfected plastics	165 TPA	Plastic waste will be sent for recycling to the registered recyclers.
7		Disinfected sharp items	33 TPA	These sharp items will be disinfected in autoclave and stored in the sharp pit placing in the metal / concrete containers which shall be gradually disposed to outside TSDF.

9. **Baseline study details:** Baseline study was conducted during October- December 2024.

AAQ Parameters at 9 Locations	<ul style="list-style-type: none"> PM₁₀ –37.3 µg/m³ to 65.8 µg/m³ PM_{2.5} –20.8 µg/m³ to 36.8µg/m³ SO₂ – 4.2 µg/m³ to 10.3 µg/m³ NO_x – 7.2 µg/m³ to 24.6 µg/m³ CO – 0.21 mg/m³ to 0.54 mg/m³ <p>Other parameters like NH₃, Benzene & BaP values are found below the limit of quantification (BLQ)</p>
Ground water Quality at 6 Locations	<ul style="list-style-type: none"> pH Levels- 7.20 to 7.44 Total Dissolved Solids (TDS): 113 mg/l to 128 mg/l Total Hardness:78 mg/l to 108 mg/l Turbidity:1 NTU to 1.60 NTU Heavy Metals: Arsenic, lead and mercury levels remain below the limit of quantification Fluoride: below 0.1 mg/l Total Coliform: less than 1.1 MPN/100 ml.
Surface water Quality at 6 Locations	<ul style="list-style-type: none"> pH Levels- 6.71 to 8.31 Total Dissolved Solids (TDS)-108 mg/l to 215 mg/l Total Hardness-59 mg/l and 78 mg/l BOD-1 mg/l to 2.2 mg/l COD-5.6 mg/l to 9.6 mg/l Dissolved Oxygen (DO)-4.5 mg/l to 6.4 mg/l Turbidity-5.1 NTU and 7.1 NTU Heavy Metals -Arsenic levels remain below 0.004 mg/l, lead below 0.02 mg/l, Mercury concentrations remain below 0.004 mg/l. Total coliform -17 mg/l to 47 mg/l.
Soil Quality at 6 locations	<ul style="list-style-type: none"> pH Levels-6.89 to 7.20 Electrical conductivity -50 µs/cm to 84 µs/cm Moisture Content-5.20% to 12.20% Nitrogen-27.5 Kg/ha to 33.5 Kg/ha Phosphorus-98.3 mg/kg to 150.2 mg/kg Organic carbon -1.18 % and 1.59%

Noise levels at 8 locations	<ul style="list-style-type: none"> Ambient noise reaches 38.6 dB to 69.4 dB(A) during day time and 27.9 dB to 63.7 dB(A) during night time.
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10. **Total water requirement and waste water management:** Total water requirement of the proposed project is 18.5 KLD which is sourced from bore well /tankers. Total fresh water requirement 12.5 KLD {(For Domestic Uses - Drinking & sanitation-1.5 KLD) and for process (cooling & scrubbing) (7.5) KLD+ Vehicle Wash (2 KLD) + Greenbelt Uses (1.5 KLD)}. Waste water will be treated in 10 KLD ETP and treated waste water will be reused in Venturi Scrubber, Quencher and washing of waste collection vehicles. Domestic waste water will be treated in 2 KLD STP and reused for plantation.

Utilities	Quantity (in KLD)
Domestic Requirement	1.5 KLD
Process Requirement (Incineration, Cleaning of Storage Area, Autoclave Shredder including cooling & scrubbing)	7.5 KLD
Vehicle Wash	2.0 KLD
Greenbelt	1.5 KLD
Total Fresh Make up Water Requirement	12.5 KLD
Reuse (in Venturi Scrubber, Quencher and washing of waste collection vehicles)	6.0 KLD

11. **Power Requirement and solar power details:** DG set of 125 KVA is proposed for the project and 100 KW power from 11KV lines will be taken with due permission from TPSODL. It has been proposed to install solar street lights and solar panels on the roof top of administrative building inside the project area with the view of green energy production and reduce power load from grid. Total Solar power generation is 3.22 KW (i.e. 3.22 % of total power requirement 100 KW).
12. **Fuel Requirement:** Proposed fuel requirement is 500 litres/day. Incinerator – LDO/HSD @ 35 litres/hr for 10 hrs which is 350 litres/day. Autoclave Boiler-LDO/HSD @ 15 litres/hr is 150 litres/day
13. **Rain Water Harvesting Details:** Following is the rainwater harvesting details for both the seasons
- Monsoon season** - About 26.8 KLD rain water will be harvested in monsoon season. Out of which 14.3 KLD will be recharged to underground through recharge pits and balance 12.5 KLD can be reused for plant process and other use. Hence drawl of fresh water can be saved towards water conservation.
 - Non-monsoon season**-Total harvested water (2.7 KLD) will be used for recharging of ground water level.
14. **Green Belt Development:** Total area of the plant is 1.44 Acre. Total Green belt is 0.477 Acre. i.e. 33%. Total 630 sapling will be planted with a survival rate of 90% i.e. 567 saplings .

Sl. No.	Year wise plantation program	Area covered (Ha.)	No. of sapling planted	Expected survival rate	Plants survival	Budget proposed for plantation/greenbelt	Type of Pollution Tolerant tree species
1.	1 st year	0.204	210	90%	189	94500	Aam, Bahera, Arjun, Harida, Jamu, Kendu, Neem, Bela, Chandan, Haldi (Ban)
2.	2 nd Year	0.114	210	90%	189	52,500	
3.	3 rd Year	0.159	210	90%	189	73,500	
	TOTAL	0.477	630	–	567	1,57,500	–

15. **Total Employment:** Total about 50(direct-30 and Indirect-20) persons are proposed to be hired for plant operations including officers, skilled and unskilled workers.

16. **Project cost and EMP, CSR Cost:** Estimated Project Cost of the proposed project is Rs 178.2 Lakhs. EMP Cost includes Capital Cost of Rs.37.40 lakhs and Recurring Cost of Rs. 12.0 lakhs. PH Compliance and CER cost includes an amount of Rs. 5.10 lakhs. Total Capital Cost for EMP including PH compliance & CER Cost is Rs.42.5 lakhs.

ENVIRONMENT MANAGEMENT COST

Sl.	Particulars	Capital Cost (Rs. in Lakhs)	Recurring Cost per Annum (Rs. In Lakhs)
1.0	Pollution Control		
i	Air Pollution(Dust suppression through water tanker, fixed water sprinklers, wheel wash system, development of concrete roads, Venturi scrubber attached to incinerator)	20.0	2.0
ii	Noise Pollution (maintenance of vehicles and equipments, isolation of instruments, acoustic enclosures for DG sets)	2.0	0.2
iii	Water Pollution (Rain water harvesting, Settling tank, garland drain, check dam, ETP, Vehicle washing)	12.0	2.0
iv	Solid and Hazardous waste Management (storage & handling of hazardous waste), supply of ash to outside TSDF.	0.8	0.2
2.0	Environment Monitoring		
i	Air monitoring & analysis cost	0	4.0
ii	Noise & Soil	0	1.0
iii	Water monitoring & analysis cost	0	2.0
3.0	Occupational Health (first aid, health checkup)	1.03	0.3
4.0	Green Belt	1.57	0.3
Total		37.40	12.0
PH compliance & CER cost		5.10	--
Total		42.5	12.0

Table: Post Project Monitoring Cost

Sl. No.	Particulars	Capital Cost (in Lakhs)	Recurring Cost (in Lakhs)
1.	Air monitoring & analysis cost	--	4.0
2.	Water monitoring & analysis cost	--	2.0

3.	Noise and Soil monitoring & analysis cost	--	1.0
	Total	0	7.0

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

Considering the information furnished and the presentation made by the consultant, **M/s Visiontek Consultancy Services Private Limited, Bhubaneswar** along with the project proponent, the SEAC recommended the following:

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

- The project proponent mentioned during presentation that , the previous uploaded KML file, during Terms of Reference (ToR) shows different location whereas, in EC proposal KML file has been revised as per the land schedule. Clarify, as to why the earlier submitted KML file was not proper and how the presently submitted KML is correct.
- Supporting documents regarding NOC/Permission from the concerned authority to usage of panchayat road for transportation of materials.
- A note on LDO and HSG content.
- Project proponent shall increase the solar percentage upto 5 %.
- Map showing the distance from the existing nearest CBWTF facilities.
- Maintain greenbelt and attain zero water discharge as per the guidelines for the project.
- Supporting documents for conversion of land kissam from Dangar 2 to Industrial use to be submitted.

18. **The SEAC in its meeting held on dated 01.07.2025 decided to take decision after receipt of the following information and documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:**

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC										
i)	The project proponent mentioned during presentation that, the previous uploaded KML file, during Terms of Reference (ToR) shows different location whereas, in EC proposal KML file has been revised as per the land	<p>Present KML file shows the location of the proposed project as per the land schedule of the site given as below:</p> <table><tr><th>Plot No</th><th>Khata no</th><th>Mouza</th><th>Area in Acre</th><th>Kissam</th></tr><tr><td>134</td><td>14</td><td>Padmapur</td><td>1.44</td><td>Dangar-2</td></tr></table> <p>The same plot has been mentioned in the Certified Copy of RoR which is enclosed as Annexure-1.</p>	Plot No	Khata no	Mouza	Area in Acre	Kissam	134	14	Padmapur	1.44	Dangar-2	<p>Previous KML file had a computerized error/ glitch and now, new KML file has been uploaded.</p> <p>Copy of RoR is also attached as Annexure-1 has been uploaded</p>
Plot No	Khata no	Mouza	Area in Acre	Kissam									
134	14	Padmapur	1.44	Dangar-2									

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	schedule. Clarify, as to why the earlier submitted KML file was not proper and how the presently submitted KML is correct.	Previous KML showed the location slight left of the actual project site which was a computerized error/ glitch. Actual project site with its coordinates, location Map, KML, etc were uploaded in the portal and presented before the SEAC.	
ii)	Supporting documents regarding NOC/Permission from the concerned authority to usage of panchayat road for transportation of materials.	The documents regarding NOC/Permission from the concerned authority for usage of panchayat road for transportation of materials is attached as Annexure-2 . An agreement was executed for usage of road for the proposed project between Padmapur Gram panchayat and land owners on dated 08.11.2024 and is attached as Annexure-2.1 .	NOC/Permission from the Sarpanch of Padmapur GP is attached as Annexure-2 for usage of panchayat road for transportation of materials.
iii)	A note on LDO and HSD content.	LDO and HSD will be used as fuel in the incinerator. Sulphur content in HSD is 1% where as in LDO it is 1.8%. As sulphur content in HSD is less as compared to LDO, HSD is preferred to be used in the Incinerator. Accordingly, stack height is calculated and given in EIA and presented to SEAC also. Detailed stack calculation is attached as Annexure-3 .	Complied
iv)	Project proponent shall increase the solar percentage upto 5 %.	Proposal for Solar power Use has been revised from 3.22 % to 5.26 % of total power requirement of 100 KW. Calculation for solar power for 5.26 KW is attached as Annexure-4 .	Complied
v)	Map showing the distance from the existing nearest CBWTF facilities.	<ul style="list-style-type: none"> Regarding distance authentication, approval has been obtained from SPCB vide letter no. 14448/IND-II-CTE-Misc-374/2024-25, dated 30.07.2025. Enclosed as Annexure-5. Map showing the distance from the proposed CBWTF of Renewable Envirogic Pvt. Ltd. and other existing CBWTF facilities has been prepared and enclosed as Annexure-5.1. 	Distance authentication letter from SPCB is attached as Annexure-5 . Image from Google Map showing the distance from other existing CBWTF facilities is attached as Annexure-5.1

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
vi)	Maintain greenbelt and attain zero water discharge as per the guidelines for the project.	The total proposed area of the plant is 1.44 Acres and the green belt is proposed over an area of 0.477 acres i.e. 33.1 % of the total plant area. The detailed Green Belt Management and is attached as Annexure-6 .	Green Belt Management & Zero Liquid Discharge Plan is attached as Annexure-6
vii)	Supporting documents for conversion of land kissam from Dangar 2 to Industrial use to be submitted.	Application for Conversion of land Kissam from Dangar 2 to Industrial is in process of approval and is attached as Annexure-7 .	Complied
viii)	The project proponent mentioned during presentation that, the previous uploaded KML file, during Terms of Reference (ToR) shows different location whereas, in EC proposal KML file has been revised as per the land schedule. Clarify, as to why the earlier submitted KML file was not proper and how the presently submitted KML is correct.		Same as Sl. No. (i)

19. The Committee observed the following:

- i) Guideline of CPCB, Delhi stipulates that another Common Bio-medical Treatment Facility should not be allowed within 75 kms from the existing Common Bio-medical Treatment Facility.
- ii) "Criteria for development of a new Common Bio-medical Waste Treatment and Disposal Facility for a locality or region." of "Guidelines for Common Bio- medical Waste Treatment and Disposal Facilities", April 12, 2025, Central Pollution Control Board, Delhi has no mention of any restriction prohibiting establishment of common Bio - medical treatment facility. SPCB/PCC are required to conduct gap analysis with respect to coverage area of the bio-medical waste generation, its projection over a period of next ten years, adequacy of existing treatment

capacity of the CBWTF in each coverage area of radius 75 KM, as given in Annexure-I and as per methodology for conduct of gap analysis given at Appendix-I.

- iii) The proponent of proposed Common Bio-medical Treatment Facility while applying for EC submits a distance certificate from concerned authority about the distance of the proposed facility from the existing Common Bio-medical Treatment Facility.
- iv) In the recent past, numbers of proposals have been received for grant of EC from a particular location within 75 kms and CPCB, Delhi guidelines silent about the distance between the two proposed Common Bio-medical Treatment Facility. In some cases, ToRs have been issued to some Common Bio-medical Treatment Facility even within a distance of 2 to 3 kms and lot of complains have been received from some of the existing facilities and also from the proposed facility in this regard.
- v) In the CPCB guidelines, responsibility has been given to the State Pollution Control Board to study the gap analysis to allow Common Bio-medical Treatment Facility. But no such study has been carried out.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s. Visiontek Consultancy Services Private Limited, Bhubaneswar** the SEAC recommended the following:

- A.** In case the proposal is considered for grant of Environmental Clearance, the Environmental Clearance may be granted for the project valid for a period of 10 years with stipulated conditions as per **Annexure – A**.
- B.** During post-operative management, detailed analysis should be carried out for various parameters, heavy metals particularly Mercury (Hg) for Incinerator Ash, sludge and liquid effluent before disposal to outside vendors.
- C. Policy decision may be taken by SEIAA, Odisha for considering EC applications for Common Bio-medical Waste Treatment Facility (CBWTF), where there are number of proposed facilities applied for EC within 75 Km as pointed out at Para 19 above.**

ITEM NO. 02

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF OFFICE BUILDING (B+S+20) I.T INCUBATION CENTRE (RESEARCH, LABORATORY & DATA PROCESSING CENTRE) FOR KIIT UNIVERSITY OVER IDCO PLOT NO. – 17/A/REVENUE PLOT NO.-3340/3370. THE TOTAL SITE AREA IS APPROXIMATELY 2.20 ACRES. / 0.8903084 HA. / 8903.0841 SQM. TOTAL BUILT-UP AREA - 36450 SQM. TOTAL FAR AREA - 26341SQM. LOCATED AT PATIA, BHUBANESWAR, DIST - KHORDHA OF SRI RABINDRA NATH DASH - EC

- 1. This proposal is for Environmental Clearance of Office building (B+S+20) I.T Incubation centre (research, laboratory & data processing centre) for KIIT university over IDCO Plot No. - 17/A/Revenue Plot no.-3340/3370. The total site area is approximately 2.20 Acres. / 0.8903084 Ha. / 8903.0841 sqm. Total Built-up area - 36450 sqm. Total FAR area - 26341sqm. at Patia, Bhubaneswar, Dist - Khordha of Sri Rabindra Nath Dash.
- 2. **Category:** As per the EIA notification 2006, and its subsequent amendments, proposed project falls in category B under schedule of Item 8(a): Building & Construction Projects.

3. **Location and Connectivity** – The proposed project is located at Khata No. - 474/1607, Plot No. - 17/A, Revenue Plot no.-3340/3370, Mouza - Patia, Bhubaneswar, Khordha, Odisha bearing Topo sheet No. F45T15. The site is located in the middle of Bhubaneswar city. The KIMS Hospital Road surrounds the site from the north direction. The Sikharchandi - INFOSYS Road serves the prime purpose of linking the site with the Nandankanan Road, AH-45/NH-5. Ghatikia Main Road, in the north serves as an alternate way of access to the project site. The total site area is approximately 2.20 Acres. / 0.8903084 Ha. / 8903.0841 sqm. Nearest river is Kuakhai river - 6.45 km, nearest railway station is Patia Railway Station at 2.94 km and nearest airport is Biju Pattnaik International Airport is at 11.30 km respectively.

4. **Geo-coordinates of project site are:**

Latitude	Longitude
20°21'17.43"N	85°48'54.32"E
20°21'17.71"N	85°48'50.28"E
20°21'15.14"N	85°48'50.18"E
20°21'14.88"N	85°48'54.16"E

5. **Project details:** The proposed is a development of (B+S+20) multi storied I.T Incubation centre comprises of research, laboratory & data processing centre for KIIT university over IDCO plot number - 17/A, revenue plot no. - 3340/3370 (p) and 20(p), khata no.– 474/1607, located in Mouza - Patia, Tahasil - Bhubaneswar, Dist.-Khordha, Odisha. The site is located in front of KIIMS hospital. Total land required for this proposed project is 8903.08 sqm. (2.20 Acres). Existing road & railway facility shall be utilized. Only internal roads, paths will be developed for vehicular movements for transportation of construction materials during construction phase. So, no new road or rail traffic required during construction or operation.
6. The site is coming under Bhubaneswar Development Authority.
7. The Building Area Details of the Project in tabulated form:

Particular	Proposed
Project name	Proposed B+S+20 multi storied I.T Incubation center (research, laboratory & data processing center) for KIIT university at Patia, Bhubaneswar, Odisha.
Plot area	8908.08 sqm. (2.20 Acres)
Total built up area	36450 sqm.
Built up area (main building)	26341sqm.
Built up area (service building)	210 sqm.
Built up area for FAR	26536.44 Sqm.

FAR	2.98
Maximum height	81.00 m
Parking area	10877.00 sqm. (41% FAR area)
Parking Area:	
Basement parking	(6168 sqm.);
stilt parking	(3695 sqm.);
surface parking	(1014 sqm.)
Greenbelt area	119 no. of trees as per rule no. 30 of ODA
Power/electricity requirement	4000 KW
No. of DG sets	3X1000 KVA
Fresh water requirement & sources	58 KLD
Sewage treatment & disposal	STP capacity – 150 KLD
Estimated population- including floating/visitors	3056 nos.
setback permissible	- 12.0mt from all side
Setback provided on Front	- 19.13m
Setback provided on right	-12.01m
Setback provided on left	-12.51m
Setback provided on rear	- 12.01m
Plot Bounded by	- Front road
Left side	Private Plot
Right side	- Road
Rear side	- Private Plot
Project cost	91.12 Crores
EMP Cost	94 Lakhs

8. **Water Requirement:** Total Water requirement is 126 KLD (Fresh water + Flushing water). Total domestic water requirement is 58 KLD. Total flushing water requirement is 68 KLD. Waste water generated from entire official building is 113 KLD which will be treated in STP of Capacity 150 KLD having MBBR Technology. Water source - Provision by IDCO for Supply Water or Ground water (stand by) is there.
9. **Power Requirement:** Total Power requirement of the proposed project is 4000 KW. Source of Power is TPCODL, Bhubaneswar. Proposed Power Backup is 3X1000 KVA (Certified for Retrofit Emission Control Devices (RECDs) applicable to Diesel Genset Engines (Up to 800 kW). Consumption of diesel is 0.9liters/KVA /hr on full load basis. Provision for installation of battery-operated light system in stair cases to be utilized during fire hazards.
10. **Solar energy details:** The Solar Power Demand for the proposed unit will be 5% of total demand. Solar power calculated is 200 KW. The area requirement on roof top has been calculated @12 Sq.m per 1KwP as suggested by Ministry of New and Renewable energy. Hence, an area of 200 KwP x 12sq.m = 2400 Sq.m is required for roof top area for installation of Solar Photo voltaic power plant. 20 % of total hot water requirement must be catered through Solar Thermal system. Total Water Requirement is 126 KLD. Solar Hot water system for 20 % capacity which is 25 KLD and Solar Panel Nos.@ 300 Liter/Panel which is 83 Nos. SPV Modules of 170 Wp or above for a total capacity 200 KW or 200 000 WATT and SPV Panel Nos.@170 Wp/Panel is 1176 Nos.
11. **Rainwater Harvesting:** Runoff from roof top area will be collected in a rain water collection tank having capacity is 200 KLD. Surface runoff from road, paved area and green belt area has collected by 31 nos. of recharge pits having capacity of 6 cum. And excess water will be discharge to nearest municipal drain. The rain water overflow from all Rain water Harvesting pits shall be channelized into a central sump. Storm water from this sump can be pumped or connected to City Storm Water drain line near to the project site.
12. **Parking Requirement:** Parking area proposed is 10877.00 sqm. (41% FAR area). Basement parking is 6168 sqm., Stilt parking is 3695 sqm.; Surface parking is 1014 sqm. Total no. of ECS (for 4 and 2 Wheelers) is 592.

Particulars	Parking Area	Total no of ECS for 4 & 2 wheelers	Total no of ECS for (4 Wheelers)	Area provided for ECS	Area provided for ECS	Total No. of Parking
				(4wheelers)	(2 wheelers)	(2 Wheelers)
Basement parking area	6168	308.4	247	4934.4	1233.6	352
Stilt parking area	3695	274	219	2959.2	735.8	210

Surface parking	1014	75	60	810	204	58
TOTAL	10877	657.4	526	8703.6	2173.4	621
For Staff and Employee	9789.3	592	473	7833	1956	559
Visitors Parking (10% OF Total Parking Area)	1087.7	65.74	53	870	217	62

13. **Firefighting Installations:** Fire Fighting will be provided as per Fire recommendations.

14. **Green Belt Development:** Total green area measures 2048 m² (approx. 23 % of the total plot area). No. of trees required: 120 nos. (One tree every 80 sqm. of plot area as per regulation - 30 of ODA (P& BS) Regulation, 2020).

15. **Solid Waste Management:** During the operation phase, the solid waste (Municipal Solid Waste) generated from the project will be around 0.782 T/day. The total biodegradable solid waste will be 0.340 T/day and non-biodegradable solid waste will be 0.442 T/day. It will be collected in different colored bins. Proper waste management practices shall be adopted during collection, storage and disposal of solid waste and construction and demolition waste generated. Components are being collected in separate bins. The disposal of recyclable and non-recyclable waste and other waste is being done through the Government approved agency. The following arrangements will be made at the site as per the Municipal Solid Waste (Management and Handling) Rules, 2000 and amended Rules, 2016.

Description	Weight	Disposal
Organic Solid Waste	340 kg/day	Converted to compost
Inorganic Waste	442 kg/day	Authorized Recyclers
E-waste	500 kg/year	Authorized Recyclers
STP Sludge	2 kg/day	Manure for landscaping area
Hazardous Waste	1000 Litres/Year	Authorized Disposal Agency

16. **Project cost:** The estimated project cost is 91 Cr and cost for EMP is 94 Lakhs (as Capital cost) & 5.05 lakhs (as Recurring cost).

EMP COST

Source	Capital Cost (In Lacs)	Recurring Cost (In lacs)
Landscaping	12	1
Rain Water Harvesting	10	0.3
Solid Waste Management	5	0.5
STP	65	2.5
Environmental Monitoring	2	0.75
Total	94 lacs	5.05 lacs

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

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

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

- i) Project Proponent shall justify, why the project will not be considered as a case of violation, since institutional building has been constructed and EC has been exempted for Educational Institution and now Project Proponent wants to convert the building into commercial unit.
- ii) Supporting documents of Bhubaneswar Development Authority, where it mentions helipad is required for such height of constructed building.
- iii) The Project proponent shall submit an undertaking if they don't want to use Helipad in future proposed project. And if they want to keep then the PP shall follow rules for Helipad facility as per norms.
- iv) DLC Certificate from the concerned DFO to be submitted.
- v) Traffic Study Report shall be vetted by Institute of Repute.
- vi) A comparative table showing the earlier approved built-up area and the proposed construction.
- vii) Copy showing that the proposed building was earlier built up for purpose of educational institute.
- viii) Earlier approved BDA building plan mentioning the built-up area.
- ix) Certificate by BDA approved Architect showing how much construction has been completed till now.

B. The proposed site shall be visited by Sub-Committee of SEAC to take a view on the extent of construction and the circumstances under which the activities were initiated etc.

19. The proposed site was visited by the sub-committee of SEAC on **13.11.2024**. Following are the observations of the sub-committee:

- a) The site is located at the main road opposite KIMS and the land has roads both sides. One side of road has a drain as explained by PP to which the storm water will be drained. It was informed that the plot was allotted by IDCO.
- b) The layout plan was explained. It was observed that **the structural work of buildings is almost completed**. There are trees surrounding the boundary as green belt, needs to plant more trees.
- c) PP explained that: - They had initially taken approval for institutional activities which was under 1,50,000 sq mt, hence commenced construction work and almost completed the structural work as per approved plan. Due to certain internal decision, they now want to convert it to a commercial unit, for which they are seeking the EC recommendation from SEAC. As the construction carried out are as per approved plan and they are not deviating from it, there is no violation rather it is a change of use. PP agreed to examine the proposal as a commercial unit and the requirements thereof for EC recommendation.
- d) They also informed that there will be no helipad rather roof top solar PV cells and they have all environment protocols envisaged for commercial use.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Project Proponent shall justify, why the project will not be considered as a case of violation, since institutional building has been constructed and EC has been exempted for Educational Institution and now Project Proponent wants to convert the building into commercial unit.	<p>1. Ministry of Environment, Forest and Climate Change vide Notification S.O. 3252 (E) dated 22/12/2014, amended the item 8 (a) of schedule to the EIA Notification 2006 to state that industrial shed, school, college, hostel for educational institution shall be exempted from requirement of Environmental Clearance (EC) but shall ensure sustainable environmental management, solid and liquid waste management, rainwater harvesting and may use recycled materials such as fly ash bricks.</p> <p>2. OM dated 9/06/2015 clarifying that Notification dated 22/12/2014 provides exemption to buildings of educational institution including universities from obtaining prior EC under the provisions of EIA Notification 2006 subject to sustainable environmental management and provided a set of guidelines to be followed for building projects to ensure sustainable environmental management.</p> <p>3. Thereafter, the Ministry issued an OM on 19/05/2022 stating that exemption provided for educational institutions vide Ministry's Notification No. S.O. 3252 (E) dated 22/12/2014 shall be applicable to all educational institutions covered under the definition of educational institutions as mentioned in Noise Pollution (Regulation and Control) Rules, 2000. However, these educational</p>	---

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>institutions shall strictly implement the guidelines issued vide OM dated 9/06/2015 to ensure sustainable environmental management.</p> <p>4. It is further mentioned that if the size of the industrial shed is = 1,50,000 sq. mtrs of built-up area it shall be required to Obtain prior EC under item 8(b) of schedule to the EIA Notification 2006, irrespective of the type of industry/ utility it houses.</p> <p>5. Circulation of the order dated 06.03.2024 of Hon'ble High Court of Kerala in WP (C) No. 3097 of 2016 & OM on dated 30.04.2024 "The Hon'ble High Court of Kerala, vide order dated 06.03.2024, in WP (C) No. 3097 of 2016 in the matter titled One Earth One Life vs. The Ministry of Environment, Forest and Climate Change & Anr., has quashed and set aside the aforesaid Notification dated 22.12.2014.</p> <p>6. As per Notification on dated 29th January, 2025 S.O. 523(E)</p> <p>TABLE</p>	
2.	Supporting documents of Bhubaneswar Development Authority, where it mentions helipad is required for such height of constructed building.	<p>TABLE</p> <p>Source: BHUBANESWAR DEVELOPMENT AUTHORITY (PLANNING & BUILDING STANDARDS)</p> <p>REGULATIONS – 2008</p> <p>As per above building regulation the proposed building plan has a helipad in its terrace level at height of 81.0 m</p> <p>As per Odisha Development Authority (PLANNING & BUILDING STANDARDS) RULES-2020 General Building Requirements. — The general building requirements, states that:</p> <p>(v) buildings of height 200 meters and above shall have provision for a Helipad. (Page No-51)</p> <p>Hence as per the above guidelines, Helipad is not required.</p>	Not submitted supportive documents but mentioned as per BDA (Planning & Regulation) -2008
3.	The Project proponent shall submit an undertaking if they don't want to use Helipad in future proposed project. And	The project proponent has undertaken that they have no plans to use the helipad in the proposed project in future. Letter of Undertaking is attached as Annexure-1 .	Complied

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	if they want to keep then the PP shall follow rules for Helipad facility as per norms.		
4.	DLC Certificate from the concerned DFO to be submitted.	As per the approval from BDA vide letter no. 25685 on dated 29.10.2019 proposed incubation Centre (Research Laboratory and Data Processing) B+S+20 multi-storied institutions Building situated Over IDCO allotted plot no.-17/A corresponding Revenue Plot no. 320/3370 and 20 (P) Khata No.474/1607 at Mouza Para. Land schedule of the proposed project site is attached as Annexure-2 . In above said land schedule the kisam of the plot nos no. 320/3370 and 20 (P) of Khata No.474/1607 is "PATHARA BANIA"and "PATHARA TANGI". Proposed plots on which the project has been constructed was not comes under Jangal Jami.	DLC certificate from DFO not submitted
5.	Traffic Study Report shall be vetted by Institute of Repute.	Traffic Study Report is attached as Annexure- 3 .	Traffic study was submitted but not vetted
6.	A comparative table showing the earlier approved built-up area and the proposed construction.	----	Not submitted
7.	Copy showing that the proposed building was earlier built up for purpose of educational institute.	The approval from BDA vides letter no. 25685 on dated 29.10.2019 it was written as: Approval of proposed incubation Centre (Research Laboratory and Data Processing) B+S+20 multi-storied institutions Building Over IDCO allotted plot no.-17/A CORRESPONDING Plot no. 320/3370 and 20 (P) Khata No.474/1607 at Mouza Para. The above said letter is attached as Annexure-4 .	Complied
8.	Earlier approved BDA building plan mentioning the built-up area.	Earlier approved BDA building plan for approved Built up area of 36450 sqm is attached as Annexure- 5 .	Complied
9.	Certificate by BDA	The Construction of B+S+20 Mul□s-storied IT	Complied

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	approved Architect showing how much construction has been completed till now.	incubation Centre (Research Laboratory and Data processing Centre) Building for KIIT over IDCO allotted Plot.no.17/A Corresponding Revenue plot.no.320/3370 (p) and 20 (p), Khata no.474/1607, Mouza: Para, Bhubaneswar, the civil work of the building comprising of approved built of area of 36450.0 sq.mt is completed. Completion of that built up area was Certified by BDA approved Architect is attached as Annexure-6 .	

21. The site was inspected by sub-committee of SEAC on 13.11.2024 and it has been recommended **to** ask the PP to submit the following, if not submitted earlier:

- i) NOC/Permission for discharge of treated water with storm water from the appropriate authority. However, ZLD to be targeted.
- ii) Revised layout showing the fire corridor with correct width.
- iii) Data on: Approved built-up area, parking%, green belt%, solar power and population etc earlier and now (after commercial) in a Tabular form.
- iv) Whether the STP capacity is adequate to justify (for commercial use)
- v) Stack height and emission standard to maintain as per CPCB guideline.
- vi) Dual plumbing to be implemented
- vii) Structural certificate from appropriate authority
- viii) Permission from Land authority with regard to change of Kisam (if any) and change of purpose of utilisation.
- ix) An explanation on why this is not a violation case?
- x) All statutory clearances along with fire/safety.

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

- i) Supporting documents of Bhubaneswar Development Authority, where it mentions helipad is required for such height of constructed building.
- ii) DLC Certificate from the concerned DFO to be submitted.
- iii) Traffic Study Report vetted by Institute of Repute.
- iv) A comparative table showing the earlier approved built-up area and the proposed construction.
- v) NOC/Permission for discharge of treated water with storm water from the appropriate authority. However, ZLD to be targeted.
- vi) Revised layout showing the fire corridor with correct width

- vii) Data on: Approved built-up area, parking%, green belt%, solar power and population etc earlier and now (after commercial) in a Tabular form
- viii) Structural certificate from appropriate authority
- ix) Permission from Land authority with regard to change of Kism (if any) and change of purpose of utilisation.
- x) The explanation to violation case is not satisfactory, hence PP to submit why the project cannot be a violation case as the application is for Commercial use.

22. The SEAC in its meeting held on dated 19.04.2025 decided to take decision after receipt of the following information & documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	Supporting documents of Bhubaneswar Development Authority, where it mentions helipad is required for such height of constructed building.	Source: Bhubaneswar Development Authority (Planning & Building Standards) Regulations – 2008 As per the above building regulations, the proposed building plan included a helipad at the terrace level at a height of 81.0 meters. The layout plan was submitted in 2019, at which time a helipad was required for buildings of such height. However, as per the Odisha Development Authority (Planning & Building Standards) Rules – 2020, under General Building Requirements (Page No. 51), it is stated that: <i>“Buildings of height 200 meters and above shall have provision for a helipad.”</i> Therefore, according to the updated guidelines, a helipad is no longer required for the proposed building. The project proponent has confirmed that there are no plans to use the helipad in the proposed project in the future. A Letter of Undertaking is attached as Annexure-1 .	No supportive document submitted from BDA. The project proponent has confirmed that there are no plans to use the helipad in the proposed project in the future. A Letter of Undertaking is attached as Annexure-1 .
ii)	DLC Certificate from the concerned DFO to be submitted.	As per the approval from BDA vide letter no. 25685 on dated 29.10.2019 proposed Incubation Centre (Research Laboratory and Data Processing) B+S+20 Multi-storied Institutional Building situated Over IDCO allotted plot no.-17/A corresponding Revenue Plot no. 320/3370 and 20 (P) Khata No.474/1607 at Mouza Paa. Land schedule of the proposed project site is attached as Annexure-2 In above said land schedule the kism of the plot nos	DLC certificate not submitted

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent					Views of SEAC
		no. 320/3370 and 20 (P) of Khata No.474/1607 is "PATHARA BANIA" and "PATHARA TANGI". Proposed plots on which the project has been constructed was not comes under Jangal Jami.					
iii)	Traffic Study Report vetted by Institute of Repute.	The vetted Traffic Report is attached as Annexure-3 .					Complied
iv)	A comparative table showing the earlier approved built-up area and the proposed construction.	Sl no.	Year of the approval	2019	2024	Remarks	Complied
		1	Built up area	36450 sqm	36450 sqm	No change	
		The built-up area (36450 sqm) in the earlier approved plan (2019) and the currently proposed construction (2024) remains the same. Conditional approval was granted in 2019 vide letter no. 25685/BDA On Dated 29/10/2019, which remained valid up to 2024. The final BDA Approval was obtained vide file no: BPBA-RV-1179-2018 on dated 28/03/2024. There has been no change in the built-up area, only the utilization of the building has been revised in the current proposal submitted for Environmental Clearance from Institutional to IT Incubation Center (Official Building). Copy of BDA Approval Letter on dated 29/10/2019 and 28/03/2024 is attached as Annexure-4 .					
v)	NOC/Permission for discharge of treated water with storm water from the appropriate authority. However, ZLD to be targeted.	This is to submit that the project site is located within the Industrial Estate, Chandaka, where land has been allotted by the Orissa Industrial Infrastructure Development Corporation (IDCO) in favour of Kalinga Institute of Industrial Technology (KIIT). As per the certification issued by IDCO vide letter no-IDCO/WS & EC-I/D- 0118/2014-15 (PART)/1428 ON DATED 1/11/2014, the basic infrastructure facilities, including roads, drains, power, water supply, and street lighting, are provided by IDCO within the industrial estate. Since the proposed project of KIIT is located within this estate, the institution is permitted to utilize these infrastructure facilities. IDCO has explicitly stated that it has no objection to such usage. Accordingly, it is confirmed that the discharge of stormwater and treated wastewater from the project will be carried out through the existing drainage infrastructure provided by IDCO. Permission for discharge of treated water with storm water from proposed project site is attached as Annexure-5 .					IDCO in their letter mentioned that the basic infrastructure facilities, including roads, drains, power, water supply, and street lighting, are provided by IDCO within the industrial

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
			estate. Regarding discharge of waste water and storm water not mentioned.
vi)	Revised layout showing the fire corridor with correct width	<p>As per the Fire Safety Recommendation issued by the Chief Fire Officer, Fire Prevention Wing, Cuttack, for the proposed I.T. Incubation Centre (Research, Laboratory and Data Processing Centre) over Plot No. 17/A, Khata No. 474/1607, Mouza-Patia, Bhubaneswar, the following key compliance requirements have been addressed:</p> <p>The fire safety provisions for the proposed building have been designed in accordance with the Fire Safety Recommendation, File No: C-423-2019 (P-V) Is attached as Annexure-6.</p> <p>1. Occupancy & Classification:</p> <p>The building is classified as an Institutional Building as per Odisha Development Authorities (Planning and Building Standards) Rules, 2020 and Group-E, Sub-Division E-2 as per NBCI-2016.</p> <p>2. Height & Layout:</p> <p>The building height is 81.00 m with B+S+20 floors including a terrace helipad. A comprehensive layout showing the fire corridor with correct width and required setbacks has been submitted.</p> <p>3. Access & Setbacks:</p> <ul style="list-style-type: none"> • 30m wide road access with 6.5m wide entry/exit gates. • Minimum 9m clear open space on all sides to facilitate fire tender movement. • Basement roof extending into driveway has required loadbearing capacity (45 tons), with certification to be obtained. <p>4. Fire Safety Infrastructure:</p> <ul style="list-style-type: none"> • Multiple staircases (8 total) and fire exits with proper dimensions and distances. • Fire towers, pressurized staircases, and ventilated escape routes. • Refuge areas to be provided at intervals of 15 m above 24 m building height. • Compartmentation and fire-rated enclosures (minimum 120 min) in basements and floors. 	Revised layout map showing fire corridor not submitted

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent					Views of SEAC
		<ul style="list-style-type: none">Pressurization & smoke exhaust systems installed as per NBCI-2016. 5. Fire Fighting Installations: <ul style="list-style-type: none">Fire extinguishers, hose reels, wet risers, yard hydrants, and automatic sprinkler systems.Underground tank (2,00,000 litres) and terrace tank (20,000 litres).Dedicated fire pump sets (2850 LPM electric/diesel, 180 LPM for hose reels). 6. Lifts: <ul style="list-style-type: none">Multiple lifts including fireman lift extending from stilt to top floor (plan to be updated to include 14th & 18th floors).Lift shafts/lobbies to be pressurized and cross-ventilated. 7. Electrical & Mechanical Services: <ul style="list-style-type: none">MV panel room with 120 min fire-rated construction.All transformers with nitrogen injection or HVWS system.Emergency backup power for firefighting and life safety systems.					
vii)	Data on: Approved built-up area, parking%, green belt%, solar power and population etc earlier and now (after commercial) in a Tabular form	Sl no.	Year of the approval	2019	2024	Remarks	Complied
		1.	Built up area	36450 sqm	36450 sqm	No change	
		2.	Parking area	10877.00 sqm (41% FAR area)	10877.00 sqm (41% FAR area)	No change	
		3.	Greenbelt area	2048 m2 (23 % of total plot area)	2048 m2 (23 % of total plot area)	No change	
		4.	Solar power	200 KW (5% of Total power demand)	200 KW (5% of Total power demand)	No change	
		5.	Population	3056 nos (including floating/visitors)	3056 nos (including floating/visitors)	No change	
		The area details mentioned in the earlier conditional approval letter issued by BDA in 2019 and those in the final approval letter remain the same. Conditional approval was granted in 2019 vide Letter No. 25685/BDA dated 29/10/2019, which remained valid up to 2024. The final BDA approval was obtained vide File No.					

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		BPBA-RV-1179-2018 dated 28/03/2024. There has been no change in the area details; only the utilization of the building has been revised in the current proposal submitted for Environmental Clearance — from Institutional use to an IT Incubation Center (Official Building). Copies of the BDA approval letters dated 29/10/2019 and 28/03/2024 are attached as Annexure-4 .	
viii)	Structural certificate from appropriate authority	Report on Design Adequacy of PROPOSED B+S+20 MULTI-storied I.T Incubation Centre (Research Laboratory and Data Processing Centre) for KIIT University in Bhubaneswar, Odisha by Structural Engineering Division Department of Civil Engineering Indian Institute of Technology Madras Chennai - 600 036. Copy of Structural certificate is attached as Annexure-7 .	Complied
ix)	Permission from Land authority with regard to change of Kisam (if any) and change of purpose of utilisation.	The land in question, situated over Plot No. 17/A, Revenue Plot No. 320/3370(P) & 20(P), Khata No. 474/1607, Mouza-Patia, Bhubaneswar, measuring 2.20 acres, has been allotted by IDCO to Kalinga Institute of Industrial Technology (KIIT) under a registered lease deed dated 02.02.2016. The recorded Kisam of the land is "Gharabari", which is suitable for building/institutional purposes. As per the terms and conditions of the lease agreement, the land was allotted for establishing an Institution, and construction has been carried out accordingly with BDA approval for an Institutional Building. The current proposal seeks Environmental Clearance for revised utilization as an IT Incubation Centre (Official Building), which still falls under the broad category of institutional or permitted commercial/institutional use, and no change of Kisam is involved. Hence, the purpose remains consistent with the original intent of the allotment, and no separate permission is required for change of Kisam or land use. A copy of the IDCO Lease Deed is attached herewith as Annexure-8 for reference.	Complied
x)	The explanation to violation case is not satisfactory, hence PP to submit why the project cannot be a violation case as the	PROJECT NAME: Proposal for environment clearance of Office building (B+S+20) I.T Incubation center (research, laboratory & data processing center) for KIIT university over IDCO Plot No. – 17/A and Revenue Plot no.- 3340/3370 at Patia, Bhubaneswar, Odisha Detail - (SW No.: SW/209832/2024) Type of Proposal -New (Proposal for environment clearance of Office building (Change in activity from institutional to I.T Incubation center, research, laboratory & data processing center) for KIIT University. Explanation as non-violation for the application	The project is on land allotted by IDCO. The purpose of allotment of land is for institutional purpose usage. The

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	application is for Commercial use.	<p>for Commercial use:</p> <ol style="list-style-type: none"> 1. The building was previously an institutional building and now changing to I.T Incubation center only. The commercial use is mentioned to streamline the project with the local area as the vicinity is having commercial activities like hospitals, restaurants, offices etc. and related traffic and population load. 2. As per the Environmental Impact Assessment (EIA) Notification S.O. 1533(E) dated September 14, 2006, and its subsequent amendments, this project falls under Category 8(a) – Building and Construction Projects, which mandates obtaining prior Environmental Clearance (EC) from the State Environment Impact Assessment Authority (SEIAA) in Odisha. This requirement applies because the total built-up area of the industrial shed/institutional buildings exceeds 20,000 square meters, The total built-up area of the project is proposed as 36450 sqm and the total land area is 2.20 Acres./ 0.8903084 Ha/ 8903.0841 sqm. 3. As per the Environmental Impact Assessment (EIA) Notification S.O. 3252 (E) dated 22nd December, 2014. The projects or activities shall not include industrial shed, school, college, hostel for educational institution, but such buildings shall ensure sustainable environmental management, solid and liquid waste management, rain water harvesting and may use recycled materials such as fly ash bricks – Construction of this project was started after the above date. 4. OM dated 9/06/2015 clarifying that Notification on dated 22/12/2014 provides exemption to buildings of educational Institution including university from obtaining prior EC under the provisions of EIA Notification 2006 subject to sustainable environmental management and provided a set of guidelines to be followed for building projects to ensure sustainable environmental management – The project has envisaged and incorporated sustainable environmental management Plan. 5. Project proponent has received plan approval for the I.T Incubation center Including research laboratory & data processing center) for KIIT University at Patia, Bhubaneswar, Odisha in year 2019 vide letter no.-25685 (copy attached) and final approval vide letter no. 	<p>building was constructed for this purpose and EC was not necessary for this purpose. The PP has made a new EC application stating that the building is for official use for which prior EC is mandatory. The explanation submitted by the PP under ADS has not brought out any new fact in support of the current application proving that it is not a case of EC violation for the stated purpose of usage of the building (office purpose) as the</p>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>28.03.2024 (copy attached).</p> <p>6. Land will be used for construction of Institutional building with research laboratory & data processing Block, Academic and Research facilities, different types of office Block, faculties chamber with Ancillary Infrastructures like Playgrounds, Parking Facilities, Open Landscaped Spaces, Amenities and Services for Patients, staff, student and Visitors, Extensive waiting areas etc.</p> <p>7. The project proponent started construction work in 2021 (Source: Post Google Earth Image – copy attached)</p> <p>8. The construction work was stopped as per Office Memorandum dated: 30 April 2024.</p> <p>9. The proponent applied for Environmental Clearance on 1st October 2024.</p> <p>10. The SEAC presentation took place on 19th October 2024.</p> <p>11. Although the Ministry of Environment, Forest and Climate Change (Issued a notification on January 29, 2025, exempting certain building and construction projects from the requirement of prior EC, the Supreme Court of India, through an interim order dated February 24, 2025, has stayed the operation and implementation of this notification. Consequently, the original provisions of the EIA Notification, 2006, remain in effect, and the project must obtain prior EC as stipulated.</p> <p>12. We have replied the ADS on dated-25.03.2025.</p>	<p>constructed area exceeds 20000 m² and prior EC is mandatory for official buildings. The PP is also required to submit all the clarifications stated in the draft proceedings.</p>

After detailed discussion the SEAC decided to take decision on the proposal after receipt of above information and documents from the project proponent.

- i) Supportive document from BDA regarding requirement of Helipad for such height of constructed building.
- ii) DLC Certificate from the concerned DFO to be submitted
- iii) Layout showing fire corridor with dimensions.
- iv) As per compliance report utilization of the building has been revised and no change in BUA. However, 2019 approval of BDA also refers to the building as Incubation centre (Research Lab and Data processing) as referred now for EC. All parameters including population remained the same. How utilization got changed need details with justifications and clarifications.

ITEM NO. 03

PROPOSAL OF AMENDMENT IN TERMS OF REFERENCE FOR BENIPOKHARI STONE QUARRY - I, II & IV (CLUSTER APPROACH) OVER AN AREA OF 34.63 ACRES OR 13.99 HA (TOTAL CLUSTER AREA I.E. I, II, III, IV & V IS 57.36 ACRES OR 23.18 HA) AT VILLAGE- BENIPOKHARI, TAHASIL- LANJIGARH, DISTRICT- KALAHANDI OF SMT. SANTIPRIYA SAHOO– MOD TOR.

Proceedings of the SEAC meeting held on 25.08.2025

Environmental Scientist, SEAC

1. This proposal is for amendment of Terms of Reference (TOR) for Benipokhari Stone Quarry - I, II & IV (Cluster Approach) over an area of 34.63 acres or 13.99 ha (Total cluster area i.e. I, II, III, IV & V is 57.36 acres or 23.18 ha) at Village- Benipokhari, Tahasil- Lanjigarh, District- Kalahandi of Smt. Santipriya Sahoo.
2. **Category:** This is a Category–B project which falls under schedule 1(a)-Mining of Minerals as per the EIA Notification, 2006 and amendments thereafter.
3. **Project details:** The project has already obtained the Terms of Reference (TOR) under violation category proposal number SIA/OR/MIN/425578/2023. After obtaining the TOR, the project proceeded with the required steps for Environmental Clearance (EC), including submission of draft EIA-EMP report & conduct of public hearing. The Supreme Court verdict regarding the grant of EC for projects categorized under violation is pending. Due to this, the processing of the **EC application is currently on hold**. Upon further review, it has been determined that no violation has actually occurred for this project. In light of the above, an amendment in the already granted TOR is now being proposed to remove the violation tag and correct the classification.
4. **Environment Consultant:** The applicant **Smt. Santipriya Sahoo (represented by authorized personnel Mr. Manas Ranjan Mohanta)** made a presentation on the proposal before the Committee.

Considering the information furnished by the project proponent **Smt. Santipriya Sahoo**, the SEAC decided to take decision on the proposal after receipt of following from the proponent:

- i) Justification why the violation cannot be considered for the proposed project as initially Tahasildar has declared it under violation category.
 - ii) An undertaking jointly made by concerned Mining Officer and Tahasildar clearly mentioning that neither in present nor in past, there has been any violation in the mine. Further, if any information provided be wrong, both the concerned Mining Officer and Tahasildar shall be responsible for the same.
 - iii) Timeline of the events from the date of issue of the violation ToR till the date of proposal application.
5. The SEAC in its meeting held on dated **01.07.2025** decided to take decision after receipt of the following information and documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	Justification why the violation cannot be considered for the proposed project as initially Tahasildar has declared it under violation category.	A thorough verification of the available records concerning the Benipokhari Stone Quarry (Cluster Approach) has been conducted at both the Mining Office and the Tahasil Office. Upon review, no information indicating any violation -either past or present -was found.	Complied

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC												
		Therefore, we kindly request that this project be considered as a “No-Violation” case for all official and administrative purposes.													
ii)	An undertaking jointly made by concerned Mining Officer and Tahasildar clearly mentioning that neither in present nor in past, there has been any violation in the mine. Further, if any information provided be wrong, both the concerned Mining Officer and Tahasildar shall be responsible for the same.	The Joint-Undertaking from the Tahasildar & Mining Officer is attached herewith as Annexure-II.	Complied												
iii)	Timeline of the events from the date of issue of the violation ToR till the date of proposal application.	<div>The detail timeline of the events is given below:</div> <table><tr><th>EVENTS</th><th>DATE</th></tr><tr><td>ToR Grant</td><td>12.05.2023</td></tr><tr><td>Public Hearing</td><td>16.12.2023</td></tr><tr><td>EC Application</td><td>25.12.2024</td></tr><tr><td>Rejection of EC application</td><td>15.04.2025</td></tr><tr><td>Amendment of ToR application</td><td>20.05.2025</td></tr></table>	EVENTS	DATE	ToR Grant	12.05.2023	Public Hearing	16.12.2023	EC Application	25.12.2024	Rejection of EC application	15.04.2025	Amendment of ToR application	20.05.2025	Complied
EVENTS	DATE														
ToR Grant	12.05.2023														
Public Hearing	16.12.2023														
EC Application	25.12.2024														
Rejection of EC application	15.04.2025														
Amendment of ToR application	20.05.2025														

This project is under **MOD TOR** and has already obtained the Terms of Reference (TOR) under violation category proposal number SIA/OR/MIN/425578/2023. After obtaining the TOR, the project proceeded with the required steps for Environmental Clearance (EC), including submission of draft EIA-EMP report & conduct of public hearing. The Supreme Court verdict regarding the grant of EC for projects categorized under violation is pending. Due to this, the processing of the **EC application is currently on hold**. Upon further review, it has been determined that no violation has actually occurred for this project. In light of the above, an amendment in the already granted TOR is now being proposed to remove the violation tag and correct the classification.

So SEAC may decide for the following proposal whether to give fresh TOR and public hearing

Considering the information / documents furnished by the project proponent **Smt. Santipriya Sahoo** the SEAC prescribed the following specific ToRs in addition to standard ToRs in cluster approach as per **Annexure – B** for conducting detailed EIA study.

- i) Installation of STP of adequate capacity and requisite design.
- ii) Copies of Previous obtained EC for the quarries.
- iii) Traffic study duly vetted by reputed institution.
- iv) Green belt in safety zone of each mine and all-round the clusters to be confirmed with details.
- v) Arrangement of pipeline sprinkling (permanent water line) to be explored and confirmed.
- vi) Silt management and SOP for the same to arrest /remedy of silt ingress to surrounding agricultural lands.
- vii) Kisam of land to be submitted.
- viii) Safety measures during blasting including provision of warning to be submitted.
- ix) Map showing ESZ, Sanctuary boundary and lease boundary.
- x) Distance of nearest elephant corridor (if any) from cluster.
- xi) Site photographs along with the consultant.
- xii) Individual mining plan for each quarry/mine in the cluster as the proponent has submitted cluster mining plan.
- xiii) Standard Operating Procedures (SOP) for Blasting of all the quarries along with blasting management.
- xiv) Measures of dust control.
- xv) Details of any court case if any pending for the cluster or any of leases under it.

ITEM NO. 04

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR M/S. HIGH GRADE MINERAL PRIVATE LIMITED (HGMPL) FOR IRON ORE BENEFICIATION PLANT OF CAPACITY 9,60,000 TPA OVER AN AREA 6.98 ACRES LOCATED VILLAGE DUBUNA, BARBIL, DIST- KEONJHAR OF SRI GANESH KUMAR SHARMA - EC

1. This proposal is for Environmental Clearance for M/s. High Grade Mineral Private Limited (HGMPL) for Iron Ore Beneficiation plant of capacity 9,60,000 TPA over an area 6.98 acres located Village Dubuna, Barbil, Dist- Keonjhar of Sri Ganesh Kumar Sharma.
2. **Category:** As per EIA Notification, 2006 and its subsequent amendments, the proposed project falls under Category B in Schedule in item 2(b) - Mineral Beneficiation.
3. **Terms of Reference (ToR):** Terms of Reference (ToR) was issued by State Environment Impact Assessment Authority (SEIAA), Odisha vide File No. 449057/50-IND1/11-2023 dated

2nd April 2024, later on ToR has been amendment vide file No-449057/50-IND1/11-2023 dated 20th November 2024.

4. **Public Hearing:** The Public Hearing was conducted on 21.03.2025 at Mouza - Dubuna, (Khata No.95, (Rakhita), Plot No.695, Proposed area: Ac.2.390 Dec., Kissam: Bastijogya) in Keonjhar District, Odisha. The main issues raised during public hearing were: Control of Dust & Smoke nuisance in the locality. Protection of Dubuna, Mundasahi, Gopalsahi, Patrasahi & Totasahi from Pollution due to plant operation. Provision of water sprinkling on roads for dust suppression. Adequate steps to prevent Air, Water & Noise Pollution in the nearby villages. Priority to locals in direct employment as per the qualification of the villagers of Dubuna, Mundasahi, Gopalsahi, Patrasahi & Totasahi. Provision of Hospital & Ambulance facility in the villager. Periodical Health Check-up of villagers. Provision of Good School & College in the village. Skill Development trainings for villagers. Provision of electricity and drinking water supply all around the villages. Other Developmental Works in villages. The total budget allocated for implementation of public hearing issues are – CER Budget - Rs.217.40lakhs.
5. **Location and connectivity:** The Beneficiation Unit is located at village- Dubuna, Tehsil- Barbil, Dist- Keonjhar, Odisha of M/s High Grade Mineral Pvt. Ltd. The ML area is covered under the SOI topo sheet No. 73 G/5. Latitude- 21° 51' 02.9" N & Longitude- 85° 24' 17.3" E. The iron ore beneficiation plant located at Village Dubuna, Barbil, Dist: Keonjhar, Odisha. Project Site is located from Joda-Bamebari-Palaspunga road at a distance 1.95km and from the NH 520 at a distance of 25Km. Nayagarh Railway Station is at a distance of 3.30 Km in SE direction. Biju Patnaik International Airport, Bhubaneswar is 264 km away from the project site.

6. **Land Use Details:**

Sl. No.	Type of Land Use	Land Use (in Acre)	Land Use (in Ha)
i)	Plant area	2.25	0.91
ii)	Iron ore and product storage area	0.90	0.36
iii)	Green Belt Area	2.32	0.94
iv)	Road Area	0.30	0.12
v)	Parking Area	0.44	0.18
vi)	Water Reservoir	0.30	0.12
vii)	Admin Building & Others	0.16	0.06
viii)	Emergency Settling Pond	0.3 0	0.12
Total		6.98	2.82

7. **Details of Minerals:** The proposed project is for Beneficiation facility of Iron ore with throughput of 9,60,000 TPA (throughput) capacity.
8. **Summary of Products generated by the project:**

Unit	Product	Proposed
i)	Jig Beneficiated Coarse Ore (+) 4 mm to (-) 18mm	4,38,720 TPA
ii)	Concentrated Iron Ore	1,31,712 TPA
Total		5,70,432 TPA

9. **Details of crushers/screen/beneficiation plant if any with capacity and numbers, water requirement for the project, plantation details, green belt details:**

Material	Fe (%)	Yield (%)	Annual Qty (MT)
Raw Ore	54.5	100	9,60,000
Jig Beneficiated Coarse Ore (+) 4 mm to (-) 18mm	62	45.7	4,38,720
Jig Discard (+) 4 mm to (-) 18mm	40	11.8	1,13,280
Concentrated Microns	62	13.72	1,31,712
Tailings from fines circuit (-) 75 microns	31	28.78	2,76,288

10. **Details of waste generated:** Total 2,76,288 TPA of tailings (Waste) will be generated.

Sources	Solid Wastes	Quantity	Disposal practice
Beneficiation	Tailings	276288 TPA	Shall be sold to Brick Manufacturer.
Canteen	Food waste	10 Kg/day	Sold to recycler
Office	Wastepaper	10.5 Kg/day	Sold to recycler

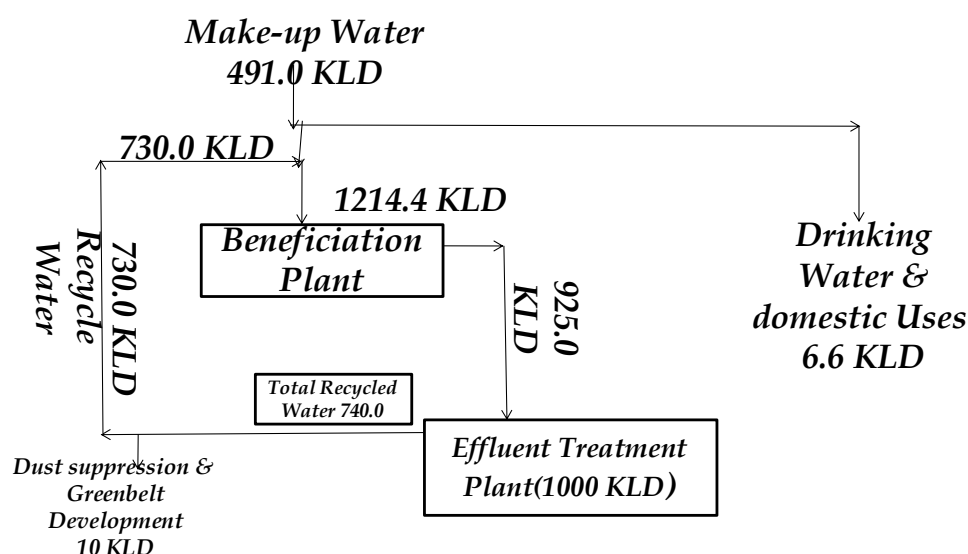
11. **Mitigation of waste produced:** Around 7,20,000 TPA tailing will be generated from the purposed beneficiation unit. This solid waste is in the cake form, with 100-200 mesh particles containing 20-25% moisture after filter press. After natural drying, it loses moisture & becomes powder. This tailing will be stored in a demarcated area for temporary period and later on it will be sold to Brick Manufacturer.

12. **Baseline study details:** Baseline Study was conducted in March 2023 to May 2023.

AAQ Parameters at 08 locations	PM _{2.5} = 28.26-46.25 µg/m ³ PM ₁₀ = 56.6-80.2 µg/m ³ SO ₂ = 4.2-12.05 µg/m ³ NO ₂ = 9.51-20.13 µg/m ³ CO = <0.1 to 0.40 mg/m ³
Groundwater quality at 05 locations	pH: 6.69 to 6.94, Total Hardness: 124 to 170 mg/l, Chlorides: 38.9 to 55.9 mg/l, Fluoride: <0.05 mg/l, TDS: 212 to 316 mg/l.
Surface water quality at 05 locations	pH: 6.70 to 7.24, TDS: 137.8 to 182 mg/l, Chlorides: 34.9 to 40.9 mg/l, Fluoride: 0.14-0.22 mg/l, Total Coliform: 240 to 350 MPN/100ml.
Noise levels at 08 locations	47.2 to 49.2 dBA for daytime and 37.0 to 42.1 dBA for night time.
Soil quality at 05 locations	Soil Texture: Sandy Clay, Sand: 52-66%, Silt: 15-20%, Clay: 22-33%, Porosity: 31-37%.

13. **Water requirement:** Total fresh water requirement for the proposed project is 491.0 KLD. Out of which 6.6 KLD of water will be utilized for drinking water and domestic purpose. 1214.4 KLD water will be used in beneficiation process. Out of which, 925.0 KLD of water recycled through ETP having capacity 1000 KLD. Out of total recycled water

10KLD of water will be used in dust suppression and greenbelt development, rest 730.0KLD of water will be used for the beneficiation process.



14. **Rain Water Harvesting Details:** Total 6253.61 m³ rain water will be harvested.
15. **Power Requirement** – The total connected load for the iron ore beneficiation plant including crushing & screening shall be around 3.5 MW.
16. **Greenbelt development:** 33 % of total plant area (2.32 Acres or 0.94 Ha.) will be available for the green belt. The green belt plan will include plantation along the roads and around various facilities like shops and offices. Greenbelt development along the plant boundary attenuates noise level, arrests dust, and improves the surrounding environment. Plantation will be carried out in 0.94 Ha. with the 2350 saplings (@2500/Ha.) with spacing 2m .
17. **Manpower requirement:** It has been calculated that the manpower for the project is Construction Phase: 60 Nos. Operation phase: 148 Nos. (48 Nos. Direct Employment & 100 Nos. Indirect Employment).
18. **Project cost:** The total cost of the project is 46 Crores and EMP cost is 64.79 Lakhs.

Sl. No	Details	Quantity	Amount (Cost in Lakhs)
i)	Design and Engineering	Lump sum	20.00
ii)	Civil Work	2900 Cu.M	503.00
iii)	Structural Steel Work	1050 MT	830.00
iv)	Plant and Machinery	--	2739.00
v)	Electricals incl. MCC, Controls & Cabling	1 Lot	140.00
vi)	Sub - station	1 Lot	30.00
vii)	Erection & Commissioning	1 Lot	145.00
viii)	Land Development, Boundary walls, Internal Roads & Drains		70.00
ix)	Bore well with pumps		8.00

Sl. No	Details	Quantity	Amount (Cost in Lakhs)
x)	Administrative Building, Canteen, Stores, Parking etc.		65.00
xi)	Entry gate, Security Rooms, Time office		25.00
xii)	Pollution Control Equipment		25.00
Total Project cost			4600

Sl. No	Environmental Parameters	Capital Cost (Lakhs)	Recurring Cost (Lakhs)
i)	Control Equipment's and Post Environmental Monitoring Cost	30.00	8.70
ii)	Tailing Waste Management	10.00	1.50
iii)	Occupational Health & safety	10.00	8.00
iv)	Maintenance of Plantation	--	2.00
	Plantation within the plant	14.79	--
Total for Green Belt and Plantation		14.79	2.00
Sub Total		64.79	20.20

19. **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.

Considering the information furnished and the presentation made by the consultant, **M/s Centre for Envotech & Management Consultancy Pvt. Ltd, Bhubaneswar** with the project proponent, the SEAC decided to take decision after receipt of the following from the proponent.

- Documents/ Agreement indicating the utilization of the tailings having (- 40 mm) iron content.
- Material balance of each unit operation and tailings generated.
- Detailed breakup of the input & output according to size distribution.
- Transportation plan to be revised and traffic load to be calculated on per hour basis.
- Note on the total material handling and production details on hourly basis.
- Production calculation according to 2 shifts followed.
- Traffic study vetted by Institute of repute.
- Detailed EMP budget with mitigation measures of each.
- Detailed note on the surface run-off treatment system and its management.
- Details of the diesel holding capacity required for the DG set and required permission from concerned authority.

20. The SEAC in its meeting held on dated **13.06.2025** decided to take decision after receipt of the following information and documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
ix)	Documents/ Agreement indicating the utilization of the tailings having (- 40 mm) iron content.	The agreement indicating the utilization of the tailings having (-40 mm) iron content is attached as Annexure-1 .	Complied
x)	Material balance of each unit operation and tailings generated.	Material balance of the same is attached as Annexure-2 .	Complied
xi)	Detailed breakup of the input & output according to size distribution.	Detailed breakup of the input & output according to size distribution is attached as Annexure-3 .	Complied
xii)	Transportation plan to be revised and traffic load to be calculated on per hour basis.	Revised transportation and traffic load is being calculated per hour basis and is attached as Annexure-4 .	Complied
xiii)	Note on the total material handling and production details on hourly basis.	Note on the total material handling and production details on hourly basis is attached as Annexure-5 .	Complied
xiv)	Production calculation according to 2 shifts followed.	Production calculation according to 2 shifts is being followed and calculated. The same is attached as Annexure-6 .	Complied
xv)	Traffic study vetted by Institute of repute.	Traffic Study report has been vetted by IIT, Bhubaneswar and the same is attached as Annexure-7 .	Complied
xvi)	Detailed EMP budget with mitigation measures of each.	Detailed EMP budget with mitigation measures of each is attached as Annexure-8 .	Complied
xvii)	Detailed note on the surface run-off treatment system and its management.	Detailed note on the surface run-off treatment system and its management is attached as Annexure-9 .	Complied
xviii)	Details of the diesel holding capacity required for the DG set and required permission from concerned authority.	Details of the diesel holding capacity required for the DG set and required permission from concerned authority is being complied by the Project Proponent and is attached as Annexure-10 .	Complied

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

- i) The wastewater that will be generated from the tailings shall be treated in ETP following appropriate standard technical procedure.
- ii) As per the agreement submitted, the unit shall utilize the tailings having (40%Fe) iron content.
- iii) The PP shall obtain NOC from the concerned authority to use the roads for transportation of both input materials and finished products including the responsibility of maintaining the road if damaged by such transportation.
- iv) As the PP will implement the dry stacking of tailings, there will be trickling down of effluent. Also, during rain, the leached effluent from stack will trickling down. PP shall ensure collection of these effluents for treatment with routine analysis to ensure satisfying the standard before it is discharged. All data shall be kept for periodical compliances.
- v) The surface runoff from tailings stack yard and raw material handling area shall be properly treated and use to maximum extent. Discharge if any shall meet prescribed standard for discharge into inland surface water.
- vi) The PP shall maintain ZLD for beneficiation process wastewater.

ITEM NO. 05

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S BHAWANI APARTMENT PRIVATE LIMITED FOR PROPOSED (3S+12) STORIED RESIDENTIAL APARTMENT BUILDING “BHAWANI KUSH” FOR M/S BHAWANI APARTMENT PVT. LTD. LOCATED AT MOUZA-KESORA, BHUBANESWAR, DIST- KHURDA OF SRI BIJAY KUMAR BARICK - EC

1. This proposal is for Environmental Clearance of M/s Bhawani Apartment Private Limited for Proposed (3S+12) Storied Residential Apartment Building “Bhawani Kush” for M/s Bhawani Apartment Pvt. Ltd. located at Mouza - Kesora, Bhubaneswar, Dist- Khurda of Sri Bijay Kumar Barick.
2. **Category:** This is a Category – B project which falls under schedule 8(a): Building & Construction Projects as per the EIA Notification 2006 and amendments thereafter.
3. **Project details:** M/s Bhawani Apartment Pvt. Ltd. has Proposed (3S+12) Storied Residential Apartment Building “Bhawani Kush” on Plot Area: 5449.05 sqm (1.346 Acres) and total Built up area: 32031.95 sqm.
4. **Statutory clearances obtained:**
 - Bhubaneswar Development Authority (BDA) has provisionally approved the building plan vide letter No. SUJOG/OBPS/NOC/2024/081, Bhubaneswar, dated: 24/12/2024.
 - Ground Water clearance from CGWA vide NoC No. NOC/INF/OD/2025/1919/N, dated 10.02.2025.

- Height Clearance Airport Authority of India (AAI) vide NOC ID No. BHUB/EAST/B/012825/1525291, dated 11.02.2025.
- Fire Safety Recommendation from Odisha Fire & Emergency Services vide recommendation No. RECOMM1204130012025002933, dated 24.03.2025.

5. **Location and Connectivity:** The proposed site is located at Plot No.- 705, 705/3472, 705/3474, 705/3126, 705/3125 & 703/3739, Khata No.- 514/2930, 514/2933, 514/3170, 514/3169, 514/3029 & 514/3802, Mouza- Kesora, Bhubaneswar, Dist- Khurda, Odisha. The Geographical co-ordinate of the project site is: Latitude- 20°16'20.42" N & Longitude- 85°52'51.79" E. The project site is well connected with Puri Bypass Road (National Highway-316), which take towards National Highway-16 (Kolkata-Chennai Road). Puri Bypass Road (National Highway-316) is at a distance of 1.0 Km from proposed site. The nearest Railway Station is Bhubaneswar Railway station at a distance of approx. 3.8 Km in South-West direction. The nearest airport is Biju Patnaik Airport at a distance of approx. 7.3 Km in South-West direction from project. The project is not located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) as notified by the MoEF&CC
6. The site is coming under which Development Authority– Bhubaneswar Development Authority (BDA)
7. The total plot area is 5449.05 sq.mt./1.346 Ac./0.545 Ha. with total built-up area 197840.87 sq.mt.
8. The Building Area Details of the Project in tabulated form

Particular	Permissible	Proposed
Proposed Project Name	Proposed (3S+12) Storied Residential Apartment Building “Bhawani Kush”	
Plot Area	Total Plot Area- 5449.05 sqm (1.346 Acres)	
Ground Coverage		2163.59 sqm (39.71%)
Total Built up Area	--	32031.95 sqm
Total FAR Area	--	21728.14 sqm
FAR	--	3.99
Maximum Height	--	40 m
Road Area	--	802.36 sqm
Stilt Parking	--	7156.09 sqm
Open Parking	--	347.17 sqm
Total Parking Area	--	7503.26 sqm
Green Belt Area	1089.81 sqm (20%)	1117.05 sqm (20.5 %)
Maximum No. of Floor	--	3S+12
Power/Electricity Requirement & Sources	--	1308.0 KW Source: TPCODL
No. of DG sets	--	1x500 KVA
Solar Energy	--	75.35 KW (5.76%)
Water requirement & Sources	--	110.0 KLD

		(Source: Ground Water)
Waste Water Generation	--	144.0 KLD
Sewage Treatment & Disposal	--	STP Capacity- 150 KLD
Total Rain Water Harvesting Pit	--	4 Nos.
Solid Waste Generation	--	588.6 kg/day
No. of Dwelling Units	--	220 Nos.
Estimated Population- Residential, Floating/visitors	--	Residential- 1188 Nos. Floating- 120 Nos.

- 9. Water Requirement and waste water management:** Fresh make up of 110.0 m³/day will be required for the project which will be sourced from Ground Water. Total waste water generated from the residential building is 144.0 KLD which is treated in STP of Capacity 150 KLD. Recovered treated water 136.8KLD will be utilized in Dust Suppression (3.5KLD), Landscaping (5.0KLD) and 72.3 KLD of treated water will be discharged to drain in non-monsoon period and 80.8KLD KLD of treated water will be discharged to drain in Monsoon period.

Table: Water requirement

Sl. No.	Description	Total Population	Per Capita Consumption (ltr/day)		Water Requirement		
					Domestic	Flushing	Total
1.	Residential Building	1188 nos.	Fresh (90)	Flushing (45)	106.9	53.5	160.4
2.	Floating	120 nos.	Fresh (25)	Flushing (20)	3.0	2.4	5.4
Total					109.9≈110	55.9≈56	165.8≈166

Table: Waste Water Management

Details	Water (KLD)
Water requirement for domestic purpose	110.0
Wastewater generated from domestic use (@ 80% of domestic water requirement)	88.0
Water requirement for Flushing Purpose	56.0
Wastewater generated from Flushing (@ 100% of flushing requirement)	56.0
Total Wastewater generated	88.0+56.0 = 144.0
Sewage Treatment Plant Capacity	150.0
STP Loss (5 % of wastewater generation)	7.2
Recycled water form STP @ 95% of wastewater generated	136.8
Landscaping	5.0
Dust Suppression	3.5

- 10. Power Requirement:** Total Power requirement of the proposed building is 1308.0 KW, Source is TPCODL, 1x500 KVA DG Set is provided as power backup.

Solar Power details - 40 Nos. of Solar Street Light poles of 2.9 KW capacities are directly connected with Solar Panel and 72.45 KW Solar energy generated from 35 nos. of PV Panel is

directly connected with electric grid. Total 75.35 KW Solar Power Generation which is 5.76% of total power required in project.

11. Rain Water Harvesting: Total 158cum of Rain Water will be harvested through 04 nos. of Rain Water recharging pits of capacity 36m³.

12. Parking Requirement: Total parking area provided is 7503.26 Sq.mt. and total 270 nos. of ECS and location of parking area is Stilt & Open.

Parking Area Provided			
Stilt Parking	--	--	7156.09 sqm
Open parking	--	--	347.17 sqm
Total Parking	--	--	7503.26 sqm
Equivalent Car Space Provided			
	Area (sqm)	Area/ECS	
Stilt Parking	7156.09	28	256 ECS
Open Parking	347.17	25	14 ECS
Total Parking Provided			270 ECS
Visitor Parking Area (10.06% of total Parking)			655.79 sqm
Differently Abled Parking Area			50.54 sqm
EV Charging Point Area (32.67% of total Parking)			1955.53 sqm

13. Fire fighting Installations: Fire Fighting will be provided as per NBC Norms.

14. Green Belt Development: Greenbelt is developed over an area of 1117.05 sqm which is 20.5% of the total plot area. Total 75 nos. of plants to be planted and 3 tier plantations.

15. Solid Waste Management: Solid waste generated and its management.

Solid waste Generation			
S. No.	Category	Counts (heads)	Waste generated (kg/day)
1.	Residents Population	1188 @ 0.45 kg/day	534.6 kg/day
2.	Floating Population	120 @ 0.15 kg/day	18.0 kg/day
3.	STP sludge		36.0 kg/day
Total Solid Waste Generated			588.6 kg/day

16. Project cost: The estimated project cost is 65.30 Crores and cost for EMP is 1.4 Crores.

17. 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.

Considering the information furnished and the presentation made by the consultant, **M/s Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar** along with the project proponent, the SEAC recommended the following:

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

Proceedings of the SEAC meeting held on 25.08.2025

Environmental Scientist, SEAC

- i) Supporting Land documents/agreement copies/ power of Attorney in favour of Project Proponent for the proposed plot area along with kissam of land. Supporting documents for conversion of land to Kissam Gharabari to be submitted
- ii) Revised layout showing green belt area and road width around the boundary of the project for free movement of vehicles.
- iii) Shifting of Transformer, DG Sets and Solid waste management process to inner zone of project site rather than keeping at entrance road corner. Revised layout to be submitted for the same.
- iv) NOC/Permission from concerned authority for discharge of additional load of storm and treated water to nearest public drain.
- v) Detailed note on excavated soil management.
- vi) Structural Stability Certificate.
- vii) Traffic Study Report to be vetted by Institute of repute.
- viii) Submit Fire recommendations.
- ix) Soil analysis report with respect to physical, chemical and engineering properties of soil shall be submitted.

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) Safety concern to be checked.
- vii) Any other issues including local issues.

18. The SEAC in its meeting held on dated **21.04.2025** decided to take decision after receipt of the following information and documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
xi)	Supporting Land documents/agreement copies/ power of Attorney in favour of Project Proponent for the proposed plot area along with kissam of land. Supporting documents for conversion of land to Kissam Gharabari to be submitted	Land documents/agreement copies/power of Attorney in favour of M/s Bhawani Apartment Pvt. Ltd. is attached in Annexure-1 .	Complied

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
xii)	Revised layout showing green belt area and road width around the boundary of the project for free movement of vehicles.	Layout plan showing Greenbelt area and Road width i.e. 6.0 m around the boundary of the project is attached in Annexure-2 .	Complied
xiii)	Shifting of Transformer, DG Sets and Solid waste management process to inner zone of project site rather than keeping at entrance road corner. Revised layout to be submitted for the same.	Transformer, DG Sets and Solid waste management area is shifted to inner zone of the project site. Revised layout plan is attached in Annexure-2 .	Complied
xiv)	NOC/Permission from concerned authority for discharge of additional load of storm and treated water to nearest public drain.	External Infrastructure Development Plan (EIDP) has been vetted by Office of the Chief Engineer, Drainage, Gandarpur, Cuttack vide File No. DW-II-M-18/25-3547, dated 23.07.2025. Drainage letter is attached in Annexure-3 .	Complied
xv)	Detailed note on excavated soil management.	Detail note on excavated soil management is attached in Annexure-4 .	Complied
xvi)	Structural Stability Certificate.	Structural Stability Certificate of the proposed building is attached in Annexure- 5.	Complied
xvii)	Traffic Study Report to be vetted by Institute of repute.	Traffic Study Report has been vetted by Indian Institute of Technology (IIT) Bhubaneswar on 21.07.2025. Traffic study report is attached in Annexure-6 .	Complied
xviii)	Submit Fire recommendations.	Fire Safety Recommendation has been obtained from Odisha Fire & Emergency Service vide Recommendation No. RECOMM1204130012025002933, dated 24.03.2025. Fire Recommendation letter is attached in Annexure-7 .	Complied
xix)	Soil analysis report with respect to physical, chemical and engineering properties of soil shall be submitted.	Soil analysis report is attached in Annexure-8 .	Complied

19. The proposed site was visited by the sub-committee of SEAC on 24.05.2025. Following are the observations of the sub-committee:

- I. Environmental settings of the project site: - The site is adjacent to public road. There are no trees inside project site.
- II. Verify if the site is a flood prone area: - The site is low lying area as compared to the adjacent public road level. To ensure proper drainage of rain water, the PP shall furnish RL of HFL of adjacent Nallah, existing ground level, stilt floor level to ascertain flood prone status of site.
- III. Construction activity if any started at the site and extent of construction activity: - A temporary house is under construction stated to be used by Guards to be engaged during project construction and to be demolished afterwards.
- IV. Road connectivity to the project site. The site is approachable to the public road.
- V. Drainage network at the site: - The excess rain water/ excess treated water is proposed for disposal to CADA nallah for which NOC from appropriate authority is required. NOC for the land in between project site and CADA nallah is required to be submitted by the PP.
- VI. Safety concern to be checked. The PP has to provide speed breakers on the approach road to project site to control the speed of vehicles engaged during construction while approaching the public road.

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

- i) **Demolition of temporary structure before implementation of project.**
- ii) The proponent shall obtain Permission from the Chief Engineer, Drainage / Concerned appropriate Authority for discharge of excess treated sewage water along with storm water to the nearest CADA nallah. Provision of necessary infrastructure for facilitating above-mentioned discharges shall be provided in own cost.
- iii) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.
- iv) The unit shall ensure proper drainage of rain water as it is a low lying area.
- v) Proper landscaping to be developed to prevent artificial flooding.
- vi) Internal drainage plan with RWH/Re-charge Pits to be taken up based on requirement and with approval of the authority.
- vii) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.
- viii) The proponent shall obtain permission from concerned Fire Safety Authority.
- ix) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.

- x) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
- xi) The PP will not commence construction unless the drain layout is finalized and permission given for the same by the authority to discharge excess treated water & storm water.
- xii) Before starting the construction project physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.
- xiii) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

ITEM NO. 06

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR MUNDILO-PATENIGAON SAND QUARRY OVER AN AREA OF 15.86 ACRES / 6.42 HECTARE ON RIVER BED OF DEVI RIVER AT VILLAGES - MUNDILO AND PATENIGAON, TAHASIL & DISTRICT – JAGATSINGHPUR OF SRI SUSHIL KUMAR MOHANTY - EC

1. This proposal is for Environmental Clearance of Mundilo-Patenigaon Sand Quarry over an area of 15.86 acres / 6.42 hectare on river bed of Devi River at Villages - Mundilo and Patenigaon, Tahasil & District – Jagatsinghpur of Sri Sushil Kumar Mohanty
2. **Category:** As per the MoEF, New Delhi Gazette dated 14th September 2006 amended in December 2009 and April 2011, this project falls under category B under Schedule of activity 1(a)-Mining of Minerals.
3. There is another mining lease sand quarry in other side of Devi River at 350m named as Kulashree Devi nadi sand quarry over an area of 11.403 acres / 4.613 Ha, located under Niali Tahasil of Cuttack district located within 500 metre radius periphery of proposed mining lease area of the proposed Mundilo - Patenigaon sand quarry. (Total cluster area – 11.033 Ha. /27.263 Acre).
4. Letter of Intent has been issued by Tahasildar, Jagatsinghpur vide letter no 2053 dated 25.06.2021.
5. The Mining plan has been approved by the Deputy Director Geology, Authorized Officer, Directorate of Geology, Bhubaneswar vide letter no - 8280 on dated 21.12.2020.
6. TOR details: Terms of Reference (ToR) was granted by SEIAA vide letter no. 3613/SEIAA dated 18.12.2021
7. **Public hearing details:** Public hearing was successfully executed on date 07.09.2022 at Ground Near Biju Pattanayak Smruti Bidyapitha, Patenigaon in Jagatsinghpur District, Odisha, as per the guidelines given in EIA Notification 14th September' 2006 and its subsequent amendment. Issues raised during the hearing are during transportation tarpaulin covering should be done on sand loaded vehicles to prevent the sand dust being air borne, employment, prevention of road accident due to spillage of sand from overloaded vehicles, proper maintenance of road, air pollution control, dust suppression, protection of river embankment and

plying of transportation vehicles in a regulated speed within permissible limit. CER Budget has been allocated is Rs. 1.2lakhs/annum towards public hearing issues.

S. No	Activities	Cost (Lakh/Annum) of CER budget				
		1st year	2nd year	3rd year	4th year	5th year
	Distribution of Books & Educational Kits	Mundilo Village 0.40 lakh	Mundilo Village 0.40 lakh	Mundilo Village 0.40 lakh	Mundilo Village 0.40 lakh	Mundilo Village 0.40 lakh
	Health Awareness Camp for local Community	Patenigaon Village 0.50 lakh	Patenigaon Village 0.50 lakh	Patenigaon Village 0.50 lakh	Patenigaon Village 0.50 lakh	Patenigaon Village 0.50 lakh
	Financial Assistance for Construction of Toilets in Consultation with Gram Panchayat.	Mundilo Village 0.30 lakh	Mundilo Village 0.30 lakh	Mundilo Village 0.30 lakh	Patenigaon Village 0.30 lakh	Patenigaon Village 0.30 lakh
	Total	1.2 Lakhs	1.2 Lakhs	1.2 Lakhs	1.2 Lakhs	1.2 Lakhs

8. **Location and connectivity:** The mine lease area is located in Villages - Mundilo and Patenigaon, Tahasil & District - Jagatsinghpur, Odisha, is on Khata no- 496 & 807, Plot no- 791 & 821(P) of Devi river covered in the Survey of India Toposheet No – 73H/15, 73H/16, 73L/3 & 73L/4 and is bounded between the Latitude - 20° 14' 21.60" N to 20°14'32.90" N and Longitude – 86°05'09.30" E to 86°05'20" E. Nearest railway bridge and river embankment is 24 km and 0.38 Km away from the mining lease boundary. River bridge passes though the lease area. Nearest Railway Station is Banbihari Gwalipur Railway Station is approx 17.0 km towards NE direction. Nearest Airport is Biju Patnaik International Airport is approx 28 km towards W direction. Nearest Highway is SH-60 is approx 8.0 km in SW direction. NH-55 is approx 14.0 km in NNE direction. No Ecological Sensitive Areas are present within 10 Km distance from the site.
9. **Topography and drainage:** Mundilo & Patenigaon Devi Nadi Sand Quarry is an undulating topographical feature having ground elevation difference of average 1m above 16 m MSL respectively. The lease area here is a river sand quarry. Drainage system in the region is dendritic. General flow direction of Devi River is from North to South.
10. **Reserves:** The total Geological Reserve of cluster is 131048 cum i.e. (Mundilo - Patenigaon Devi Nadi Sand Quarry = 60538 cum + Kulashree Devi River Sand Quarry = 70510 cum). Total Mineable Reserve is 105775 cum (Mundilo - Patenigaon Devi Nadi Sand Quarry = 45475cum + Kulashree Devi River Sand Quarry = 60300 cum).
11. **Total production:** The cluster sand mines lie on river bed Devi. The total production of sand from the cluster is 115374 cum. The average production of Mundilo – Patenigaon Devi Nadi Sand Quarry is proposed to be 8000 cum/year and 40000 cum is the total production during the plan period. The other operating quarry Kulashree Devi River Sand Quarry which is within 500 meters having an average production of 15078 cum/year and 75374 cum is the total production.

Year	Production (m ³)
1 st Year	8000
2 nd Year	8000
3 rd Year	8000
4 th Year	8000
5 th Year	8000
Total	40000

12. **Baseline study:** Baseline Study has been conducted for Winter Season i.e., from Dec 2021 to Feb, 2022. Following observations were made:

- a) **Ambient Air Quality:** Ambient Air Quality Monitoring reveals that the minimum & maximum concentrations of PM₁₀ for all the 7 AQ monitoring stations were found to be 58.54 µg/m³ at AQ2 and 82.73 µg/m³ at AQ7, respectively. The minimum & maximum concentrations of PM_{2.5} for all the 7 AQ monitoring stations were found to be 25.01 µg/m³ at AQ2 and 48.44 µg/m³ at AQ4, respectively as far as the gaseous pollutants SO₂ and NO_x are concerned, the prescribed CPCB limit of 80µg/m³ for residential and rural areas has never surpassed at any station. The maximum & minimum concentrations of SO₂ were found to be 14.58 µg/m³ at AQ1 & 6.03 µg/m³ at AQ2, respectively. The maximum & minimum concentrations of NO_x were found to be 22.50 µg/m³ at AQ1 & 10.40 µg/m³ at AQ 2, respectively.
- b) **Ground water Quality:** Analysis results of ground water reveal that the pH varies from 7.19 at GW4 to 7.64 at GW5 during study period. Total hardness varies from 229.70 mg/l at GW4 to 300.78 mg/l at GW5 during study period. Total dissolved solids vary from 288 mg/l at GW3 to 320 mg/l at GW1 during study period.
- c) **Surface water Quality:** The analysis results indicate that the pH ranges between 6.87 and 7.45. Dissolved Oxygen (DO) was observed in the range of 6.2 to 6.9 mg/l against the minimum requirement of 4 mg/l. BOD values were observed to be in the range of 3.8 – 4.0 mg/l. The chlorides and Sulphates were found to be in the range. Bacteriological examination of surface water samples revealed the presence of total coliform in range of 1.4×10³ MPN/100 ml to 2.0×10³ MPN/100 ml.
- d) **Soil Quality:** Samples collected from identified locations indicate the soil is sandy type and the pH value ranging from 6.87 to 7.59, which shows that the soil is alkaline in nature. Potassium is found to be from 74.61 mg/kg to 82.56 mg/kg. The water holding capacity is found in between 27.65 % to 33.12%.
- e) **Noise Quality:** Noise monitoring reveals that the maximum & minimum noise levels at day time were recorded as 59.85 Leq. dB (A) at NQ1 & 42.61 Leq. dB (A) at NQ5, respectively. The maximum & minimum noise levels at nighttime were found to be 48.66 dB (A) at NQ1& 31.38 dB (A) at NQ5. 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.

13. **Replenishment report:** - The methodology used for Replenishment study is based on the measurement of Reduced Level (RL) at selected points as monitoring stations within the lease area in Pre-monsoon season & Post Monsoon season respectively. For the said project replenishment study has been done during the Pre-Monsoon (April-2022) and post-monsoon season (Nov - 2022) by field survey (volumetric survey) method. It has been observed that there is an average increase in river bed level by 1.15m in post monsoon due to deposition of sand via river flow. Therefore, replenished quantity of sand is 52,296.25 cum (surface area of Block A is 45,475 sqm * 1.15m)
14. **Mining method:** The sand will be excavated by open cast manual method with mechanical carriage. Since the depth of sand deposit is 1.0 m, excavator, handpicks, spade, hand shovel will be used by laborers for extracting & loading of sand. Quarry floor level (RL) at the end of the lease period will be 15 m from the Mean Sea Level (MSL).
15. **Water requirement:** The water requirement for workers for drinking purpose will be around 0.17 KLD & the total water requirement will be around 8.0 KLD. Water requirement for the total cluster is 11KLD (Kulashree Devi sand quarry-3KLD+ Mundilo- Patenigaon Devi nadi sand quarry is 8 KLD).

Activity	Calculation	Round off Figure in KLD
Drinking	@ 10 lpcd per labor $10 \times 17 / 1000 = 0.17$ KLD	0.17
Dust Suppression	Total approach road to be water sprinkled = 218.51 m $218.51 \text{ m} \times 6 \text{ m} \times 0.5 \times 2 \text{ times} / 1000 = 1.31$ KLD Total water required is = 1.31 KLD	1.31
Plantation	2187 plant (during plan period) @ 3 L/per plant = 2187×3 lts = $6561 / 1000 = 6.56$ KLD	6.56
Total		8.04 ~ 8.0 KLD

16. **Traffic study:** The V/C ratio will be modified from 0.033 (SH 60) to 0.050 with LOS being "A" i.e. "Excellent". So, the additional load on the carrying capacity will be affected to a minimum level.
17. **Greenbelt:** About 2187 saplings are proposed to be planted. Plantation will be done along transport route and buffer zone during first year. Plantation will be carried out after consulting local authorities or gram panchayat. Plantation work will be carried out on both side of haul road i.e., 218.51 m. Plantation shall be done with suitable local species like teak, mango, neem, jamun, jhaun etc.per year.

Year	Plantation along the road side		No. of Plants in Schools	No. of Plants in Panchayat	No. of Plants in Aanganwadi	Species
	Area (Ha.)	Number of Plants	Number of Plants	Number of Plants	Number of Plants	Guava, Mango, Jamun, Chakunda Jhau, Neem etc.
1st	0.087	87	1000	600	500	
2nd	Maintenance		Maintenance			
3rd						
4th						
5th						

	0.087	87	2100	
Total	2187			

18. **Manpower requirement:** A total of 17 nos. of manpower are to be employed in the lease area for mining 8000 cum/year of sand. Indirect employment through creation of shops/ stalls, hired vehicles, etc. can be generated to full fill the day-to-day requirements of the mining personnel. Employment Generation from the Mundilo - Patenigaon Devi Nadi Sand Quarry = 17nos and cluster project is 30 nos. of people. (Mundilo - Patenigaon Devi Nadi Sand Quarry = 17nos + Kulashree Devi River Sand Quarry = 13 nos)

19. **Project cost:** The estimated cost of project is around Rs. 60 lakhs. CER cost will be 2.0% of the total amount. Budget for occupational health is 3 lakhs per year. Budget for water, shelter and sanitation for mine worker carries capital cost of 3,00,000 and recurring cost of 75,000 EMP cost includes capital cost of Rs 3,73,330/- and recurring cost of Rs 4,02,000/-

Sr. No.	Measures	Capital Cost (In Rs.)	Recurring Cost (In Rs.)
1.	Pollution Control Dust Suppression /Water Sprinkling	--	1,00,000
2.	Pollution Monitoring i) Air pollution ii) Water pollution iii) Soil Pollution iv) Noise Pollution	--	50,000 40,000 10,000 10,000
3.	Green belt development	2,18,700	1,00,000
4.	Maintenance of haul road	54,630	42,000
5.	Tarpaulin and cover for minerals	1,00,000	50,000
Total		3,73,330	4,02,000

20. **Environment Consultant:** The Environment consultant **M/s P and M Solution, Noida** along with the proponent made a presentation on the proposal before the Committee on 12.04.2024.

21. The SEAC in its meeting held on dated **12-04-2024** decided to take the decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
1.	Details of span of the bridge including length and width and distance of the bridge from the two mining blocks duly certified by the concerned authority. The concerned authority shall also clarify whether the bridge is passing within the lease area or outside the lease area.	Letter from the Executive Engineering, R & B has been Attached for your reference as Annexure – I .
2.	The concerned Tahasildar shall clarify why	Mundilo-Patenigaon Lease has been

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	the lease has been divided into Block – A, B and C.	divided in to 2 Blocks, i.e A & B. As a bridge has proposed in the lease area, we are separated it into 2 Blocks after leaving the safety zone. Block – C has not proposed.
3.	Submit complete and revised replenishment study details including section wise details, geo-coordinates, reduced level etc.	The revised replenishment study report has been attached for your reference as Annexure-II .
4.	Mismatch of Plot no. in DSR and mining plan.	As per revenue record, the plot no. has wrongly changed in the office order to Plot no-791 instead of plot no. 2499 of the same khata no. After the file has moved to Department of Steel & Mines we have been observed that, the plot no, which is mentioned in DSR is not matched with the mining Plan. Accordingly, we have modified the mining plan of the same area 6.42 ha. The modified Mining Plan has been attached for your reference as Annexure-III .
5.	Transportation route from lease area to connecting public road.	The transportation route from lease area to connecting public road has been attached for your reference as Annexure-IV .

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s P and M Solution, Noida** on behalf of the proponent, the SEAC decided to take decision on the proposal after receipt of following information/clarification from the proponent:

- i) Mineable surface area as per modified mining plan is less than the common safe workable area in Replenishment study.
- ii) No benchmark is taken. No details of GCP is available.
- iii) Safety zone left due to bridge is not marked in the Replenishment study maps or shown in calculations.
- iv) The RSR in the ADS is based on pre and post monsoon photogrammetry surveys carried out on 09th June 2024 and 14th November 2024 respectively using drones / UAV. The method of fixing GCPs along with that of fixing site orthometric heights is stated under the para “3.3 Survey procedure”. Two different sets of GCPs (5 nos. in each set) have been used for pre and post monsoon surveys. The GCPs in the pre and post monsoon surveys are not fixed as per para “Ground control point establishment and monumentation” of the standard operating procedure (SOP) for study of rate of replenishment of sand using drone survey prepared by ORSAC for SEIAA, Odisha and submitted vide letter No. ORSAC/PR/0951/21/2588 dated 02nd June 2023.
- v) The stated RMS errors in absolute geolocation variance 28.7 cm for X, 99.6 cm for Y and 61.4 cm for Z in both pre- and post-monsoon surveys. The mean of geolocation accuracy is

mentioned to be 5 m for X, 5 m for Y and 10 m for Z or both the pre and post monsoon surveys. (Refer “Quality report” section of the RSR)

- vi) The revised mining plan is approved on 16th June 2024. As per this document the ML area has gentle slope, almost flat terrain with an average altitude of 16 m above the MSL. 1.5 m depth of sand excavation is approved and accordingly quarry floor level is stated to be 14.5 m RL. The river water level is stated to be 12 m RL.
- vii) Table under para ‘4.3 Calculation of replenished volume’ presents the grid point elevations of the riverbed sand surface in the mineable areas of the ML 0.80 m of sand deposit is stated based on the differences in average elevations of pre and post monsoon survey readings. This reported difference of 0.8 m cannot be considered significant in view of the stated geolocation accuracy of 10 m for Z (azimuth / elevation)
- viii) The pre and post monsoon surveys have not been done as per the SOP for study of rate of replenishment of sand using drone survey prepared by ORSAC for SEIAA, Odisha and submitted vide letter No. ORSAC/PR/0951/21/2588 dated 02nd June 2023. The RSR is not acceptable.

22. The SEAC in its meeting held on dated **04.03.2025** decided to take decision after receipt of the following information and documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	Mineable surface area as per modified mining plan is less than the common safe workable area in Replenishment study.	Rectified in the revised ARSS report.	Not complied
ii)	No benchmark is taken. No details of GCP is available.	Rectified in the revised ARSS report.	Complied
iii)	Safety zone left due to bridge is not marked in the Replenishment study maps or shown in calculations.	Rectified in the revised ARSS report.	Not complied
iv)	The RSR in the ADS is based on pre and post monsoon photogrammetry surveys carried out on 09th June 2024 and 14th November 2024 respectively using drones / UAV. The method of fixing GCPs along with that of fixing site orthometric heights is stated under the para “3.3 Survey procedure”. Two different sets of GCPs (5 nos. in	Rectified in the revised ARSS report.	Not complied

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	each set) have been used for pre and post monsoon surveys. The GCPs in the pre and post monsoon surveys are not fixed as per para “Ground control point establishment and monumentation” of the standard operating procedure (SOP) for study of rate of replenishment of sand using drone survey prepared by ORSAC for SEIAA, Odisha and submitted vide letter No. ORSAC/PR/0951/21/2588 dated 02nd June 2023.		
v)	The stated RMS errors in absolute geolocation variance 28.7 cm for X, 99.6 cm for Y and 61.4 cm for Z in both pre- and post-monsoon surveys. The mean of geolocation accuracy is mentioned to be 5 m for X, 5 m for Y and 10 m for Z or both the pre and post monsoon surveys. (Refer “Quality report” section of the RSR)	Rectified in the revised ARSS report.	Not complied
vi)	The revised mining plan is approved on 16th June 2024. As per this document the ML area has gentle slope, almost flat terrain with an average altitude of 16 m above the MSL. 1.5 m depth of sand excavation is approved and accordingly quarry floor level is stated to be 14.5 m RL. The river water level is stated to be 12 m RL.	Rectified in the revised ARSS report.	Not complied
vii)	Table under para ‘4.3 Calculation of replenished volume’ presents the grid point elevations of the riverbed sand	Rectified in the revised ARSS report.	Not complied

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	surface in the mineable areas of the ML 0.80 m of sand deposit is stated based on the differences in average elevations of pre and post monsoon survey readings. This reported difference of 0.8 m cannot be considered significant in view of the stated geolocation accuracy of 10 m for Z (azimuth / elevation)		
viii)	The pre and post monsoon surveys have not been done as per the SOP for study of rate of replenishment of sand using drone survey prepared by ORSAC for SEIAA, Odisha and submitted vide letter No. ORSAC/PR/0951/21/2588 dated 02 nd June 2023. The RSR is not acceptable.	Rectified in the revised ARSS report for reappraisal of the proposal.	Not complied

The SEAC decided to reject the proposal due to following reasons;

- i) Most of the observations are not complied and old RSR report is again attached, which was reviewed in SEAC meeting 04th March 2025. Also following discrepancies were observed in the RSR:
 - a) Two different sets of GCPs (5 nos. in each set) have been used for pre and post monsoon surveys.
 - b) The measurement of horizontal (Latitude and longitude) and the vertical (Mean Sea level height) of the GCPs have not been transferred from the National Ground Control Grid established by Survey of India, Government of India (Survey of India's National Ground Control Points Library).
 - c) GCPs in the pre and post monsoon surveys are not fixed as per para "Ground control point establishment and monumentation" of the standard operating procedure (SOP) for study of rate of replenishment of sand using drone survey prepared by ORSAC for SEIAA, Odisha and submitted vide letter No. ORSAC/PR/0951/21/2588 dated 02nd June 2023.
 - d) The pre and post monsoon surveys have not been carried out as per the above-mentioned ORSAC SOP.

ITEM NO. 07

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF JAMUNANAKI SAND QUARRY-II MINING PROJECT OVER AN AREA OF 16.10 ACRES OR 6.515 HA (COMING UNDER CLUSTER WITH TOTAL LEASE AREA 13.394 HA) IN VILLAGE – JAMUNANAKI, TAHASIL – PANPOSH, KUARMUNDA, DISTRICT – SUNDARGARH OF SRI SHANKAR PUJHARI - EC

1. This proposal is for Environmental Clearance for Jamunanaki Sand Quarry-II Mining Project over an area of 16.10 Acres or 6.515 Ha (coming under cluster with total lease area 13.394 Ha) in Village – Jamunanaki, Tahasil –Panposh, Kuarmunda, District – Sundargarh of Sri Shankar Pujhari.
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 Form-F (Intimation to successful bidder) has been granted to - Sri Shankar Pujhari, vide letter no – 643 on dated 12.04.2021 for long term basis (5 years), S/o- Hrushikesh Pujhari, At P.O- Jamunanaki, P.S- Biramitrapur, District – Sundergarh, State - Odisha.
4. The Mining Plan of Jamunanaki Sand Bed has been approved by Office of The Deputy Director, Mines, Rourkela Circle, Rourkela vide letter no. 2554/Mines dated 29.10.2020.
5. Mining lease is an identified Sairat source in the DSR Sundergarh page no. 55, Sl. no. 98.
6. It was an existing mine. After completion of previous plan period, it has been freshly auctioned and Sri Shankar Pujhari is successful bidder now.
7. There is one quarry within 500 meters of proposed quarry i.e., Jamunanaki Sand Bed-I located in khata no.75, Plot no.405/2 of lease area 6.879Ha./17.00acres. Since Jamunanaki Sand bed-1 was located near a bridge, the authorities decided to close it. As a result, Jamunanaki Sand Bed-I is no longer in operation, leaving only Jamunanaki Sand Bed II active.
8. **TOR details:** Terms of Reference (ToR) for Jamunanaki Sand Quarry-II, was issued by SEIAA, Odisha vide File No. SIA/OR/MIN/74858/2022 & letter no. 4569/SEIAA on dated 19.05.2022.
9. **Public hearing details:** Public hearing was successfully executed on date 22.06.2023 at Community Centre, Village Jamunanaki, Tehsil- Kuaramunda in the District of Sundargarh.

The total budget allocated for implementation of public hearing issues are –

CER Budget - Rs.1,60,000 (Jamunanaki Sand Quarry-II) and Rs. 1,50,000 (Jamunanaki Sand Quarry-I)

EMP budget for Jamunanaki Sand Quarry-II - Rs.7,60,400 lakhs (capital cost) and Rs. 3,86,000 lakhs (recurring cost). EMP budget for Jamunanaki Sand Quarry-I - Rs.4,55,100 lakhs (capital cost) and Rs. 2,86,000 lakhs (recurring cost).

The main issues raised during public hearing were:

- Development of amusement park for children in the village.
- Low charges to be imposed on local people for use of sand excavated from the quarry.
- Suppression of fugitive dust emission during transportation of sand carrying vehicles.

- Efforts to be taken for protection from dust emission around the periphery of the mining area.
- The lessee should develop thick green belt all along the road and river embankment site.
- During movement of sand carrying vehicle spillage of sand should not take place.
- Road maintenance and local employment.
- Supply of drinking water to villagers and development of village road.

10. Location and connectivity: The mine lease area is on Koel river located in village – Jamunanaki, Tahasil – Panposh, Kuarmunda, and District - Sundergarh, State – Odisha. It is covered in the Survey of India Topo Sheet No – 45G/16 and is bounded by geo coordinates 22°14'29.62"N to 22°14'40.16"N and Longitude – 84°47'37.78"E to 84°47'52.82"E. The kism of land is Nadi. Nearest Town is Panposh at a distance of 0.625 Km in SE direction. Nearest Railway Station is Panposh Railway Station, approx 1.70 km towards SE direction. Nearest National Highway - NH-143 is approx 0.79 km in North direction & SH-10 is approx 1.94 km in WSW direction Nearest Airport – Rourkela Airport is approx 1.95 km towards NE direction. Nearest Forest - Bamni Pahari Reserve Forest, approx. 3.54 km, towards NE, Mudra Reserve Forest, approx., 5.56 km, towards NE, Butukupiri Reserved Forest, approx., 4.65 km, towards South.

11. Proposed Land Use Plan during plan period:

Sl. No.	Type of Land use	Area (Ha)	
		At Present (Existing)	During Plan Period
i)	Area under excavation including roads	--	4.708
ii)	Safety zone from lease area	--	0.620
iii)	Miscellaneous	--	1.187
Total		6.515	6.515

12. Total Reserves and Proposed Production: Geological Reserves: 26914 cum & Mineable Reserves: 23541cum.

YEAR WISE PRODUCTION DETAILS OF JAMUNANAKI SAND QUARRY-II

Year	Surface area of sand (m ²)	Thickness of Sand bed (m)	Recovery factor (100%)	Vol. of Sand to be extracted (m ³)
1st	47081	0.319	1.0	15019
2nd	47081	0.319	1.0	15019
3rd	47081	0.319	1.0	15019
4th	47081	0.319	1.0	15019
5th	47081	0.319	1.0	15019
Total				75095

13. Replenishment study details of Jamunanaki Sand Quarry-II: The lease area has been surveyed for twice i.e. during Pre Monsoon & Post Monsoon by physical survey using total station as per the Enforcement & Monitoring Guidelines for Sand 2020, MoEF. The conventional

survey technical using total station is used to define the topography, contours and offsets of the lease area as UAV/Drone technique not adopted as the lease area falling under Red Zone as per the DGCA guidelines i.e. within 5Km from the nearest airport. After conducting a field survey, we were able to determine the thickness of the sand deposit and its volume inside the lease area using coordinates from the approved Mining Plan. Pre Monsoon survey was conducted on Dt: 07th June 2024 and Post Monsoon on Dt: 23rd Nov 2024. As per the replenishment study:

Reserve reference	Geological Reserve in Cu.M	Mineable Reserve in Cu.M
Approved Mining plan prepared in 2020	26914	23541
Pre-Monsoon Drone Survey 2023 on Dt:07 th June 2024	33779	29551
Post-Monsoon Drone Survey on Dt:23 rd November 2024	26661	23074

Mineable Replenished Volume after Post-monsoon Survey = 23074Cum – 29551Cum = - 6477Cum

14. **Mining method:** The mining will be done by opencast manual method. The depth of mining is 1.00 meters and the total production is 15019 cum / annum.
15. **Transportation** - Transportation of minerals will be done by an approach road of approx.1320 Meters which further connects to NH-143. The mineral extraction will be done for a period of 240 days in a year only in non-monsoon season.
16. **Water requirement:** The total water requirement will be around 9.52 KLD for proposed project. Water requirement for drinking & domestic purpose will be 0.3KLD,for green belt development will be 1.30KLD and for dust suppression will be 7.92KLD.
17. **Power Requirement** – The mining will be done only during the daytime hence there is no requirement of Power. The transportation will be done through dumpers or trucks operating on diesel.
18. **Greenbelt development:** The Proposed Plantation Program is 652 plants for proposed project.

Year	No of plants along both side of approach road	No. of plants in buffer zone consulting local authorities	Location	Species
1 st	500	152	Approach road –500 nos – along both sides of approach road at spacing of 2 m. Village area – 152nos. In village area like school premises, Panchayat bhawan	Guava, mango, Jamun, jhaun, neem etc
2 nd	Maintenance	Maintenance		
3 rd				
4 th				
5 th				
Total	652			

19. **Baseline study details:** Baseline Study has been conducted for Pre - Monsoon Season i.e, from October 2022 to Dec 2022.

- a) **Air quality:** The AAQ analysis was conducted at 8 locations and indicates that the concentration of PM₁₀ varied from 55.54 to 92.44 µg/m³, PM_{2.5} from 23.65 to 50.32 µg/m³, SO₂ from 5.46 to 19.79 µg/m³, NOx from 9.87 to 26.52 µg/m³.
- b) **Surface water quality:** The surface water analysis for all the 4 sampling stations shows that The analysis results indicate that the pH ranges between 7.16 to 7.77. Dissolved Oxygen (DO) was observed in the range of 6.5 to 6.9 mg/l against the minimum requirement of 4 mg/l. BOD values were observed to be in the range of 4.0 – 4.3 mg/l.
- c) **Ground water quality:** The ground water analysis for all the 6 sampling stations shows that pH varies from 7.19 to 7.67 during the study period. Total hardness varies from 234mg/l to 260mg/l during the study period. Total dissolved solids vary from 341 mg/l to 353 mg/l during the study period.
- d) **Noise study:** The Noise analysis was conducted at 7 locations. Noise monitoring reveals that the maximum & minimum noise levels at day time were recorded as 62.57 Leq. dB (A) at NQ7 & 35.24 dB (A) at NQ4, respectively. The maximum & minimum noise levels at night time were found to be 51.45 dB (A) at NQ7 & 30.42 dB (A) at NQ4.
- e) **Soil quality:** All soil samples monitored at 7 locations and indicate pH value ranging from 7.19 to 7.64. Potassium – 52.89 to 61.11 kg/Ha., Phosphorous – 11.74 to 12.45 kg/Ha, Total Organic Carbon % – 1.25 to 1.37, Electrical Conductivity- 270 to 323 (µs/Cm).

20. **Manpower requirement:** The manpower is 30 nos. for proposed project.

21. **Project cost:** The total Project Cost is Rs. 80 Lakhs. (Proposed Project).

EMP BUDGET OF JAMUNANAKI SAND BED-II

Sl. No.	Measures	Capital Cost (In Rs.)	Recurring Cost (In Rs.)
i)	Pollution Control Dust Suppression /Water Sprinkling	1,00,000	50,000
ii)	Pollution Monitoring i) Air pollution ii) Water pollution iii) Soil Pollution iv) Noise Pollution	--	50,000 40,000 20,000 10,000
iii)	Green belt development	1,30,400	50,000
iv)	Maintenance of haul road	3,30,000	66,000
v)	Tarpaulins for covering trucks	1,00,000	50,000
vi)	Construction of amusement of parks	1,00,000	50,000
Total		7,60,400	3,86,000

EMP BUDGET OF JAMUNANAKI SAND BED-I

Sl. No.	Measures	Capital Cost (In Rs.)	Recurring Cost (In Rs.)
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i)	Pollution Control Dust Suppression /Water Sprinkling	1,00,000	50,000
ii)	Pollution Monitoring i) Air pollution ii) Water pollution iii) Soil Pollution iv) Noise Pollution	--	50,000 40,000 20,000 10,000
iii)	Green belt development	1,37,400	50,000
iv)	Maintenance of haul road	2,17,500	66,000
Total		4,55,100	2,86,000

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

23. **The SEAC observed that the Replenishment study Report of Jamunanaki Sand Quarry-II is not properly done. No benchmarks taken and grids are also not as per guidelines. Result obtained show net loss of sand. The report is not acceptable.**

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s P & M Solution Pvt Ltd., Noida** on behalf of the proponent, the SEAC recommended the following:

24. As there is net loss of sand as per RSR and **RSR is not done correctly, the SEIAA, Odisha may decide about the grant of EC for the proposal.**

25. The SEAC in its meeting held on dated **27.05.2025** decided to take decision after receipt of the following information and documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	As there is net loss of sand as per RSR and RSR is not done correctly, the SEIAA, Odisha may decide about the grant of EC for the proposal.	RSR submitted	Not Complied

The SEAC decided to reject the proposal due to following reason;

It is not clear how the PP has produced fresh set of data and calculations with the same survey showing deposition of sand (as was done before where there was net loss of sand). Hence compliance is not satisfactory and fresh RSR is required to consider the case.

ITEM NO. 08

PROPOSAL FOR AMENDMENT ENVIRONMENTAL CLEARANCE OF M/S JINDAL STEEL & POWER LTD. FOR UNDERTAKING MINING OVER 0.938 HA. OF SAFETY ZONE AREA WITHOUT CHANGE IN PRODUCTION CAPACITY OF 3.11 MTPA OF TRB IRON ORE MINES WITHIN THE MINE LEASE AREA OF 207.113 HA. LOCATED AT TANTRA, RAIKELA AND BANDHAL VILLAGES, TAHASIL - BONAI, DISTRICT - SUNDARGARH OF SRI PRAMOD KUMAR PATRA – MOD EC

Proceedings of the SEAC meeting held on 25.08.2025

Environmental Scientist, SEAC

1. This proposal is for amendment of Environmental Clearance of M/s Jindal Steel & Power Ltd. for undertaking mining over 0.938 ha. of safety zone area without change in production capacity of 3.11 MTPA of TRB iron ore mines within the mine lease area of 207.113 ha. located at Tantra, Raikela and Bandhal Villages, Tahasil - Bonai, District - Sundargarh of Sri Pramod Kumar Patra.
2. **Category:** This project falls under Item of schedule Category "B", Project or Activity 1 (a) - "Mining of Mineral as per EIA Notification dated 14th Sept, 2006 and its amendments.
3. **Project details:** Amendment in EC is applied for undertaking mining over 0.938ha. of safety zone area without change in production capacity of 3.11MTPA at TRB Iron Ore Mines of M/s Jindal Steel & Power Limited in the mine lease area of 207.113ha. The lessee is located adjacent to the iron ore mining leases of M/s KORP Resources (P) Ltd., M/s Penguin Trading Agency Ltd. (PTAL) and M/s Grewal Minerals & Metals LLP. (GMM-LLP). JSP and PTA have developed a common mining pit along the common boundary upon obtaining all the statutory clearances. Now, JSP has entered into MoU with M/s KORP and M/s Grewal Minerals and Metals LLP (GMM-LLP) (formerly National Enterprise) to laterally expand the common mining pit to excavate the common boundary with them over 486.86m or 0.365ha with KORP Resources and 763.821m or 0.573ha length with GMM-LLP respectively. Thus, in total it comes to 0.938 ha. of Forest land. Keeping in view the safe and scientific mining and conservation, the blocked iron ore can be excavated by laterally expanding the common pit with them.

Location	Tehsil: Koira, District: Sundargarh, Odisha.
Date of execution of Mining Lease	25.05.1985. (In favour of Sri U.C.Mishra) over an area of 297.848 Ha.
Transfer of Mining Lease	03.01.1990 (In favour of Jindal strips Ltd.) over an area of 297.848 Ha.
Present Lessee Name	Jindal Steel & Power Ltd. (After 06.09.1999)
Supplementary Deed	03.07.2016 over an area of 297.848 Ha. valid up to 24.05.2035 under 8A (6) of MMDR Act.
Amended lease deed	02.05.2018 over an area of 207.113 Ha. Valid up to 24.05.2035
Area Details	Lease area 297.848 Ha. After surrender 90.061 ha (297.848 ha-90.061 Ha=207.787 ha, according to DGPS survey lease area is 207.113 ha instead of 207.787 ha.

4. **Location and connectivity:** - The proposed site is located at Villages - Tantra, Raikela and Bandhal, Sub-District – Koida, District – Sundargarh, State – Odisha. The Geo-coordinates are - Latitudes 21°53'6.391" N - 21°53'24.74" N and longitudes 85°09'58.065" E - 85°11'44.06" E bearing Toposheet No. – F45N1. The Kisam of land is Forest converted for mining purpose. Nearest approach roads are Koida-Barsuan Rd at a distance of 1.04 km SE; nearest SH and NH is Barbil-Rourkela NH-520 which is at distance of 17 Km in ENE direction from ML boundary. Nearest Airport is Veer Surendrasai Airport, Ranchi at 198 km. Nearest water bodies – Samijh Nala at 200 m West from lease boundary. Nearest Reserve Forest – Bonai RF and

Nearest Habitation – Tantra at 480 m West, Raikela at 560m South & Bandhal at 460m North of the Project boundary.

5. Chronology of the lease:

- Mining lease for an area of 736.00 ac. or 297.848 ha at Tantra, Raikela & Bandhal (TRB) was initially granted to Shri Umesh Chandra Mishra on 25.05.1985 with validity of 20 years, i.e. upto 24.05.2005.
 - This Lease was transferred in favour of M/s Jindal Steel & Power Ltd. (JSPL) on 3.1.1990 and the same was valid till 24.5.2005.
 - As per MMDR Act, 2015, JSPL obtained extension of validity of lease up to 24.05.2035.
 - Out of the initial lease area of 297.848 Ha, 90.061 Ha Forest area was surrendered as per the letter No. 8-63/95-FC dated 06.05.1998 of MOEF (Forest Division), leaving an area of 207.787 for the TRB mining lease.
 - After surrender of forest area, u/r 21 (2) of the MCR, 2016 with the DGPS Survey, the area shrunk down to 207.113 Ha for which an amendment Lease deed was executed on 02.05.2008.
 - Amended lease over an area of 207.113 ha executed on 02.05.2018 which is valid upto 24.05.2035.
6. **Previous EC details and proposed project:** The initial EC was granted on 29.09.2005 for production of 2.2 MTPA Iron ore which was subsequently amended on 17.03.2009 for expansion of production capacity to 3.11 MTPA. The said EC was further amended on 25.01.2022 for undertaking mining in 0.218 Ha of Common Boundary Safety Zone area between PTA and TRB Mines.

Production capacity as per existing EC	Production capacity as per proposed project	Remarks
3.11 MTPA	3.11 MTPA	No change in production capacity as the proposal is for undertaking mining in 0.938 ha of safety zone area without change in production capacity.

7. List of Statutory Clearances obtained earlier

S.N.	Particular	Status
a) Statutory Clearances		
i)	Initial EC (Production of 2.2 MTPA Iron Ore) vide Lr. No. J-11015/62/2005. IA. II (M)	29.09.2005
ii)	Expansion TRB Iron Ore Production Capacity from 2.2 MTPA to 3.11 MTPA Vide Letter No. J-11015/1154/2007-IA. II(M)	17.03.2009
iii)	Amendment in EC undertaking mining over 0.218 ha. safety zone area without changes in production capacity of 3.11 MTPA for expansion of TRB Mines vide Letter No. J-11015/1154/2007-IA. II (M)	25.01.2022
b) Forest Clearance		
i)	Stage-II FC vide F. No. 8-63/1995-FC (Vol.II); For	08.08.2006

Proceedings of the SEAC meeting held on 25.08.2025

Environmental Scientist, SEAC

S.N.	Particular	Status
	Diversion of 90.505 ha of Forest land for renewal of mining lease for mining of iron ore.	
ii)	Stage-II FC vide F. No. 8-63/1995-FC; For Diversion of additional forest land of 116.647 ha in addition to already diverted forest area of 90.505 ha within the mining lease area of 207.787 ha.	24.06.2014
iii)	Change in land use pattern over an area of 0.218 ha. from Safety Zone purpose to mining purposes within 206.081 ha of already diverted forest land including safety zone in Tantra, Raikela & Bandhal (TRB) vide Letter No. F. No. 8-63/1995-FC (Vol.II)	04.04.2020
Consent to Establish (CTEs)		
i)	Production of Iron Ore from 2.2 MTPA to 3.11 MTPA (2.76 MTPA from Quarry and 0.35 MTPA from old OB dumps), over mine lease hold area of 297.848 ha at TRB vide Lr. No. 27110/Ind-II-NOC-4903	24.12.2008
ii)	Amendment of existing CTE for TRB Iron Ore Mines of M/s. Jindal Steel & Power Ltd. for Cluster Mining in Safety Zone area of 0.218ha. within lease area of 207.113 ha. without change in total mine lease area and production capacity, on a joint meeting program with the adjacent mines of M/s. Penguin Trading Agencies Ltd. vide No. 19775/IND-II-CTE-6737	27.10.2022
Consent to Operate (CTO)		
iii)	Production of Iron Ore 3.11 MTPA; Vide Lr No. 8337/IND-I-CON-1401, CTO Order No. 451	29.05.2009
iv)	Production of Iron Ore 3.11 MTPA & Iron Ore Crushing Plant 1 x 250TPH; Vide Lr No. 7011/IND-I-CON-1401, CTO Order No. 451	27.04.2011
v)	Production of Iron Ore 3.11 MTPA & Iron Ore Crushing Plant 1 x 250TPH; Vide Lr No. 5586/IND-I-CON-1401, CTO Order No. 451	29.03.2016
vi)	Production of Iron Ore 3.11 MTPA, Mobile screening Plant 2 x 350 TPH & Iron Ore Crushing Plant 1 x 250TPH; Vide Lr No. 10836/IND-I-CON-1401	17.08.2017
vii)	Production of Iron Ore 3.11 MTPA, Mobile screening Plant 2 x 350 TPH & Iron Ore Crushing Plant 1 x 250TPH; Vide Lr No. 13024/IND-I-CON-1401	02.12.2019
viii)	Production of Iron Ore 3.11 MTPA, Mobile screening Plant 2 x 350 TPH & Iron Ore Crushing Plant 1 x 250TPH; Vide Lr No. 3739/IND-I-CON-1401, CTO Order No. 451	21.03.2020
ix)	Production of Iron Ore 3.11 MTPA, Mobile screening Plant 2 x 350 TPH & Iron Ore Crushing Plant 1 x 250TPH vide Lr. No. 20307/IND-I-CON-1401	02.11.2022

8. Chronology of approvals taken:

Sl. No.	Details	Date
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Sl. No.	Details	Date
i)	MoUs between JSP & Korp, JSP & GMM-LLP for lateral expansion of common boundary working.	JSP & Korp – 19.10.2019 JSP & GMM-LLP – 12.12.2024
ii)	Modified Mine plan approved for laterally expanding the common mining pit.	06.12.2024
iii)	Approval of FC for mining over an area of 0.218 ha (for developing common mining pit) under Forest Conservation Act, 1980	04.04.2020
iv)	Environmental Clearance for developing Common mining pit without change in mining capacity of 3.11 MTPA	25.01.2022
v)	Approval of FC for change in land use of 0.938 ha safety zone area for lateral expansion	File with MoEF&CC, Delhi for approval
vi)	EC for lateral expansion of common mining pit without change in mining capacity.	SEAC-07.02.2025

9. **Forest Clearance details:** Forest Clearance has been granted by MoEF&CC for the diversion of entire forest land including safety zone vide letters 08.08.2006 and 24.06.2014. Further the land use of already diverted forest land of 0.218 ha was approved by MoEF&CC vide its letter dated 04.04.2020. However, they have applied for change in land use pattern of 0.938 Ha. from safety zone purpose to mining purpose dated 13.05.2023.

Total Mining Lease area	207.113 Ha.
Forest area	205.697 Ha. (Khasra Forest - 53.191 Ha., DLC Forest Land - 152.506 Ha.) Forest Clearance granted vide letters dated 08.08.2006 & 24.06.2014 Change in land use pattern over an area of 0.218 ha. from Safety Zone purpose to mining purposes vide Letter No. F. No. 8-63/1995-FC (Vol.II) dated 04.04.2020
Non-Forest area	1.416 Ha.
Diverted Forest area	205.697 Ha.(Including Safety Zone)
Eco Sensitivity	No Tiger reserve, National Park etc. within the core and buffer zone

10. Existing and proposed land utilization:

Sl. No	Purpose/Type of Use	Diverted forest land in Ha (Existing Land use)	To be change Forest land in Ha.	Diverted Forest Land in Ha (Proposed Land Use)	Total	
					Total Non-Forest area in Ha.	Grand Total in Ha.
i)	Mining	108.038	+0.938	108.976	-	108.976

Sl. No	Purpose/Type of Use	Diverted forest land in Ha (Existing Land use)	To be change Forest land in Ha.	Diverted Forest Land in Ha (Proposed Land Use)	Total	
					Total Non-Forest area in Ha.	Grand Total in Ha.
ii)	Storing of mineral / ore	10.454	-	-	-	10.454
iii)	Dumping of overburden	29.233	-	-	-	29.233
iv)	Storing of Tools & machineries	7.216	-	-	-	7.216
v)	Construction of Crusher Plant, Worker Shed, Power Station, Workshop, Beneficiation plant etc.	13.090	-	-	-	13.090
vi)	Magazine	0.250	-	-	-	0.250
vii)	Construction of road / railway/ ropeway	5.648	-	-	-	5.648
viii)	Construction of tailing Pond	4.335	-	-	-	4.335
ix)	Storing of Top soil	1.346	-	-	-	1.346
x)	Area for greenbelt Development	15.728	-	-	0.15	15.878
Sub Total		195.338	+0.938	196.276	0.15	196.426
xi)	Safety Zone	10.359	-0.938	9.421	1.266	10.687
Grand Total		205.697	-	205.697	1.416	207.113

11. Summary of Products generated by the project

Units	Products and by products	Existing	Additional	After expansion
Mining	Iron Ore	3.11 MTPA	NIL	3.11 TPA

12. **Method of Mining and mining plan details:** Approval letter of mining plan has been obtained vide Letter No. RMP-2310/2024-25-IBM_RO_BBS; dated 06.12.2024. Method of Mining will be Opencast Mechanized Iron Ore Mine. Ore type is laminated hard, blue dust, soft laminated ore and massive ore. Bench Height & width is 9 m height with 12 m respectively and GW depth is 559m RL (Post Monsoon) & 549 m RL (pre monsoon)

13. Machinery Requirement:

Excavator & Loading Equipment				
S.N.	Type	Make	Capacity (m ³)	No. of Equipment
i)	Back Hoe	Volvo	0.90	2
ii)	Back Hoe	SANY	1.80	1

Excavator & Loading Equipment				
S.N.	Type	Make	Capacity (m³)	No. of Equipment
iii)	Back Hoe	Volvo	2.10	2
iv)	Back Hoe	Komatsu	2.80	1
v)	Back Hoe	Volvo	3.30	2
vi)	Front End Loader	SDLG	2.40	3
vii)	Front End Loader	Komatsu/Hitachi	2.80	2
viii)	Water Tanker	TATA (10000 Ltr)	0.0	3
ix)	Water Tanker	TATA (19000 Ltr)	0.0	1
x)	Water Tanker	Hindustan (28000 Ltr)	0.0	1
xi)	Dumper	Hindustan (35 T)	0.0	2
xii)	Dumper	TATA Prima (31 T)	0.0	18
i)	Dumper	Bharat Benz (25 T)	0.0	24
ii)	Motor Grader	Komatsu (265 HP)	0.0	1
iii)	Crusher	Sandvik (250 TPH)	0.0	1
iv)	Mobile Screen Plant	Extec (350 TPH)	0.0	2
v)	Crane	5 Tonne Capacity	0.0	2
vi)	Crane	10 Tonne Capacity	0.0	1
vii)	Crane	20 Tonne Capacity	0.0	1
viii)	Generator Diesel	1010 KWH	0.0	1
ix)	Generator Diesel	600 KWH	0.0	1
x)	Generator Diesel	200 KWH	0.0	1
xi)	Generator	10 KWH	0.0	1

Excavator & Loading Equipment				
S.N.	Type	Make	Capacity (m ³)	No. of Equipment
	Diesel			
xii)	Generator Diesel	7.5 KWH	0.0	4
xiii)	Explosive Van	TATA (1.01 T Capacity)	0.0	1
xiv)	Air Compressor	2 CuM/MN	0.0	2
xv)	Jeep/Tractor	Mahindra (50 HP)	0.0	1
Dozer & Drilling Details				
xvi)	Dozer	BEML	180	1
xvii)	Dozer	BEML	354	1
xviii)	Dozer	Komatsu	416	1
Transportation & Hauling Equipment				
xix)	Dumper	TATA Prima (31 T)	12.50	18
xx)	Dumper	Bharat Benz (25 T)	10.0	24
xxi)	Water Tanker	TATA (10000 Ltr)	0.0	3
xxii)	Water Tanker	TATA (19000 Ltr)	0.0	1
xxiii)	Water Tanker	Hindustan (28000 Ltr.)	0.0	1

14. **Transportation details:** Transportation will be by road & railway. Overburden generated will be transported to the surface dump or to the backfill dump by dumpers. The ore will be transported to the railway siding by trucks

15. **Details of Drilling and blasting:** DTH hydraulic drill machine with 100 mm hole dia utilized for drilling of blast holes. Controlled blasting by using electric delay detonators or NONEL system of initiation is carried out. Top Soil dump is 1.34 Ha.

16. **Waste Dumps and backfilling plan:**

S No.	Dump ID	Dump Status	Type of Dump	Total Quantity (T)	Area covered by Dump (Ha)
i)	Dump no.1	Active	Waste	54947780.44	29.23
ii)	Partly backfilled	Active	Waste	10933872.48	11.47

	area of Patch-2				
iii)	Partly backfilled area of Patch-3B	Stabilised	Waste	1967002.82	8.47

Sl. No.	Year	Pit ID	Type of Dump	Total of Dump Quantity (t)	Area covered by Dump (ha)	Top RL	Bottom RL
i)	2025-26	Patch - 1	Waste	593890	5.06	810	700
ii)	2025-26	Patch - 2	Waste	1336970	4.62	740	700
iii)	2025-26	Patch – 3A	Waste	100260	2.12	745	740
iv)	2026-27	Patch – 3A	Waste	1346040	7.95	770	705
v)	2027-28	Patch - 1	Waste	515230	0.82	840	810
vi)	2029-30	Patch - 1	Waste	86850	1.85	825	800
iv)	Partly backfilled area of Patch-1	Stabilised	Waste	3897909.00	6.60		

17. **Details of Crushers and screen:** JAW Crusher of 250 TPH Capacity and Mobile Screen of 350 TPH Capacity is proposed.

18. **Water requirement for the project and waste water management:** The water requirement for the project is 854 KLD of Ground water and 241 KLD or 7250 CuM per Month of Surface water.

19. **Details of Crushers and screen:** JAW Crusher of 250 TPH Capacity and Mobile Screen of 350 TPH Capacity is proposed.

20. **Water requirement for the project and waste water management:** The water requirement for the project is 854 KLD of Ground water and 241 KLD or 7250 CuM per Month of Surface water. With respect to the water pollution, only runoff contamination anticipated from this mine. Therefore, the respective mitigation measures taken by JSPL are as follows:

- Construct bonds and contour trenches at the undulated slopes to reduce the flow of runoff water and arrest soil erosion.
- Construction of retention walls and garland drains all along the toe of the dump areas to avoid wash offs and contamination of surface runoff water.
- All garland drains are connected to settling pit to arrest silt and allow clean over flow.
- Garland drains outside the mining areas to divert the external runoffs to channelize to the nearby drainage system without getting any contaminated water from the mine.
- Collection of surface runoff from mine in a mine quarry to store the water for necessary ground water recharge and use the same for dust suppression within the mines.
- Regular monitoring of GW Level using Piezometers to regulate usage as deemed necessary.

21. **Greenbelt details:** There are 606 trees enumerated within the 0.938 Ha of safety zone to be used for mining activities along the common boundary area. Hence, for this appropriate CA Land of 1.5 Ha is being allocated to develop plantation greenbelt in order to compensate the tree losses along the desired safety zone.

As on date the plantation carried out within the lease hold area is:

S.N.	Area Covered (Ha)	Number of Plants	Survival Rate (%)
i)	64.132	371843	76.34%

Proposed Green Belt Details (2025-30)

S.N.	Total Expenditure Incurred up to Last Year (INR)	Area Covered (Ha)	Number of Plants	Survival Rate (%)
i)	1750000	5.0	10000	75

After Mine Closure, the total reclaimed and rehabilitated area with plantation will be 199.61 Ha. out of the total lease area of 207.113 ha.

22. **Details of waste generated and mitigation:** Over Burden from Mining Activity is of 54947780.44 TPA) at earmarked 29.23 ha. area within the lease area.
23. **Baseline study details:** Baseline study was done during October - 2024 to December -2024 w.r.t Time period, Air, Water, Soil, Noise quality monitoring results.

Period	October - 2024 to December -2024
AAQ Parameters at 7 Locations	PM _{2.5} = 14 to 27 µg/m ³ PM ₁₀ = 40 to 76 µg/m ³ SO ₂ = 8.6 to 12.6 µg/m ³ NO _x = 10.4 to 14.1µg/m ³ CO = 0.39 to 0.77 mg/m ³
GROUND WATER QUALITY AT 6 LOCATIONS	pH: 6.5 to 7.9, Total Hardness: 75 to 210 mg/l, TDS: 186 to 362 mg/l, Chlorides: 30 to 49, mg/l., Sulphate: 5.8 to 9.1 mg/l, Nitrate: <1to 5 mg/l; Floride: <0.10 to 0.14 mg/l
SURFACE WATER QUALITY AT 5 LOCATIONS	pH: 6.85 to 7.32, Total, TDS: 168 to 228 mg/l, Chlorides: 39 to 54 mg/l, BOD: 3 to 5 mg/l, DO: 5.4 to 5.6 mg/l, Floride: 0.11 to 0.15 mg/l, Iron: 0.1 to 0.15 mg/l, Sulphate: 6.2 to 7.7 mg/l
NOISE LEVELS AT 4 LOCATIONS	49.5 to 55.8 dBA (leq) for the day time and 39.7 to 44.2 dBA(leq) For the Night time.
SOIL QUALITY AT 2 LOCATIONS	Core Zone: pH=5.2; EC=210 µMho/cm; BD=1.02 gm/cum, CaCO ₃ = 19% by Mass; Moisture =4.6 % by Mass; Organic Matter =6.5 % By Mass; Nitrate 1.9 ppm Buffer Zone: pH=5.9; EC=211 µMho/cm; BD=1.12

	gm/cum, CaCO ₃ = 19.2% by Mass; Moisture =5.2 % by Mass; Organic Matter =1.52 % By Mass; Nitrate 3.4 ppm
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24. **Power Requirement and Solar Power details:** The mine has a 500-kW connection from Local grid. Emergency supply from DG Set of 600 KVA is being maintained for meeting the other requirement like welding, pumping, etc.
25. **RWH details:** For Ground water recharge and RWH purposes 3 nos. of check dams across streams 7 nos. of RWH ponds are maintained and will be continued to be maintained with an expected annual recharge of 61 MCM.
26. **Total Employment:** Total Manpower requirement for the proposed project is 827 nos., out of which Managers is 32 nos., Supervisors is 77 nos., Skilled Workers is 493 nos., Unskilled Workers is 84 nos. & semi-skilled Workers is 141.
27. **Project cost:** The estimated Project cost is Rs. 610.56 Lakhs & EMP Cost is Rs. 110.52 Lakh (CER Cost: Rs. 40.5 Lakhs)
28. **Environment Consultancy:** The proponent along with the consultant **M/S. Ardra Consulting Services Pvt. Ltd., Bhubaneswar** made a detailed presentation before SEAC on 07.02.2025.
29. The SEAC in its meeting held on dated **07.02.2025** decided to take decision after receipt of the following information and documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	Detailed plan regarding the greenbelt for the common boundary of the proposed project.	The company proposes the following plan for undertaking plantation/greenbelt development for the FY-2025-26 to FY 2029-30 TABLE	Detailed greenbelt plan for the FY-2025-26 to FY 2029-30 attached and complied. A total of ₹1,87,50,000 has been allocated for plantation of 75000 nos. of saplings
ii)	Certified compliance report to previous Environmental Clearance conditions.	The Certified compliance report of the previous EC conditions has been obtained from the IRO, MoEF & CC, Bhubaneswar. Copy of the Certified Compliance Report is attached as Annexure I .	Copy of the Certified Compliance Report is attached as Annexure I and complied
iii)	Copy of the application for Forest Clearance.	It is submitted that MoEF & CC vide its letter dated 01.04.2025 has granted In-Principal approval letter (Stage-I FC) for undertaking mining in the part of the safety zone area. Copy of the Stage-I Forest Clearance granted by MoEF &	Copy of the Stage-I Forest Clearance granted by MoEF & CC is attached as Annexure II and complied

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC												
		CC is attached as Annexure II .													
iv)	Permission letter from DG Mine Safety	Permission Letter from DG Mine Safety is attached as Annexure III .	Letter from Director of Mines, Safety, Bhubaneswar reveals that “no working shall be made with a distance of 7.5m of the boundary of any mine except prior permission from this directorate as required under Regulations 111(3) of Metalliferous Mines Regulation, 1961” No permission letter has been submitted by the PP.												
v)	Details regarding the number of trees that will be cut along with designation, business contact details of the concerned officer, who will responsible for payment of the stipulated compensation for the tree cutting and timely execution of the approved plan of afforestation in common boundary areas of mining leases. Copy of the office order / agreements / authorisation by the project proponent for the same needs to be submitted.	<div>There are 606 trees enumerated within the 0.938 Ha of safety zone to be used for mining activities along the common boundary area.</div> <table><tr><th>Girth Class (cm.)</th><th>Total Nos. Trees</th></tr><tr><td><30</td><td>0</td></tr><tr><td>30-59</td><td>507</td></tr><tr><td>60-89</td><td>77</td></tr><tr><td>>90</td><td>22</td></tr><tr><td>Total No. of Trees</td><td>606</td></tr></table> <div>Tree enumeration data are attached as Annexure IV.</div> <div>Details of the concerned officer of the Company is given below:</div> <div>Name: Raghuraj Singh Raghuwanshi Designation: A.V.P (Mines) Email: raghuraj.raghuwanshi@jindalsteel.com Mobile: 9437578362</div> <div>The authorization of the officer is attached herewith as Annexure V.</div>	Girth Class (cm.)	Total Nos. Trees	<30	0	30-59	507	60-89	77	>90	22	Total No. of Trees	606	<div>Tree enumeration data are attached as Annexure IV and complied</div> <div>The authorization of the officer is attached as Annexure V and complied</div>
Girth Class (cm.)	Total Nos. Trees														
<30	0														
30-59	507														
60-89	77														
>90	22														
Total No. of Trees	606														

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

After detailed discussion, the SEAC decided to take decision for the proposal after receipt of the following document from the Project Proponent:

- a) In the submitted letter no. BBR 2/NOC/ Cluster Mining/ 2025/ 249 dtd. 19.02.2025 it is revealed that “no working shall be made with a distance of 7.5m of the boundary of any mine except prior permission from this directorate as required under Regulations 111(3) of Metalliferous Mines Regulation 1996”. Therefore, submit the prior permission from Director of Mines, Safety.

30. The SEAC in its meeting held on dated **28.04.2025** decided to take decision after receipt of the following information and documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
iv)	In the submitted letter no. BBR 2/ NOC/ Cluster Mining/ 2025/ 249 dtd. 19.02.2025 it is revealed that “no working shall be made with a distance of 7.5m of the boundary of any mine except prior permission from this directorate as required under Regulations 111(3) of Metalliferous Mines Regulation 1996”. Therefore, submit the prior permission from Director of Mines, Safety.	Submitted	<p>The unit has submitted a letter from The Director of Mines and Safety, wherein it is mentioned that ;</p> <p>This letter does not confer any right to commence mining operation within 7.5 mts of the common boundary without obtaining all mandatory statutory clearances from the competent authority. Further, no mining operations shall be conducted within 7.5 mts of common boundary unless permission under Regulation 111(3) of the Metalliferous Mines Regulations, 1961 from this directorate is obtained.</p>

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s. Ardra Consulting Services Pvt. Ltd., Bhubaneswar** on behalf of the proponent, the SEAC recommended the following:

- i) The permission letter from Director of Mines and Safety indicates that the said letter does not confer any right to commence mining operation within 7.5 mts of the common boundary without obtaining all mandatory statutory clearances from the competent authority. Further, no mining operations shall be conducted within 7.5 mts of common boundary unless permission under Regulation 111(3) of the Metalliferous Mines Regulations, 1961 from this directorate is obtained. Hence, the unit shall operate the mine in the safety zone of 7.5 mtr of common boundary after obtaining permission from the competent authority. Hence PP shall submit permission for working in safety zone.
- ii) The unit shall obtain revised approved mining plan from the concerned authority to carry out mining activity within 7.5m of common boundary.
- iii) The measures against any adverse impact on safety and environment on either side of the common boundary is also required to be undertaken.

ITEM NO. 09

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S. SATYAAYAN GENESIS PRIVATE LIMITED FOR B+S+5 RESIDENTIAL APARTMENT BUILDING OF SATYAAYAN GENESIS PVT. LTD. HAVING TOTAL PLOT AREA 4898.47 SQM AND TOTAL BUILT UP AREA 20494.16 SQM. OVER REV. PLOT NO - 232, 233, 234 & 236 KHATA NO - 129/373, 129/33, 53 & 129/433, AT MOUZA-TANDILO, TAHASIL-BALIANTA, DIST-KHORDHA OF SRI SATYABRATA BISWAL - EC

1. This proposal is for Environmental Clearance of M/s Satyaayan Genesis Private Limited for B+S+5 Residential Apartment Building of Satyaayan Genesis Pvt. Ltd. having total plot area 4898.47 Sqm and total built up area 20494.16 sqm. over Rev. Plot No - 232, 233, 234 & 236 Khata No - 129/373, 129/33, 53 & 129/433, at Mouza-Tandilo, Tahasil-Baliana, Dist-Khordha of Sri Satyabrata Biswal.
2. **Category:** This project falls under Category "B" or Schedule 8(a): Building & Construction Projects as per EIA Notification dated 14th Sept, 2006 and its amendments.
3. M/s. Satyaayan Genesis Private Limited has proposed ONE towers of Basement + Stilt + 5, Residential apartment building having total built up area 20,494.16 sqm. over plot no. 232, 233, 234 & 236 of Khata No - 129/373, 129/33, 53 & 129/433 at Mouza -Tandilo, Tahasil-Baliana, Dist-Khordha.
4. **Location and connectivity:** - The proposed site is coming under the Khata No. 29/373, 129/33, 53 & 129/433 with Revenue Plot No. 232, 233, 234 & 236 in Mouza - Tandilo, Tahasil - Baliana, Dist - Khordha, Bhubaneswar, Odisha. The Geographical co-ordinates of the project site is: Latitude - 20°14'55.80"N to 20°14'59.80"N & Longitude - 85°53'40.00"E to 85°53'42.73"E. The area is located in Survey of India Topo sheet No. F45T16. The project site is at a distance of 3.48 Km - W from NH-316, 6.36 Km – NW from NH-16, Tankapani Road is at a distance of 0.4KM in south direction. The nearest airport is Biju Pattanaik Airport which is 7.3 km away from the project site towards W direction. Bhubaneswar railway station is 5.66 km away from the project site towards WNW direction. Bani Vihar railway station is 6.42 km away from the project site towards NW direction. Lingaraj Temple road railway station is 8.38 km away from the project site towards WSW direction. Mancheswar Railway Station is 9.53 km away from the project site

towards NW direction. Nearest water bodies are Bhargavi River – 1.05 km – W and Kushabhadra River- 2.67km – NE. Puri Main canal at 0.66km.

5. The total plot area is 4898.47 sqm. / 1.21 Ac. / 0.4898 Ha. with total built-up area 20494.16 sqm. Total Built up Area = 20494.16 sqm. Total Built up Area = 20494.16 sqm.

6. The Building Area Details of the Project in tabulated form:

Particular	Proposed	Permissible
Total Plot Area	4898.47 sqm	--
Ground Coverage	2561.13 sqm (52%)	--
FAR Area	14633.63 sqm	--
Total Built up Area	20494.16 sqm	--
Maximum Height	14.85M (B+S+5)	--
Basement Parking	3260.47 sqm	4390.089 sqm (30 %)
Stilt Parking	2578.38sqm	
Total Parking Area	5838.85 sqm	
Green Belt Area	980 sqm (20 %)	980 sqm (20 %)
Maximum No. of Floor	B+S+5	--
Power Requirement	1000 KW	--
Solar	50 KV	--
No. of DG sets	1 x 380 KVA = 380 KVA	--
Fresh Water requirement	56 KLD	--
Sewage Treatment Plant	STP Capacity- 90 KLD	--
Solid Waste Generation	0.331 Ton/day	--
Total no. of dwelling units	118	--
Estimated Population- Residential, & Floating/visitors	662 Nos.	--

7. **Water requirement and waste water management:** Total Water requirement is 84 m³/day (fresh water + flushing water). Out of which total Fresh Water requirement is 56 m³/day. Total Flushing Water requirement is 29 m³/day.

8. **Source of water:** The daily fresh water requirement will be approximately 56 KLD which will be met through Municipality Supply/ CGWA.

9. **Total Waste water will be generate** is 74KLD which will be treated in STP Capacity: - 90 KLD with MBBR Technology. The wastewater treated in the STP will recover 67 m³/day. Out of which flushing (30.0 m³/day), landscaping (10.0 m³/day) and 27 m³/day will become surplus which will be discharged in dry seasons. During monsoon season and winter season 32 KLD water will be discharge to nearest drain.

10. **Rainwater harvesting Pits:** 20 RWH pits of capacity 192 m³ are proposed to be constructed.

11. **Power requirement:** Total Power requirement of the proposed building is 1000 KVA, Source is TPCODL, 1 nos. of DG sets of (380KVA) is provided. Total 50KVA Solar Power Generation which is 5% of total power demand. 20 % of total hot water requirement (17KLD) will be catered through Solar Thermal system as per the presentation.

12. **Total Solid waste generation and management:** The solid waste generated from project will be mainly domestic in nature and the quantity of the waste will be 0.331 Ton/day. Solid wastes

generated will be segregated into biodegradable 0.141 T/Day (waste vegetables and foods etc.) and non-biodegradable or recyclable 0.190 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 150 kg/day. Recyclable and non-recyclable wastes will be disposed through Govt. approved agency.

Solid waste Generation

S. No.	Category	Kg/capita/day	Waste generated (kg/day)
1	Residents (600)	@ 0.5 kg/day	300
2	Staff (30)	@ 0.25 kg/day	7.5
3	Visitors (60)	@ 0.15 kg/day	9
4.	Landscape waste (0.56 acre)	@ 0.2 kg/acre/day	0.0484
5.	STP sludge	Waste water generated *0.35* B.O.D difference/1000	14.47
	TOTAL SOLID WASTE GENERATED		331.2kg/day

13. **Green belt:** Total green area measures 980 m² i.e. (20.00% of the plot area).No. of trees required = 1 tree/80 sq.m. of plot area =4898.47/80 = 61.23 say 62 Nos.Total no. of trees proposed = 62 Nos.
14. **Parking area:** Parking required = 4390.089 sqm. (30%).Total parking provided= 5838.85 sqm. (39.90%).Stilt parking area = 2578.38 sqm. Basement parking area = 3260.47 sqm.
Total no. of ECS required = 140
No. of parking provided as per NBC= 194 ECS
Required visitor's parking = 4390.089 sqm. X 10% = 439 SQM.Visitor parking area provided= 504.49 sqm.
15. **Traffic Study Report** - As per Traffic Study Report conducted the LOS found to "B" after establishment of project.
16. **Fire fighting details:** Fire fighting measures will be adopted as per the guidelines of NBC.
17. **Project cost:** The estimated Project cost is 49.9 Crores and Cost for EMP is 85.5 Lakhs(capital cost) and recurring EMP budget 5.7lakh as per the following below table.

Source	Capital Cost (In Lacs)	Recurring Cost (In lacs)
Landscaping	5	0.5
Rain Water Harvesting	3	0.2
Solid Waste Management	4.5	0.2
STP	50	1
Acoustic Enclosure & DG Set Stack	10	0.3
Environmental Monitoring	3	3
SOLAR	10	0.5
Total	85.5	5.7

18. Environment Consultancy: The proponent along with the consultant **M/s Visiontek Consultancy Services Pvt. Ltd. (Bhubaneswar)** made a detailed presentation before the SEAC.

Considering the information furnished and the presentation made by the consultant, **M/s Visiontek Consultancy Services Pvt. Ltd. (Bhubaneswar)** along with the project proponent, the SEAC recommended the following:

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

- i) Supporting documents for road connectivity from project site till Puri canal road. NOC/permission from concerned authority for usage of road.
- ii) The layout submitted during presentation was drawing layout of project which was not clearly mentioned the environmental units. Clear master layout showing building area, fire corridor with width of road and distance of the road from the building, rain harvesting pits, greenbelt, ramp getting into basement and vehicles entry exit, internal drainage connected etc.
- iii) Layout of drain for facilitating safe discharge of storm water & excess treated sewage water to the nearest public drain and after that to the natural nallah. NOC/permission of appropriate authority for the same to be submitted.
- iv) NOC/permission from concerned authority for laydown of drain on road side. Supporting documents who will construct the road.
- v) The SEAC observed the treated water discharge to drain is at higher side. Hence, project proponent shall explore ways to reduce the quantity of treated water discharge to drain by increasing the usage of treated water in horticulture/greenbelt, vehicle washing etc. Revise water balance to be submitted.
- vi) Traffic Study to be vetted from Institute of Repute.
- vii) Structural stability certificate from reputed institute.
- viii) Excavated soil shall be used in plantation, if any extra to be shifted to another place, then proper guidelines to be followed during transportation.

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

- i) Environmental settings of the project site.
- ii) Extent of construction activity.
- iii) Road connectivity to the project site.
- iv) Drainage network at the site.
- v) Safety concern to be checked.
- vi) Greenbelt development in the existing plant.
- vii) Solid waste management practice of the existing plant.
- viii) Vacant land available.

ix) Any other issues including local issues.

19. The SEAC in its meeting held on dated **31.01.2025** decided to take decision after receipt of the following information and documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Supporting documents for road connectivity from project site till Puri canal road. NOC/permission from concerned authority for usage of road.	We have obtained a No Objection Certificate from Satyabhamapur Gram Panchayat (Letter No. 45 dated 19.05.2025) for the proposed construction project. The certificate confirms that the Panchayat has no objection to the project over Plot No. 232, 233, 234 & 236, Khata No. 129/373, 129/33, 129/53 & 129/433, Mouza–Tandilo. The Panchayat has verified the site and granted the NOC after due diligence. Copy of NOC is attached as Annexure-1 .	They have submitted a NOC from Sarpanch, Satyabhamapur Gram Panchayat.
2.	The layout submitted during presentation was drawing layout of project which was not clearly mentioned the environmental units. Clear master layout showing building area, fire corridor with width of road and distance of the road from the building, rain harvesting pits, greenbelt, ramp getting into basement and vehicles entry exit, internal drainage connected etc.	We are now submitting a revised and detailed master layout plan as Annexure-2 , which clearly marks the following components: Building Footprint/Plinth Area - with clear demarcation of all blocks/towers. Firefighting Corridor - including the width of roads, and distance between buildings and internal roads, ensuring compliance with NBC norms. Rainwater Harvesting Pits - location and quantity as per the water balance design. Greenbelt Area - with percentage of green cover and landscape zoning. Ramp Access to Basement - with slope and entry/exit direction. Vehicular Entry and Exit - clearly marked for smooth traffic circulation. Internal Road Network and Drainage - including stormwater drainage connected to external	In the layout map the legend of fire corridor was not shown. To be decided by SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>outlets.</p> <p>The revised layout ensures all required environmental and service infrastructure is visibly and accurately depicted for regulatory review.</p>	
3.	<p>Layout of drain for facilitating safe discharge of storm water & excess treated sewage water to the nearest public drain and after that to the natural nallah. NOC/permission of appropriate authority for the same to be submitted.</p>	<p>With reference to the observation raised under point iii, we are pleased to submit the following documents:</p> <p>1. Gram Panchayat NOC: (Attached as Annexure-1)</p> <p>A No Objection Certificate has been obtained from Satyabhamapur Gram Panchayat (Letter No. 45 dated 19.05.2025). The certificate confirms that the Gram Panchayat has no objection to the proposed residential construction project over Plot No. 232, 233, 234 & 236, Khata No. 129/373, 129/33, 129/53 & 129/433, Mouza–Tandilo. The site has been duly verified by the Panchayat before issuance of the NOC.</p> <p>2. Application to RWSS Department: (Attached as Annexure-3)</p> <p>An application has been submitted to the Executive Engineer, Rural Water Supply and Sanitation (RWSS), Khurda, for issuance of a No Objection Certificate (NOC) for discharge of treated wastewater from the proposed B+S+5 residential apartment project. The application includes a proposal for installation of a 90 KLD Sewage Treatment Plant (STP), ensuring that 32 KLD of treated wastewater</p>	<p>1. In the NOC of Sarpanch, nothing is mentioned regarding lay out of drain to facilitate discharge of excess storm water and treated sewage.</p> <p>2. The unit has not obtained any permission for discharge of discharge of storm water & excess treated sewage water to the nearest public drain and after that to the natural nallah. They have applied to Executive Engineer, RWSS, Khurda.</p>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		along with excess stormwater will be discharged as per Pollution Control Board standards and applicable regulatory norms.	
4.	NOC/permission from concerned authority for laydown of drain on road side. Supporting documents who will construct the road.	<p>1. Gram Panchayat NOC for Project and Infrastructure Support: We have obtained a No Objection Certificate (NOC) from Satyabhamapur Gram Panchayat (Letter No. 45 dated 19.05.2025), which confirms that the Gram Panchayat has no objection to the proposed construction project at Plot Nos. 232, 233, 234 & 236, Khata Nos. 129/373, 129/33, 129/53 & 129/433, Mouza–Tandilo. The certificate also refers to inspection and acknowledgment of necessary infrastructure provisions, implicitly including access and drainage requirements.</p> <p>2. Application to RWSS for Treated Wastewater Discharge and Drainage Connectivity: An application has been submitted to the Executive Engineer, RWSS, Khurda, requesting issuance of an NOC for discharge of treated wastewater into the nearest drain. The application details the proposed laydown of drain on the roadside, connected to the local drainage system. It confirms that the treated water (32 KLD during normal days and 27 KLD during monsoon) will be safely discharged, complying with CPCB norms.</p>	In the NOC of Sarpanch, nothing is mentioned regarding lay out of drain to facilitate discharge of excess storm water and treated sewage.
5.	The SEAC observed the treated water discharge to drain is at		Revised water balance as asked by SEAC to reduce

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	higher side. Hence, project proponent shall explore ways to reduce the quantity of treated water discharge to drain by increasing the usage of treated water in horticulture/greenbelt, vehicle washing etc. Revise water balance to be submitted.		wastewater not submitted.
6.	Traffic Study to be vetted from Institute of Repute.	Vetted Traffic Study is attached as Annexure-4 .	Complied
7.	Structural stability certificate from reputed institute.	Structural stability certificate is attached as Annexure-5 .	They have submitted structural certificate from Sri Bibhu Ranjan Giri, Structural Engineer, Registered by The Director, Town Planning. The registration certificate was valid up to 20.01.2025.
8.	Excavated soil shall be used in plantation, if any extra to be shifted to another place, then proper guidelines to be followed during transportation.	<p>Management of Excavated Soil</p> <p>With reference to the observation regarding the use and disposal of excavated soil, we would like to submit the following clarification:</p> <p>The excavated soil generated during the construction phase will be primarily utilized for internal purposes, such as site leveling, landscaping, and plantation development within the project premises.</p> <p>In the event of any excess excavated soil that cannot be reused on-site, it will be safely transported to designated locations in accordance with the guidelines laid down by the local authority and relevant environmental regulations. During transportation, the following</p>	Complied

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>measures will be strictly followed:</p> <ul style="list-style-type: none"> • Covered vehicles will be used to prevent spillage and dust emission. • Transportation will be scheduled during non-peak hours to minimize disturbance. • The route and disposal site will be approved by the local authority. • All necessary precautions will be taken to prevent environmental pollution during handling and transit. <p>We assure you that the entire process will be carried out in compliance with the applicable norms and good environmental practices.</p>	

20. The proposed site was visited by the sub-committee of SEAC on 03.03.2025. Following are the observations of the sub-committee:

1. The layout plan was explained by the PP and team.
2. The site is located at the side of village revenue road with a width of about 30 ft.
3. The plot was vacant and no construction activities were taken up.
4. As observed the land and the adjoining lands are agricultural lands. As told by PP the land has been converted to Gharabari before construction. Land document should be submitted.
5. The site is not flood prone. Since this is a village agricultural land care should be taken in developing land to avoid flood situation.
6. There are no trees on the plot. Green belt should be developed as per CPCB norms.
7. There is a natural Nala at a distance of about 400 mts away from the plot. Permission with approval for constructing drain at the revenue road side till fallout to be obtained from the appropriate authority.
8. NOC/Permission for discharge of treated water and storm water to the natural nala to be obtained from the appropriate authority.
9. The traffic study, structural stability and fire safety certificates from reputed institute should be submitted.
10. Stack height and emission standard are to be maintained as per CPCB guideline.

After detailed discussion the SEAC decided to take decision on the proposal after receipt of above information and documents from the project proponent from the Project Proponent.

- 1) NOC from concerned authority for construction of drain along the road up to the nallah to facilitate discharge of excess storm water and treated sewage.
- 2) Revised water balance as asked by SEAC to reduce wastewater not submitted.
- 3) The PP has submitted structural certificate from Sri Bibhu Ranjan Giri, Structural Engineer, registered by the Director, Town Planning. The registration certificate was valid up to 20.01.2025. Hence, the Structural stability certificate from reputed institute.

ITEM NO. 10

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S SHRI BAJRANG POWER & METALLICS LIMITED FOR PROPOSED INDUSTRIAL BUILDING HAVING TOTAL BUILT UP AREA 1,20,397.81 SQM OVER TOTAL PLOT AREA 100 ACRES FOR ESTABLISHMENT OF 40,000 TPA OF TITANIUM DIOXIDE PIGMENT PLANT, 1,20,000 TPA OF SULPHURIC ACID PLANT, 16,000 NM³/HR OF PRODUCER GAS PLANT, BRICK PLANT OF 40,000 BRICKS/DAY, 4.8 MW OF FBC BASED CO-GENERATION POWER PLANT AT VILLAGE- SAHASPUR, TEHSIL- BOLOGARH, DISTRICT KHORDA OF SRI S.K. GOYAL – EC.

1. This proposal is for obtaining Environmental Clearance for M/s Shri Bajrang Power & Metallica Limited for Proposed Industrial Building having total built up area 1,20,397.81 sqm over total plot area 100 Acres for establishment of 40,000 TPA of Titanium Dioxide Pigment plant, 1,20,000 TPA of Sulphuric Acid plant, 16,000 Nm³/HR of Producer Gas plant, Brick plant of 40,000 Bricks/day, 4.8 MW of FBC based Co-generation Power Plant at Village- Sahaspur, Tehsil- Bologarh, District Khorda of Sri S K Goyal.
1. **Category:** This is a Category – B project which falls under schedule 8(a): Building & Construction Projects as per the EIA Notification 2006 and amendments thereafter.
2. **Location and connectivity:** The land required for the proposed industrial Area is 100 Acres. The proposed Industrial building for M/s Shri Bajrang Power & Metallica Limited Over Khasra No. Khasra No. 98,98/482 & Others at Mouza- Sahaspur , Dist- Khorda bearing Topo sheet No. 73 H/14, 73 L/2, 73 H/13 & 73 L/1. The project site is approximately 5.6 kilometers away to the SH # 57 to the South. Existing road & railway facilities shall be utilized. Only internal roads, paths will be developed for vehicular movements for transportation of construction material during construction phase. So, no new road or rail traffic is required during construction or operation. Kaligiri nadi is 7.5 Kms and Mahanadi River which is 12.0 Km away from the project site

SI No	Khata No	Plot No.	Allotted area (In Acres.)
i)	168	98(P)	2.522
ii)	166	98/533(P)	5.659
iii)		98/482(P)	21.061
		98/483(P)	11.790
iv)		157/485(P)	25.469
v)		155	0.9
vi)		153(P)	13.225
vii)		157(P)	15.994

viii)		216/484(P)	2.08
ix)		216(P)	1.3
TOTAL			100

3. The land is allotted by Odisha Industrial Infrastructure Development Corporation (IDCO), Govt. of Odisha.

4. **Land use details:**

LULC OF PROJECT AREA	AREA IN SQM	Percentage
Total Construction Area	80396.31	19.85
Reservoir	29517	7.3
Parking	9600	2.4
Green Belt	133546.38	33
Open Storage	12290	3
Road	74000	18.3
Drainage	7157	1.75
Open Area	58179.31	14.4
Total Area	404686	100

5. **The Building Area Details of the Project in tabulated form:**

Unit Number	UNIT DESCRIPTION	Construction Area (sq. m)	Built Up Area (sq. m)
Total Construction Area			
1	TiO2 Main Building Area	43146.31	79834.31
2	Sulphuric Acid Plant and Stack	6036.50	6100.00
24	Sulphur Storage (Shed)	2665.50	2665.50
3	Steam Boiler and Co-Generation Power Plant	2950.00	3200.00
4	Gasifier	1081.00	1081.00
5	Closed Storage (For Coal Gas)	1300.00	1300.00
6	Brick Plant	1200.00	1200.00
7	Water Treatment (Including DM)	2921.00	2921.00
8	Effluent Treatment Plant	9500.00	9500.00
9	Sewage treatment Plant	153.00	153.00
10	Gypsum Unit	1277.00	1277.00
11	Admin Building	1144.00	4144.00
12	Temple	120.00	120.00
18	Substation	2102.00	2102.00
19	Switch Yard	4800.00	4800.00
	Total	80396.31	120397.81
	FAR : 1.497		
Roads and Parking			
B	Roads	74000.00	
13	Truck Parking	9200.00	
14	Car Parking	400.00	
C	Green Cover	133546.38	
D	Open Storage	12290.00	
15	Reservoir	29517.00	
16	Pump House	-----	
17	Fire Water System	-----	

6. **Production details:**

S.NO.	UNIT (PRODUCT)	PRODUCTION CAPACITY
i)	Titanium Dioxide	40,000 TPA
ii)	Sulphuric Acid Plant	1,20,000 TPA

iii)	Producer gas plant (producer gas)	16,000 Nm³/Hr
iv)	Brick Manufacturing Unit	40,000 Bricks/ day
v)	Co-generation Power Plant (AFBC based& Waste heat steam of Sulphuric acid based)	1 x 4.8 MW

7. **Water requirement:** Water required for proposed project will be sourced from Mahanadi River (which is at a distance of 12 Kms from the proposed project site). Dedicated pipeline will be laid from the intake points of Mahanadi River to the project site. Permission will be obtained from Water Resources Department, Government of Odisha

Table: Water requirement details

S. No.	Production Unit	Quantity in KLD
i)	Titanium Dioxide Plant including DM water	4790
ii)	Sulphuric Acid plant	720
iii)	Steam Boiler	1370
iv)	Producer gas plant	30
v)	Domestic	90
	Total	7,000

Table: Wastewater generation details

Waste water generation		
Sl. No.	Source	Generation (KLD)
i)	Titanium Dioxide Plant	3280
ii)	DM Plant Regeneration water	840
iii)	Sanitary Wastewater	70
	Total	4190

Treated water recovered and reuse		
Sl. No.	Particular	Quantity (KLD)
i)	Treated Water recovered	3630

8. **Power requirement:** Power required for the proposed project will be 15 MW. Out of which 4.8 MW will be sourced from the Co-Generation Power Plant and the remain 10.5 MW Power will be sourced from the State grid. DG sets capacity (3 X 1000 KVA) = 3000 KVA (certified for Retrofit Emission Control Devices (RECDs) applicable to Diesel Genset Engines (Up to 800 kW). Diesel Consumption will be 0.9liters/KVA /hr on full load basis.

Sl. No.	Unit	Production (TPD)	Production (TPH)	Specific Power Requirement (kwh/ton)	Power Requirement (in MW)
i)	TiO ₂ production	120	5	2520	12.6
ii)	Auxillary Power for Cogeneration power plant				0.48
iii)	Utilities				1.92
	Total Power Requirement				15

9. **Details of Solar Power generation:** Required Solar power System is 5 % of total power consumption which is 0.525 MW OR 525 KW.
10. **Rainwater Harvesting:** Total 9 no of Rainwater harvesting structures are being proposed for artificial rain water recharge within the project premises.
11. **Parking Requirement details:** Parking details are as such; Truck Parking Area is 9200 Sqm @ 45 Sqm per Truck; No. of Truck Provided is 204.44, Say 205 Trucks; Car Parking Area is 400 Sqm @ 20 Sqm per Car and Car Parking Provided is 20Cars. But parking provided 9600 sqm (12% of the of total built-up area towards FAR)
12. **Firefighting Installations:** It is proposed as per FIRE recommendation from concern authority which is yet to be obtained
13. **Green Belt Development:** Total land area is 100 Acres. Greenbelt is @ 33% of total area which will be 33 acres. 2500 plants will be planted per Hectare (1000 nos. per Acre) as per CPCB norms. Total number of plants for 33 acres will be 33,000 nos. Height of Plant shall be 10-12 feet and 3 years old plants need to be planted.

Year	Number plants to be planted
1 st Year (Monsoon)	10,000
2 nd year (Monsoon)	13,000
3 rd year (monsoon)	10,000
TOTAL	33,000

14. **Solid Waste Management:** During Construction Phase, 27 kg/day solid waste (peak) will be generated during construction phase and will be disposed through waste handling agency. During operational Phase, it is as follows

Table: SOLID WASTE MANAGEMENT

Source of solid waste/ by-product	Type/ Nature of Waste	Other Waste type detail	Quantity (Metric Tons / Month)	Quantity Reused	Quantity Sold	Quantity Disposed	Method of collection	Method/Mode of disposal	Place of Disposal

Source of solid waste/ by-product	Type/ Nature of Waste	Other Waste type detail	Quantity (Metric Tons / Month)	Quantity Reused	Quantity Sold	Quantity Disposed	Method of collection	Method/Mode of disposal	Place of Disposal
Titanium Dioxide	Unreacted Sand	--	479	479	-	-	-	Shall be used for making fly ash/ hollow bricks & as construction sand mix.	Shall be used for making fly ash/ hollow bricks & as construction sand mix.
Gasifier	Bed ash	-	1250	Nil	1250		-	Sold as land fill, Briquette making, low quality fuel / Co generation Power Plant	Sold as land fill, Briquette making, low quality fuel / Co generation Power Plant
Boiler	Fly Ash	-	2750	2250	500	-	-	It will be utilized in the proposed Brick Manufacturing Unit. Excess will be sold	It will be utilized in the proposed Brick Manufacturing Unit. Excess will be sold

Table: MANAGEMENT OF CO-PRODUCTS

Source of solid waste/ by-product	Type/ Nature of Waste	Other Waste type detail	Quantity (Metric Tonnes/Month)	Quantity Reused	Quantity Sold	Quantity Disposed	Method of collection	Method/Mode of disposal	Place of Disposal
Titanium Dioxide (Co Products)	Ferrous Sulphate Heptahydrate	--	10000	Nil	10000		-	will be used in effluent treatment, dosed in Cement, cattle feed	will be used in effluent treatment, dosed in Cement, cattle feed
Titanium Dioxide	Ferrous Sulphate Monohydrate	--	1166	Nil	1166		-	will be used in effluent treatment	will be used in effluent
Titanium Dioxide (By Product)	Gypsum	--	7500	Nil	7500		-	Will be used in cement plants, soil supplement, gypsum board manufacture, flyash brick making, and	Will be used in cement plants, soil supplement, gypsum board manufacture, flyash brick

								disposal in Secured Land Fill (SLF)	making, and disposal in Secured Land Fill (SLF)
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15. **Project Cost:** The estimated project cost is 1275.47 Cr. Capital environmental management plan budget during operation phase is 75 Cr. Annual recurring environmental management plan budget during operation phase is 5.64 Cr.

Sl. No.	Particulars	Capital Cost (Rs. In Crores)	Recurring Cost /Annum (Rs.in Crores)
i)	Air emission Management, CAAQMS &CEMS	17.0	2.50
ii)	Waste water Management	50.0	2.50
iii)	Solid waste Management	3.5	0.50
iv)	Rain water Harvesting & Garland Drains	1.5	0.05
v)	Green belt development	1.5	0.04
vi)	Others	1.5	0.05
	TOTAL	75.0	5.64

16. **Environment Consultant:** The Environment consultant **M/s. Visiontek Consultancy Services, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee on **27.05.2025**.

17. The Committee observed the following:

- The process of production of this unit is not coming under schedule of EIA Notification, 2006 and amendment thereafter. However, the total built-up area of industrial shed is more than 20,000 m² for which they have applied for EC under category 8 (a) (i.e. Building & Construction Projects) of schedule of EIA Notification 2006 and amendments thereafter.
- Government of India in the erstwhile Ministry of Environment and Forests vide its notification number S.O.60(E) dated the 27th January, 1994 imposed certain restrictions and prohibitions and requiring prior environmental clearance for undertaking any new project in any part of India or the expansion or modernisation of any existing industry or project covered in the notification;
- The Supreme Court of India in its order dated the 12th December 2003 in WP (C) No. 725 of 1994 and WP (C) No. 4677 of 1985 in the matter of news item published in Hindustan Times titled "And Quiet Flows the Maily Yamuna" Vs Central Pollution Control Board and Others observed that building construction causes damage to the environment and, therefore, such construction projects may be considered to be brought within the purview of the said notification of 1994, hence, the said notification was amended vide number S.O 801(E), dated the 7th July, 2004 bringing within its purview certain categories of building and construction projects and requiring prior environmental clearance;

- d) Subsequently, the Central Government superseded the said notification, vide number S.O. 1533 (E), dated the 14th September, 2006 (hereinafter referred to as the EIA Notification), inter alia, imposing certain restrictions and prohibitions on building and construction projects and township and area development projects covered under item 8 (a) and (b) of the Schedule thereof and required prior environment clearance for undertaking any such activities;
- e) The Central Government under sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, subsequently published a draft notification on the 11th September, 2014, inviting suggestions and objections of all concerned to the amendment in the Schedule of the EIA Notification in respect of items 8 (a) and (b) and the entries relating thereto and after considering and incorporating all the suggestions and objections received in respect of the draft notification, made the final notification vide number S.O.3252(E) dated the 22nd December, 2014;
- f) The Ministry of Environment, Forest and Climate Change vide Notification S.O. 3252 (E) dated 22/12/ 2014, amended the item 8 (a) of schedule to the EIA Notification 2006 to state that industrial shed, school, college, hostel for educational institution with total built-up area $\geq 20,000$ sq.m to < 1.5 lakhs sq.m shall be exempted from requirement of Environmental Clearance (EC) but shall ensure sustainable environmental management, solid and liquid waste management, rainwater harvesting and may use recycled materials such as fly ash bricks.
- g) The High Court of Kerala, Ernakulam, vide its order dated the 6th March 2024, in the matter of WP (C) No. 3097 of 2016 titled One Earth One Life vs. the Ministry of Environment, Forest and Climate Change and Anr., quashed and set aside the notification dated the 22nd December, 2014 on the ground that the final notification was different from the draft notification while granting liberty to the Ministry to issue a fresh notification, in accordance with the law.
- h) In the light of judgement of Kerala High Court, the National Green Tribunal, vide order dated the 9th August, 2024, in Original Application No. 93 of 2024, inter alia, directed the Ministry of Environment, Forest and Climate Change to either comply with the provisions related to the applicability of General Conditions in respect of items 8 (a) and (b) of the Schedule to the EIA notification or to issue a clarificatory notification in this regard;
- i) In view of the judgment of the Kerala High Court and the order of the National Green Tribunal, there is an urgent need to issue a fresh notification clarifying the issues for adhering to the judgement of the Supreme Court dated the 12th December, 2003 regarding applicability of prior environmental clearance for various building construction projects;
- j) A draft notification for making amendments in the said notification was published in the Gazette of India, Extraordinary, Part-II, Section 3, Sub-section (ii), vide number S.O. 4844(E), dated the 7th November, 2024, inviting objections and suggestions from all the persons likely to be affected thereby, within a period of sixty days from the date on which copies of the Gazette containing the said draft notification were made available to the Public; copies of the said notification were made available to the public on the 7th November, 2024;

- k) The objections and suggestions received in response to the said notification within the period of sixty days have been duly considered by the Central Government;
- l) Based on the liberty granted by the Hon'ble High Court of Kerala, Ernakulam, vide its order dated 06/03/2024, in the matter of WP (C) No. 3097 of 2016 titled One Earth One Life vs. the Ministry of Environment, Forest and Climate Change and Anr., the Ministry, after following due process, issued a Notification S.O. 523(E), dated 29/01/2025 for amending the item 8 of the schedule of EIA Notification 2006. In continuation, an Office Memorandum dated 30/01/2025 was also issued to clarify the applicability of the notification dated 29/01/2025.
- m) The Ministry of Environment, Forest and Climate Change vide Notification S.O. 523(E), dated 29/01/2025, amended the item 8 (a) of schedule to the EIA Notification 2006 to state that industrial shed, school, college, hostel for educational institution with total built-up area $\geq 20,000$ sq.m to < 1.5 lakhs sq.m shall be exempted from requirement of Environmental Clearance (EC) but shall ensure sustainable environmental management, solid and liquid waste management, rainwater harvesting and may use recycled materials such as fly ash bricks.
- n) However, the Hon'ble Supreme Court vide order dated 24/02/2025 in W.P.(C) No. 166/2025 titled Vanashakti vs Union of India, imposed a stay on the operation and implementation of the above mentioned Notification dated 29/01/2025 and OM dated 30/01/2025. The copy of the order was circulated by the MoEF&CC, Govt. of India vide OM No. F. No. IA3-3/16/2025-IA.III [E 259511], dated 15.04.2025 for necessary action and compliance.
- o) Since, there is a stay imposed by the Hon'ble Supreme Court of India by amending item 8 of schedule of EIA Notification, 2006 and amendment thereafter [i.e. exemption from requirement of Environmental Clearance (EC) for industrial shed, school, college, hostel for educational institution with total built-up area $\geq 20,000$ sq.m to < 1.5 lakhs sq.m], industrial shed with built-up area $\geq 20,000$ sq.m may require to obtain EC as building and construction project.

18. The SEAC in its meeting held on dated **27.05.2025** decided to take decision after receipt of certain information and documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	Project Proponent shall ensure existing trees should not be cut or damaged without prior permission from the concerned forest department.	M/s Shri Bajrang Power & Metalics Limited (SBPML) hereby undertakes that no existing trees within the allocated 100 acres of land at Sahaspur shall be cut, damaged, or otherwise disturbed without obtaining prior permission from the competent authority of the concerned Forest Department. All activities within the project site shall	An Undertaking is attached at Annexure I.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		be carried out in strict compliance with applicable forest and environmental regulations. Undertaking confirming the same is enclosed herewith as Annexure I .	
ii)	Details of manpower envisaged for each unit and parking space for them.	enclosed as Annexure-11 for reference. With regard to parking facilities, a centralized parking system for all the units has been provided near the admin building and a separate transportation parking has been provided near the main gate of the plant. This arrangement is made to restrict vehicular and manpower movement inside the plant premises, thereby minimizing the risk of accidents and reducing traffic congestion within the operational areas.	Manpower Envisaged for Each Unit is attached at Annexure II . Adequacy of parking space.
iii)	Detailed background calculation on parking area along with total number of vehicles with respect to staff members and visitors, movement of vehicles for raw material and products.	A detailed calculation of the parking area is provided in Annexure-III . This includes: Number of staff and visitors, Vehicle movement details for raw materials and products.	Parking Area Calculation as per Manpower Deployment is attached at Annexure III
iv)	Details of neutralization pit and ETP details.	Design and operational details of the neutralization pit and Effluent Treatment Plant (ETP) are enclosed in Annexure-IV .	Details of Neutralization Pit and ETP is attached at Annexure IV
v)	IDCO documents for provision of water availability from Mahanadi River through pipeline. Water requirement to be provided in detail.	Relevant documents regarding water supply arrangement through the Mahanadi River pipeline are enclosed as Annexure V(a) Detailed requirement are included in Annexure-V(b)	Complied
vi)	Project Proponent shall provide closed storage space for the	Undertaking regarding closed storage space/tank for sulphuric acid	Complied. The PP has

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	sulphuric acid.	is attached as Annexure-VI	submitted an Undertaking in this regard.
vii)	Hazardous waste management plan for Sulphur Muck, Spent Catalysts, Acid mix etc. and detailed EMP for the same.	Hazardous waste including Sulphur Muck, Spent Catalysts, and Acid Mix will be handled as per CPCB norms. A detailed EMP for hazardous waste management is enclosed as Annexure-VII .	Hazardous waste management plan for Sulphur Muck, Spent Catalysts & Acid mix is attached at Annexure VII
viii)	Detailed Environmental Management Plan for Air and Water Pollution Control measures.	A comprehensive Environmental Management Plan (EMP) covering Air and Water Pollution Control Measures has been attached as Annexure-VIII .	Complied

19. The Committee observed the following:

- i) The proposal is being assessed for the building meant for 40,000 TPA titanium dioxide pigment plant, 1,20,000 TPA Sulphuric Acid plant, 16,000 NM³ / HR producer gas plant, brick plant of 40,000 bricks / day, 4.8 MW of FBC based co-generation power plant.
- ii) The above-mentioned project is a red category industry. Hence, this may classify under 3(a) Metallurgical Industries (Ferrous & Non-Ferrous) and/or (c) Secondary metallurgical processing industry all toxic and heavy metal producing units $\geq 20,000$ tonnes / annum of the schedule of EIA notification 2006 and amendment thereafter as it involves hydrometallurgical process plant including the ancillary units.

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

The proponent has to clarify with justification as to why the project will not classify under 3(a) Metallurgical Industries (Ferrous & Non-Ferrous) and/or (c) Secondary metallurgical processing industry all toxic and heavy metal producing units $\geq 20,000$ tonnes / annum of the schedule of EIA notification 2006 and amendment thereafter as it involves hydrometallurgical process plant including the ancillary units.

20. The SEAC in its meeting held on dated **17.07.2025** decided to take decision after receipt of certain information and documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	The proponent has to clarify with justification as to why the project	1. Justification for Not Classifying Under	The project proponent has described the process for

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	will not classify under 3(a) Metallurgical Industries (Ferrous & Non-Ferrous) and/or (c) Secondary metallurgical processing industry all toxic and heavy metal producing units $\geq 20,000$ tonnes / annum of the schedule of EIA notification 2006 and amendment thereafter as it involves hydrometallurgical process plant including the ancillary units.	<p>Metallurgical Industry (3(a))</p> <p>Our process is a chemical reaction process. In simple terms, we use a chemical like sulphuric acid to react with ilmenite sand to get titanium dioxide. Making Titanium Dioxide (TiO_2), chemical process based on acid digestion, precipitation, and dehydration. Titanium Dioxide (TiO_2), which is a white powder used in paints, plastic, paper, and cosmetics. It is NOT a metal, and it is safe and non-toxic.</p> <p>The core chemical reactions are as follows:</p> <p>- $\text{FeTiO}_3 + \text{H}_2\text{SO}_4 \rightarrow \text{TiOSO}_4 + \text{FeSO}_4$ [Ilmenite + Sulphuric Acid \rightarrow Titanium Oxysulphate + Ferrous Sulphate]</p> <p>- $\text{TiOSO}_4 + \text{H}_2\text{O} \rightarrow \text{TiO}(\text{OH})_2$ [Titanium Oxysulphate + Water \rightarrow Hydrated Titanium]</p> <p>- $\text{TiO}(\text{OH})_2 \rightarrow \text{TiO}_2 + \text{H}_2\text{O}$ [Hydrated Titanium \rightarrow Titanium Dioxide (our final product) + Water]</p> <p>So, there is no extraction of metal from ore using leaching or electrolysis, which is what hydrometallurgical processing means. The plant uses acid and water-based</p>	<p>production of titanium dioxide pigment by reaction of the ilmenite ore with sulfuric acid. The process is hydrometallurgical operation classified under the metallurgical industry. This is a beneficiation process of the titanium dioxide contents in the ilmenite ore by leaching out its impurities using mineral acid such as sulfuric acid.</p> <p>OM dated 08th June 2022 issued by the MoEF & CC (ADS document) is for manufacture of sulfuric acid and phosphoric acid does not apply to leaching of ilmenite in sulfuric acid to produce titanium dioxide pigment.</p> <p>Annexure 2, Annexure 3 and Annexure 4 of the ADS document pertain to CTE for TiO_2 pigment plant by Kilburn, CTO for TiO_2 pigment plant by Kilburn and CTO for TiO_2 pigment plant by V. V. Minerals. The above-mentioned TiO_2 pigment plant by Kilburn is in GIDC, Bharuch, Gujarat and that of V.V Minerals is in Thoothukkudi, Tamil</p>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>processes to clean and convert ilmenite into Titanium Dioxide. It does not melt or extract metals. The process is more like chemical cleaning and conversion, not metal making or refining.</p> <p>The plant does not handle or produce harmful heavy metals like lead, mercury, cadmium, or chromium. The only by-product is Ferrous Sulphate, which is non-toxic and used in farming and water treatment.</p> <p>The process involves steps that are used for removing impurities and precipitate Titanium Dioxide.</p> <ul style="list-style-type: none"> • There is no recovery of Titanium metal from its oxide or any metallurgical transformation (like smelting, alloying, refining). • TiO_2 is an end-use compound, not a precursor to metallic titanium or any metallurgical intermediate. • No ferrous or non-ferrous metals are produced or refined — hence, not a metallurgical industry. <p>2. Justification for Not Classifying Under Metallurgical Industry 3(c)</p> <p>Clause 3(c) – Secondary Metallurgical Processing refers to:</p> <p>Unit not involving toxic or heavy metal production or processing</p>	<p>Nadu. These documents do not mention references to any statutory waiver documents such as OM / notifications / Office order etc. issued by MoEF&CC for establishment of TiO_2 pigment manufacturing units by sulfuric acid leaching of ilmenite without prior EC.</p> <p>In view of above the project may be considered for classification under 3(a) Metallurgical Industries (Ferrous & Non-Ferrous) and/or (c) Secondary metallurgical processing industry all toxic and heavy metal producing units $\geq 20,000$ tonnes / annum of the schedule of EIA notification 2006 and amendment thereafter.</p>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>≥20,000 TPA, using pyro/hydrometallurgical methods (e.g., copper, lead, cadmium, arsenic, chromium, mercury, etc.). The only by-product is Ferrous Sulphate which is non-toxic and used in agriculture and water treatment. We are producing Titanium Dioxide – a white pigment used in paints and plastics – not Titanium metal. Since we are not producing a metal, our unit does not fall under the category of Metallurgical Industry 3(c).</p> <p>3. Producer gas We use producer gas only for heating purposes during the production process. Producer gas units for internal use are not covered under the EIA Notification 2006 and amendments thereof.</p> <p>4. Co-Gen power plants Our captive co-generation power plant is less than 5 MW capacity. According to the EIA Notification 2006 and its amendments, such small power units (with capacity < 5 MW) do not require Environmental Clearance (EC).</p> <p>5. Flyash bricks Fly ash brick manufacturing units are exempt from EC requirements as per the EIA Notification 2006 and later updates.</p> <p>6. Sulphuric Acid The Sulphuric Acid we produce</p>	

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>is for use within our own plant and not for sale or commercial distribution. As per MoEFCC clarification in document F.No.22-28/2020-IA.III [E 141622] dated 8th June 2022 attached as Annexure-1, internal use of Sulphuric Acid does not attract the requirement of EC under the EIA Notification.</p> <p>Reference Cases:</p> <p>We would like to bring to your kind attention that similar projects have been granted Consent to Establish (CTE) and Consent to Operate (CTO) under the Red Category without being considered under EIA Category 3(a) or 3(c). Examples include:</p> <ol style="list-style-type: none"> 1. M/s. KILBURN CHEMICALS LTD, CTE-Attached as Annexure-2 2. M/s. KILBURN CHEMICALS LTD, CTO-Attached as Annexure-3 3. M/s. V.V. TITANIUM PIGMENTS PRIVATE LIMITED vide CONSENT ORDER NO. 2308148940752 DATED: 13/04/2023. CTE-Attached as Annexure-4 	

After detailed discussion the SEAC decided to return the proposal with a request to apply fresh under 3(a) Metallurgical Industries (Ferrous & Non-Ferrous) and/or (c) Secondary metallurgical processing industry all toxic and heavy metal producing units $\geq 20,000$ tonnes / annum of the schedule of EIA notification 2006 and amendment thereafter.

ITEM NO. 11

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S RAIKELA IRON ORE MINES OF SHIV DUTT SHARMA OVER AN MINING LEASE AREA OF 14.933HA. (DGPS AREA 14.564HA./ROR AREA 14.513HA.) LOCATED IN VILLAGE - RAIKELA, UNDER BONAI SUB DIVISION, SUNDERGARH DISTRICT, ODISHA, OF SRI SHAKTI RANJAN DASH (AUTHORIZED REPRESENTATIVE) - TOR

1. The proposal was considered by the committee to determine the “Terms of Reference (ToR)” for undertaking detailed EIA study for the purpose of obtaining Environmental Clearance in accordance with the provisions of EIA Notification, 2006 and amendment thereafter.
2. This proposal is for Terms of Reference for Environmental Clearance of Raikela Iron Ore Mines of Shiv Dutt Sharma over an Mining lease area of 14.933Ha. (DGPS area 14.564Ha./ RoR area 14.513Ha.) located in village - Raikela, under Bonai sub division, Sundergarh District, Odisha of Sri Shakti Ranjan Dash.
3. **Category:** As per EIA Notification, 14th September 2006 followed by subsequent amendments, the proposed project falls under Category B1 – schedule 1 (a) – Mining of Minerals.
4. The mining lease of Raikela Iron Ore of Shri Shiv Dutt Sharma is over an extent area of 14.513 Ha. (forest area is 7.00 ha. and non-forest area is 7.513 ha.) located at village Raikela, Tahasil Koira, under Bonai sub-division of Sundargarh district is granted and executed on 21st January 1982 for a period of 30 years. As per Section 8A (3) of the MMDR Act 2015, the lease is deemed to have been extended up to 20th January 2032.
5. **The mine was under operation from 2000-01 to 2009-10. Further, the Mining Operation was stopped by the Lessee since 12.12.2011 on receipt of the direction from DDM, Koira vide letter dated 26.11.2011.**
6. The State Govt. of Odisha declared the lease as lapsed vide proceeding No. 1136 dated 31.03.2015.
7. As per the direction of Hon’ble Supreme Court of India, Govt. of Odisha, the mine has been saved under 20 (6) of MC Rules, 2016 vide proceeding dated 02.05.2022.
8. **Further, the mine has produced excess of Iron (as accessed by CEC) beyond permitted quantity and without obtaining prior environmental clearance during the year 2000-01 to 2010-11.**
9. Therefore, in pursuance of the Supreme Court order dated 02.08.2017 in WP(C) no. 114/2014, Director of Mines, Govt. of Odisha vide its letter dated 17.05.2022 raised the demand of Rs 6,65,23,573/- for excess production of Iron Ore beyond permitted quantity and without obtaining environmental clearance during the year 2000-01 to 2010-11.
10. Accordingly, the project proponent deposited the demand amount on dated 23.08.2022 and 20.10.2022. As such Lessee has cleared all the due in pursuance of the Supreme Court order dated 02.08.2017 in WP(C) no. 114/2014.
11. **List of Statutory Clearances obtained earlier –**

a) Approved Mining Plan vide no. RMP 2268/2023-24IBM_RO_BBS dated 28.05.2024 valid up to 31.03.2029.

b) The lease area comprises 14.513 ha. out of which 7.00 Ha. is of forest land and 7.513 ha. is non-forest land. Lessee has applied diversion proposal vide proposal no. FP/OR/MIN/QRY/505523/2024 on dated 23.11.2024 which is under process at Authority.

12. **Location and connectivity:** The proposed project is situated at Village Raikela, Tahasil - Koira, Dist. – Sundargarh, Odisha. The site falls under Toposheet No. – 73 G/1 and Seismic Zone-II (Least Active). The geographical co-ordinates are Latitude - 21°52'33.199"N - 21°52'55.32"N & Longitude - 85°11'14.01"E - 85°11'31.00"E. The nearest road connectivity is NH-520, Panikoili to Rajamunda – 7.0 Km – NE, Koira- Barsuan Road - 0.5 Km – S. Nearest Airport - Biju Patnaik International Airport, Bhubaneswar –185 Km– S. Nearest water body: Urahuri Nalla – 2.5 Km, Nearest Habitation: Raikela village – 0.1 Km – E, Nearest Reserve Forest: Sarkanda R.F. – 1.3 Km – S. There is no WLS /National Park / Biosphere Reserve / Elephant Corridor / Tiger Reserve / Eco-Sensitive area within 10 km radius area of the proposed site.

13. **Total Reserves and Proposed Production** – The Mineable Reserve: Iron Ore-486753 MT. Proposed Production Capacity- 0.380MTPAT.

14. **Life of Mines** – At present 6 years, further it will be increase after detail exploration.

15. **Summary of products generated:**

Products	Existing	Additional	After Expansion
Iron Ores	Nil	0.380 MTPA	0.380 MTPA

16. **Mining Plan Details:**

a) **Method of Mining:** Open cast method of mining will continue on 8 hourly single shift basis with the deployment of machines like 105mm DTH drill, 2.5m³ capacity excavators, 30t capacity dumpers etc. Height and width of the benches will be kept at 6m and 8m respectively, vertical (80°) & horizontal (40°). Transportation will be by trucks & dumpers.

b) **Mining process:** Mining operation is proposed to be in single shift (8 hours). Firstly, the weathered zone will be scraped from the top. Then, drilling will be carried out by using Rock breaker. Excavation & separation is done in two phases. One phase is removal of Quartzite along with gangue from the quarry face. The second phase is splitting-sizing-sorting to make it marketable. Crowbars, Pickaxe, Sladge hammer etc. will be used for breaking of the ore. Handling and loading of different sized blocks to stock yard will be done by hydraulic excavator. Transportation of marketable Iron ore will be done by Dumpers/trucks to the respective destinations. Mineral rejects will be transported to the waste dump.

c) **Details of crushers /screen/beneficiation plant if any with capacity and numbers:** Crusher-Jaw Crusher-150 TPH, Mobile screening plant- 200 TPH.

d) **Land use as per mining plan at the end of plan period and at conceptual stage:**

Sl. No.	Type of Land use	Existing Period (in Ha)	Additional Area to be utilized (in ha)	Conceptual Period (in Ha)
1	Mining	2.72	5.198	7.918

2	Mineral Storage	0.20	1.02	1.22
3	Roads	0.40	0.2	0.60
4	Infrastructure (Workshop, Administration, building etc.)	0.20	0.2	0.40
5	OB/ Waste Dump	0.78	0.85	1.63
6	Green Belt	1.455	0	1.455
7	Undisturbed Area	8.758	7.468	1.29
	Total	14.513		14.513

e) Year- wise Production Details

Year	Iron Ore (t)
2024-25	0.00
2025-26	10080.00
2026-27	20020.00
2027-28	40040.00
2028-29	380170.00
Total	450310.00

17. **Water requirement:** Total water requirement will be 25 KLD from Borewell.
18. **Power requirement:** Total power requirement is 5 KWh. Power will be sourced from State grid. However, a 500 KVA DG set will be there for any emergency.
19. **Details of waste generated-** During the plan period of 5 years from 2024-25 to 2028-29, 450310T iron will be produced with the generation of 321650T waste materials. Therefore, the Ore to OB ratio is anticipated to be 1:0.357 (m³/ton).
20. **Mitigation of waste produced-** There are 1 no proposed waste dump over an area of 1.63 Ha. Waste will be stored at the designated places as per the approved Mining Plan. In plan period waste will be utilized for road maintenance. Further, in conceptual period it will be used for back filling.
21. **Greenbelt:** A total of 1.455ha will be covered under greenbelt.
22. **Manpower requirement:** About 104 manpower will be required.
23. **Project cost:** The estimated capital cost of the project is around ₹ 39.387 Crores.
24. **Environment Consultant:** The Environment consultant **M/s EHS 360 LABS Pvt. Ltd, Chennai** along with the proponent made a presentation on the proposal before the Committee.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s EHS 360 LABS Pvt. Ltd, Chennai**, the SEAC decided to take decision on the proposal after receipt of following:

- i) Status of forest clearance for the proposed project.
- ii) Details of the waste disposal method followed.
- iii) Traffic study vetted by Institute of repute.

Proceedings of the SEAC meeting held on 25.08.2025

Environmental Scientist, SEAC

- iv) Details of the greenbelt area covered under the proposed project.
- v) Surface runoff management along with rainwater harvesting and ground water recharge including the design of drainage structures by domain experts from a reputed institute.
- vi) Details of the safety measures undertaken from the surrounding mines.
- vii) Note on the plan for Overburden Dump management.
- viii) Details of installation of Air & Water Pollution Control measures to be followed in the proposed project.
- ix) Slope stability study for both mine benches and OB /waste dumps by domain experts from a reputed institute
- x) Suggested measures against fly rock and ground vibration based on scientific study.

25. The SEAC in its meeting held on dated **07.03.2025** decided to take decision after receipt of certain information and documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	Status of forest clearance for the proposed project.	<p>Total mining lease area 14.513 hectares, out of which 7.00 hectares is forest land and the rest 7.153 hectares is non-forest land. The total forest area 7.00 hectares comprises of 6.409 hectares of revenue forest and 0.591 hectares DLC forest land. The Proposal submitted through online in Parivesh-2 portal vide Single window no-SW/216784/2024 and Proposal no-FP/OR/MIN/QRY/505523/2024 Dtd 23.11.2024. The User Agency requests the State Govt. in Forest & Environment Dept. for diversion forest land for non-forest use over an area of 7.00 hectares under FC Act, 1980.</p> <p>The User Agency has already paid Rs.54,29,010/- (Rupees Fifty-four lakh twenty-nine thousand and ten only) towards</p>	Complied

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>NPV.</p> <p>The Compensatory Afforestation land has been identified and allotted over 7.5Ha of non-forest Govt. land in village Kundheidiha under Gurundia Tahasil of Sundargarh district of Odisha.</p> <p>Compensatory Afforestation Scheme has prepared by DFO Bonai Forest Division and the financial outlay of CA Scheme has been approved by Addl PCCF for Rs 1.09,28,700/-.</p> <p>Now the Proposal has recommended by Forest, Environment & Climate Change Department, Govt of Odisha vide letter No. FE-DIV-FLD-0029-2025-11516/FE&CC Dt 20.05.2025 and forwarded to MoEF & CC, Govt of India, New Delhi for Stage-I approval.</p>	
ii)	Details of the waste disposal method followed.	<p>Total 160825m³ of Waste shall be generated during the plan period. The waste shall be dumped in the proposed dump earmarked in the non-mineralized area in the central part of the lease area.</p> <p>The waste generation are generally soft, mainly laterite and morum which will be used as road material. Waste generated from the quarry faces and in course of mining will be heaped 20m away from the face which will be subsequently removed by trucks/tippers to waste dumping yard.</p> <p>In the M.L. area there are two</p>	Complied

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>existing dumps namely Dump-1 & Dump-2, two dumps are situated in the non-mineral zone. Total 160825m³ of Waste generated during the plan period shall be dumped over the existing dump Dump-2 as earmarked in the central side of the lease area, covering an area of about 0.78 ha. The materials shall be transported to the dumping site by dumpers and tippers of 30t capacity. The dump shall be covering a height about 20 meters in total over an area of 1.63hects in the first five years. The same dump shall be used for ultimate/conceptual period covering 1.63hects and total 160959m³ waste shall be generated during conceptual period.</p> <p>The ultimate height of dump will be up to 20mt. The final dump slope shall be kept it for 260 from the ground level. Each terrace would have inward slope with catch drains at the inward side of terrace. The catch drains of the individual terrace would be connected to the garland drain outside the periphery of the dump. These catch drains shall preferably have half concrete open pipes followed by settling tanks to avoid wash offs. Each terrace have a provision of berms at the outer end to reduce gully formation due to rain water wash offs. The space left between different phases will be covered by top</p>	

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		soil for growing plants in these areas. Moreover, dump slopes will also be utilized for plantation in order to prevent erosion to the dumps by the surface run-off (rain) water.	
iii)	Traffic study vetted by Institute of repute.	Traffic study conducted and vetted by Central Institute of Mining and Fuel Research (CIMFR), Dhanbad. The same is attached as Annexure-1 .	Complied
iv)	Details of the greenbelt area covered under the proposed project.	<p>Safety zone 7.5m along the Lease Boundary having 1.32 Ha and also Safety zone 10m along both side of Public Road having 0.135Ha with total 1.455Ha kept as green belt in the Lease area.</p> <p>In the Conceptual period the Mined-Out area, Area under Dumps, Area undisturbed/virgin, Area under utility services etc. of 12.97Ha has been proposed for reclaimed with plantation.</p>	Complied
v)	Surface runoff management along with rainwater harvesting and ground water recharge including the design of drainage structures by domain experts from a reputed institute.	Surface runoff management along with rainwater harvesting and ground water recharge including the design of drainage structures has been prepared by the Empanelled Hydrologist of CGWA. The report is attached as Annexure-2 .	Complied
vi)	Details of the safety measures undertaken from the surrounding mines.	<p>Mining will be carried out by Open Cast method of mining will continue on 8 hourly single shift basis.</p> <p>7.5m wide strip along inner side of M.L boundary will be left as safety zone.</p> <p>Haul road will be maintained (a) in the M.L area to suit the load</p>	Complied

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>capacity of the truck/dumper and (b) with good condition. Width of the haul road will be kept more than 2 times of the width of truck / dumper. Gradient will be maintained up to a maximum of 1:16 for haul road and 1:10 for ramp. Haul road above the level of surrounding area will be provided with parapet wall / embankment. Warning notices and road signs will be posted along the haul roads at appropriate places like crossings, curves etc. for guidance of truck driver. Haul road will be properly maintained by way of adequate compaction and leveling. Water sprinkling will be done on the haul road for dust suppression for road safety as well as clean environment.</p> <p>Benches will be formed and worked in a top downward manner. Height and width of the benches will be kept at 6m and 8m respectively. The individual bench faces will be kept nearly vertical (85°) whereas the overall quarry slope angle (the angle between the line joining the toe of bottom bench and the crest of the top bench with the horizontal) is proposed to be maintained at around 40° with the horizontal. Safety barriers shall be made along the outer side of each bench. To avoid risk factors, high wall side of the working face will be fenced. There will be no overhang or</p>	

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		<p>undercut in benches.</p> <p>Latest technology shall be adopted for mining and allied activities. The method of mining will be as open cast mechanized Sensor based HEMM and advanced drilling and controlled blasting method shall be used.</p> <p>Portable steel blasting shelters (one end open type) shall be provided at the mine site for giving protection to the blasters during blasting. These blasting shelters are shifted time to time in accordance with the shifting of blast hole locations.</p> <p>Ear plugs, spectacles, helmets safety shoes, globes, pads etc. will be provided to the workers to save their ear, eye, head and other parts of the body while working. Rest shed will be provided to take rest in launch period. Vocational training Centre shall be built up for conducting training classes and exhibition of models. Vocational training will be provided to the workers by trained executive to work safety in the mine. Adequate infrastructure will be provided to the workers for day-to-day smooth management of the proposed mine.</p> <p>First-aid as well as medical facilities will be made available in the mine to take health care of the workers. Medical examination of workers shall be carried out periodically, records shall be maintained properly and treatment shall be done</p>	

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		<p>accordingly by the specialized Doctors. Ambulance will be provided to carry the patients to the nearby hospitals. Occupational health surveillance program of the workers shall be undertaken periodically to observe any contractions due to exposure of dust and take corrective measures accordingly.</p> <p>Lessee will need the help of nearest state fire department located at Koira for rescue, if any high-risk accident occurs in the area.</p>	
vii)	Note on the plan for Overburden Dump management.	<p>During the plan period 450310t iron ore will be produced with the generation of 160825m3 waste materials.</p> <p>The following measures shall be implemented for Dump Management:</p> <ul style="list-style-type: none"> ➤ stabilization of OB dumps by way of grading/benching as prescribed in the approved mining plan. ➤ To ensure that angle of repose at any place is less than 280. ➤ The prescription in the mining plan for terracing and benching are to be adhered to. ➤ In the approved mining plan period 160825m3waste will be generated. During the plan period waste will be generated in form of ferruginous laterite & limonite (both as 	Complied

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>overburden & intercalated waste). Therefore, waste management should be concerned with dumping of laterite & limonite.</p> <p>Retaining wall and garland drain would be provided around the proposed dumps. Precautionary measures to be adopted during waste disposal are as follows: -</p> <p>I. The ultimate dump slope to be maintained around 260 with individual terraces slope not exceeding 370</p> <p>II. Individual terrace height will be maintained at 10 m</p> <p>III. Each terrace will have inward slope with catch drains at the inwards side of the terrace.</p> <p>IV. The catch drains of the individual terrace will be connected to the garland drain outside the periphery of the dump.</p> <p>V. These catch drains will have half concrete open pipes followed by settling tanks to avoid wash offs.</p>	
viii)	Details of installation of Air & Water Pollution Control measures to be followed in the proposed project.	Details of installation of Air & water pollution control measures is attached as Annexure-3	Complied
ix)	Slope stability study for both mine benches and OB /waste dumps by domain experts from a reputed institute	Slope stability study for both mine benches and OB/waste dumps prepared by Central Institute of Mining and Fuel Research (CIMFR), Dhanbad. The same is attached as Annexure-4	Complied
x)	Suggested measures against fly rock and ground vibration based on scientific study.	Blasting & vibration study conducted by Central Institute of Mining and Fuel Research	Complied

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		(CIMFR), Dhanbad. The same is attached as Annexure-5 . Suggested Measures will be adopted during mining operation	

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s EHS 360 LABS Pvt. Ltd, Chennai**, the SEAC prescribed the following specific ToRs in addition to standard ToRs as per **Annexure – E** for conducting detailed EIA study.

- i) Details mineralogical & chemical analysis of waste & OB rejects to be submitted.
- ii) Copy of Environmental Clearance for the prior exploration by drilling holes.
- iii) Layout showing the details of waste dump yard, garland drain, settling pond, terrain of water flow etc. along with their dimensions.
- iv) Permission copy from Department of Water Resources, for the usage of ground water.
- v) The project proponent shall explore the possibility of minimizing the tree felling and its further transplantation for their survival. At the time of EC presentation, brief note regarding this to be stated.
- vi) Details of parking plaza.
- vii) Traffic study report vetted by institute of repute.
- viii) Progressive plan for post mining period.
- ix) Note on Surface runoff management and measures taken to augment the water resources in the area.
- x) Any forest land required outside the lease area for use of transportation route, if so, detailed status of diversion of such forest land is to be submitted.
- xi) Details of existing mines and their operational status within 10 kms radius is to be submitted.
- xii) The following information to be submitted.
 - a) Compliance of mining plan, including waste and OB dump management, mine closure plan etc.
 - b) Compliance to Common cause judgment
 - c) Status of R&R
 - d) Compliance of plantation
 - e) Compliance of public hearing issues
 - f) Status of complaints/ court cases/legal action
 - g) The following studies be undertaken by domain experts, viz:

- Blast vibration study if feasible with trial blasts
 - Socio economic study of the neighbouring habitation
 - Biodiversity study (with special emphasis on RET and endemic species) with audit mechanism.
 - Slope stability study for both mines and OB /waste dumps.
 - Surface runoff management along with rainwater harvesting and ground water recharge include the design of drainage structures.
 - Traffic density study, both inside the mines and at haulage roads, intersecting points of haulage road with public road.
 - Hydrology study: The study findings and the mitigation measures thereof to be submitted
- xiii) RL of ground water during summer and rainy season along with RL of the ground post mining as per the approved mining plan to be reported.
- xiv) Report the contents of chromium, manganese, and other heavy metal elements such as vanadium, mercury etc. in the ground water samples of the study area.
- xv) Cost of the CER calculated shall be utilized for the concerns of the people in terms of health, education, and infrastructure and environment protection. Project Proponent also shall include the budget for the betterment of schools nearby and to facilitate the online education system by providing Wi-Fi connectivity and desktops/tablets.
- xvi) The project proponent should provide in the EIA Report details of all the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after grant of EC.
- xvii) The project proponent should submit the revenue plan for mining lease, revenue plan should be imposed on the satellite imaginary clearly demarcate the Govt. land, private land, agricultural land etc.
- xviii) The project proponent should submit the real-time aerial footage & video of the mining lease area and of the transportation route. The project proponent should submit the detailed plan in tabular format (year-wise for life of mine) for afforestation and green belt development in and around the mining lease. The project proponent should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this the project proponent should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Presently in India there are many agencies which are developing forest in short interval of time. Thus, for the plantation activities details of the experts/agencies to be engaged needs to be provided with budgetary provisions.

- xix) The project proponent should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle needs to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. PP should submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.
- xx) The project proponent should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this the project proponent should mention the number and designation of person to be engaged for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.
- xxi) The project proponent should submit the year-wise, activity wise and time bound budget earmarked for EMP, occupational health surveillance & Corporate Environmental Responsibility. The capital and recurring expenditure to be incurred needs to be submitted.
- xxii) The project proponent should submit the measures/technology to be adopted for prevention of illegal mining and pilferage of mineral. The project proponent should submit the detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.
- xxiii) The project proponent should clearly show the transport route of the mineral and protection and mitigative measure to be adopted while transportation of the mineral. The impact from the center line of the road on either side should be clearly brought out supported with the line source modelling and isopleth. Further, frequency of testing of Poly Aromatic Hydrocarbon needs to be submitted along with budget. Based on the above study the compensation to be paid in the event of damage to the crop and land on the either side of the road needs to be mentioned. The project proponent should provide the source of equations used and complete calculations for computing the emission rate from the various sources.
- xxiv) The project proponent should clearly bring out that what is the specific diesel consumption and steps to be taken for reduction of the same. Year-wise target for reduction in the specific diesel consumption needs to be submitted.
- xxv) The project proponent should bring out the awareness campaign to be carried out on various environmental issues, practical training facility to be provided to the environmental engineer/diploma holders, mining engineer/diploma holders, geologists, and other trades related to mining operations. Target for the same needs to be submitted.
- xxvi) The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC conditions. After perusal of Standard EC conditions if agreed the project proponent should also submit an undertaking by the way of affidavit for Compliance of Standard EC conditions already prescribed by the Ministry vide O.M. No and Specific condition if prescribed by the SEAC/SEIAA, Odisha.

- xxvii) The project proponent should ensure that only NABET accredited consultant shall be engaged for the preparation of EIA/EMP Reports. The project proponent shall ensure that accreditation of consultant shall be valid during the collection of baseline data, preparation of EIA/EMP report and during the appraisal process. The project proponent and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the SEIAA, Odisha are factually correct and the project proponent and consultant are fully accountable for the same.
- xxviii) The project proponent should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this the project proponent should submit the original test reports and certificates of the labs which will analyze the samples.
- xxix) The percentage of iron in the final waste generated and not used as iron ore or its upgradation.
- xxx) Compliance to NEERI recommendations.
- xxxi) "Zero discharge" management & "Zero Dust Re-suppression" management with SOP be submitted.
- xxxii) Internal roads, drain management with network of the drain, retaining walls and settling tanks with ETPs be submitted.
- xxxiii) Details of air quality monitoring stations of the area and additional stations at entry and exit of mines and haulage roads, habitation to be considered.
- xxxiv) Construction and perennial maintenance of haulage road with details of plantation and the species thereof to be submitted.
- xxxv) Parking plaza layout with maximum no. of vehicles and types of vehicles that can be parked with basic amenities and facilities.
- xxxvi) Forest Clearance details with copy of all Forest Clearance.
- xxxvii) Status of complaints/ court cases/legal action regarding to lease along with a detailed write up indicating case no., purpose of the case etc.
- xxxviii) Copy of lease document.
- xxxix) Details of waste management i.e. composition and nature of waste generated, tabulated form showing year wise waste generation, usage and storage.
- xl) Project Proponent shall consider developing a good nursery in nearby village for production of saplings of 4-6 feet height for planting in safety zone, sides of external haulage roads and distribution among villagers for planting in their private land/ community land. The nursery may be developed by company on their own or in collaboration with forest department. A detailed proposal to this effect shall be submitted. The proponent shall ensure to use organic fertilizer in the nursery.

- xli) Comprehensive water management, water balance with water harvesting and its reuse both monsoon and non-monsoon period.
- xlvi) STP plan with design with location in the layout map for domestic waste water treatment.
- xlvi) Provision of solar power (percentage wise) with detail plan.
- xlii) To submit the network with dimension of concrete cement roads inside the mining lease area and haulage road.
- xliii) To submit parking plaza at entry and exit of the mines with basic amenities.
- xliii) Plan and SoP to be submitted for water sprinkling inside the mines and outside in haulage road including regular vacuum cleaning and Zero Dust Resuspension system to completely mitigate and arrest fugitive dust emission.
- xliii) Wagon drill blasting must be avoided- to confirm.
- xliii) Details of grade of Fe to be mined, cutoff grade, management of off grade, quantity of each year wise and the dumping or storage plan of off grade and wastes to be provided.
- xlix) Total water management including domestic use w.r.t sourcing from borewell, rain water harvesting and recycling of waste water from ETP/STP, both for monsoon and non-monsoon be submitted.
 - i) Measures to be taken for arresting and mitigation of occupational health hazard including identification of the same, both for employees and nearby/surrounding habitation.
 - ii) Year wise waste/OB management with reference to generation and utilization in consideration with dynamic movement of inventory indicating dump area and dimension of storage be submitted.
 - iii) Details of grades to be produced, to be discarded as waste and dumps and the utilisation plan.
 - iv) Details of Trees falling.
 - v) The road to which the approach road of 3.5 kms as stated to be connected?
 - vi) Permission/ NOC from CGWA as a contingency measure in case of intersection with ground water and the corresponding Disaster Management plan.
 - vii) Details of plan and calculation of consumption of solar power including for water sprinkling vis - a - vis the generation and as percentage of total power demand.
 - viii) Site specific wild Life management plan including protection and conservation of Endangered, Threatened and Near Threatened living species along with their categories be identified and submitted with due approval of Chief Wildlife Warden.
 - ix) Rain water Harvesting Pond (s) details with design.

- x) Provision of suitable size of sump be planned in the second review of Mining Plan period prior to backfilling of Mined out area. The sump will be beneficial for the storage of water for use of Mines and recharge of groundwater Aquifer.
- xi) The proposed land is a forest land. The lease area is covered with 35,000 trees. The PP need to submit concrete plan for how many trees can be transplanted in safety zone and how many trees shall be cut.
- xii) Detail water management plan in the EIA/EMP study as there is provision for transportation of final product in slurry form.
- xiii) Ore/heavy metal analysis correlated with the elemental content of the baseline study to be submitted.

MEMBER SECRETARY, SEAC