

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL  
COMMITTEE, ODISHA HELD ON 27<sup>TH</sup> MARCH, 2023**

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The SEAC met on 27<sup>th</sup> March, 2023 at 03:00 PM by both physical and Virtual mode (VC) through video conferencing in Google Meet under the Chairmanship of Sri Sashi Paul. The following members were present in the meeting.

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|------------------------------|---|-----------------------|
| 1. Sri Sashi Paul            | - | Chairman (through VC) |
| 2. Dr. K. Murugesan          | - | Member Secretary      |
| 3. Dr. Rabi Narayan Patra    | - | Member (through VC)   |
| 4. Dr. Chittaranjan Panda    | - | Member                |
| 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                |
| 9. Dr. K.C.S Panigrahi       | - | Member (through VC)   |
| 10. Shri Jayant Kumar Das    | - | Member (through VC)   |

**CONSIDERATION OF OLD PROPOSALS (COMPLIANCE RECEIVED):**

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

**ITEM NO. 01**

**PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR MARJITAPUR SAND QUARRY OVER AN AREA OF 12.50 ACRE OR 5.058 HA. IS LOCATED IN VILLAGE - MARJITAPUR, TAHASIL - DHARMASALA IN JAJPUR DISTRICT OF SRI JAYANTA KUMAR JENA - EC**

1. This proposal is for environmental clearance of Marjitapur Sand Quarry over an area of 12.50 Acre or 5.058 Ha. is located in village - Marjitapur, Tahasil - Dharmasala in Jajpur District of Sri Jayanta Kumar Jena.
2. **Category:** As per EIA notification 2006 and subsequent amendments, this project is coming under Category B1 schedule 1(a) - Mining of minerals.
3. The Terms of Reference (TOR) has been issued by SEIAA, Odisha vide Letter No. 4978/SEIAA on dated 29.07.2022.
4. The Tahasildar of Dharmasala Tahasil issued Form F vide letter no. 574 on dated 13-02-2022 to Successful Bidder Sri Jayanta Kumar Jena to operate the sairat source for the period of five years.
5. The Reference of Identified Source in DSR - Page No. 33 of Sl. 81 of Annexure II (DSR Jajpur Dist.).
6. There is no other sand mines exists within 500m radius of the present lease area.
7. The mining plan has been approved by Authorised Officer/Deputy Director of Geology, Directorate of Geology, Bhu-Bigyan Bhawan, Bhubaneswar, Odisha vide memo no. 2577/DG on dated 25.04.2022.

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8. **Public Hearing details:** The Public Hearing in respect of Environment Impact Assessment for Marjitapur Sand Quarry was conducted on 26.10.2022 at 11.00 A.M at Kalyana Mandap Marjitpur village in Jajpur District. The issues raised at the public hearing meeting are tree plantation along river bank, over exploitation of sand, erosion of the river bank and eventual flooding, road widening and repair, road safety and traffic, local employment, dust emission and sand pile up on the road due to transportation. In compliance to public hearing, the project proponent had submitted a time bound action plan and budget allocated is 4.55 Lakhs.
9. **Location and connectivity:** Marjitapur Sand Quarry on river Brahmani spreads over an area of 5.058 Ha. or 12.50 Acre on Khata No. 640, plot no – 1(p) at Marjitapur village, Dharmasala Tahasil of Jajpur District, Odisha. The project is located in survey of India toposheet no. F45U1 & geo coordinates are latitudes: 20°52'37.77"N to 20°52'45.21"N and longitudes: 86°02'58.22"E to 86°03'07.77"E. Nearest village road is at distance of 0.75m from the lease area. The site is well connected to NH-53 at 4Km and SH 20 at 13.85Km and kalinganagar road at 2.9km. E Co Railway line at 0.33km from the lease area. Nearest railway station is Jenapur Railway Station at 3.3 Km from the lease area. Road bridge at 4km and railway bridge at 0.33km. Nearest airport is Biju Patnaik International Airport, Bhubaneswar at 73Km from the mining lease area. Nearest sanctuary is Kapilash Wildlife sanctuary at 22km. Electric transmission line at 0.75km. The study area within 10 Km of the project site is devoid of any national parks, sanctuaries, Biosphere reserves, wild life corridors, tiger/elephant reserves etc.
10. **Topography:** The land is the government land leased for excavation of river sand. There will be no change in land use pattern after the end of plan period as the land will remain as the part of Bramhani river bed and the quarry area will be replenished during the rainy season. The Marjitapur sand bed deposit represents a gently sloping to almost flat terrain with highest altitude of 19 mRL. The general slope is towards Northwest. There is no human settlement within the area.
11. The rail bridge is located at a distance of 330m from the lease boundary. As per sand guidelines 2020, the safety distance of mining lease area should be minimum 250m in the up stream and 500m in the down stream of the bridge/ public civil structure. In this regard, as the rail bridge is located at a distance of 330m from the lease area in the down stream, the Project proponent has suggested to carryout mining operation in the lease area leaving another 170m from P3& P4 boundary pillar.
12. Replenishment Study Report - This is a new mines and the mining plan has been prepared based on the existing depth of sand reserve in the lease area. A proper replenishment study as per Sand guideline, 2020 has not been carried out. A survey for the sand quarry was conducted by volumetric survey method during month of May'2022 for pre-monsoon and during month of November'2022 as post-monsoon season. The reserve has been calculated based on volumetric method. While calculating the level of mine lease 100m up stream and 100m downstream level has been taken into consideration for finding initial level. The estimations were done with digging 4 numbers of trenches of 5m x 5m x 1m at the proposed zones of mining during pre monsoon season (as if the mining has happened for the last season) to see depth is filled up with sand after monsoon season, which was measured during last week of November. So it can be concluded the replenishment in the lease area is 100% with 1m of sand deposit.

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The Project Proponent has assured to carry out proper replenishment study as per guideline during the 1st year of mining operation.

13. **Reserves:** The total geological reserve is 36065 Cum and the mineable reserve of the river bed sand is worked out to be 18974 Cum.
14. **Mining method and production:** The mining operation at Marjitapur Sand bed has been started earlier and as a result of which pits have been developed. The mode of the deposits, geomorphology of the area and its hydrological condition are some of the factors that favour the open cast manual method of mining. In this deposit, the mining is done by manual dry-pit mining method. The sands are extracted, loaded and transferred from pits to the users through trucks. The mining is done on single shift basis. The local man power has been engaged in the mine to supervise loading of vehicles. As per the approved mine plan the proposed targeted production of Marjitapur Sand Quarry was 18974 Cum per annum and total production is 94870cum.
15. **Water requirement:** Water requirement for the project will be 3.5 KLD. For drinking & domestic purpose, water requirement will be 1.5 KLD, water requirement for Green belt development 1 KLD and dust suppression will be 1 KLD. Ground water will be used for drinking and domestic purpose whereas surface water will be used for green belt development and dust suppression.
16. Baseline study was conducted during the period November 2021 to January 2022. Following observations were found w.r.t to air quality, water quality and soil quality monitoring.

PERIOD	November 2021 to January 2022	Applicable Standards
AAQ PARAMETERS AT 5 LOCATIONS	PM <sub>2.5</sub> –22.6 to 36.7 µg/cu.m	60 µg/cu.m
	PM <sub>10</sub> – 41.1 to 66.7 µg/cu.m	100 µg/cu.m
	SO <sub>2</sub> – 5.1 to 9.8 µg/cu.m	80 µg/cu.m
	Nox – 9.1 to 19.1 µg/cu.m	80 µg/cu.m
Ground water Quality at 4 Locations	pH – 6.5 to 6.9	6.5 to 8.5
	Total Hardness – 104 to 180 mg/l	600 mg/l
	Chloride - 14 to 66 mg/l	250 mg/l
	Fluorides – <0.05 to 0.05 mg/l	1.5 mg/l
	TDS – 140 to 300 mg/l	1000 mg/l
	Heavy metals: BDL (Cd <0.001, As <0.01, Hg<0.0001) mg/l Detection limits of analysis method	Heavy metals: (Cd <0.003, As <0.01, Hg<0.001) mg/l
Surface water at 2 locations	pH – 7.8 to 7.9	
	Dissolved Oxygen – 4.5 to 4.9 mg/l	
	Biochemical Oxygen Demand – 2.5 to 2.8 mg/l	

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PERIOD	November 2021 to January 2022	Applicable Standards
	Chemical Oxygen demand – 18 to 22 mg/l	
Noise at 5 locations	Day (dBA Leq) 32.4 to 52.4	55
	Night (dBA Leq) - 25.7 to 48.6	45
Soil Quality at 4 locations	pH –4.8 to 6.05, Potassium –109 to 172 mg/ kg, Phosphorous –192 to 505 mg/ kg, Total Organic Carbon % –0.72 to 1.12, Electrical Conductivity- 50 to 106 µmho/Cm	

17. **Greenbelt/Plantation:** There is proposal for plantation along the river bank in both sides of lease area. The riverbank plantation will be carried out in the 1st year of mining operation. 500 nos. of saplings will be planted over an area of 250m from each side of the lease area with 3 m width.
18. **Manpower:** Total 31 Nos. (Out of which 1 no. is skilled, 2 nos. are semi-skilled and 27 nos are unskilled and 1 supervisor) of persons are required for the project.
19. **Project cost:** Total cost of the project will be Rs. 15,00,000/- approximately.
20. The proponent along with the consultant **M/s Kalyani Laboratories PVT.LTD**, Bhubaneswar, made a detailed presentation before the SEAC on 13.01.2023. The SEAC decided to take decision on the proposal after receipt of certain information / documents from the proponent: The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
1.	Revised checklist indicating distance from bridge. Whether the location of the mines is confirming to distance criteria from the Bridge as per Enforcement Monitoring Guideline for Sand Mining (EMGSM)- 2020.	Checklist indicating distance from the bridge is 330m is attached as <b>Annexure 1</b> . As certified by Tahasildar Dharmasala, the distance of rail bridge is 330 m. As per Enforcement Monitoring Guideline for Sand Mining (EMGSM)- 2020 sand and gravel shall not be extracted up to a minimum distance of 250 meters on upstream side. Hence, it conforms the distance criteria from the bridge to the quarry lease hold boundary.
2.	Details of span of Bridge as per records of Railway Authorities in upstream of the river for no-mining zone.	Span of the railway bridge as per the measurement of Tahasildar and Railway records is 44 m. Document attached <b>Annexure 2</b> .
3.	Grid layout of replenishment points taken with dimension and direction.	Grid layout of replenishment points taken with dimension and direction attached <b>Annexure 3</b> .
4.	KML file of revised lease area	There is no revision in the lease area. The lease area will remain as 5.058 Ha. KML file attached. <b>Annexure 4</b>

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
5.	Compliance to public hearing issues raised by the public and cost estimation with timeline for implementation.	Detail Time bound action plan in compliance to public hearing is attached <b>Annexure 5</b> .
6.	The project proponent shall ensure to maintain the road used for transportation and accordingly detailed proposal with cost estimation for maintenance of transportation road is to be submitted.	A ramp from the Marjitapur Sand Quarry lease area to the village road connecting NH 53 proposed to be constructed by the lessee. This ramp is 6m wide and 150m length which will be constructed by the lessee. Further the road used for transportation from the lease area to NH 53 will be maintained by the lessee which is 4.0 Km. Cost allocated for the maintenance of the road will be 1.0 Lakhs per annum. Undertaking in this regard is attached as <b>Annexure 6</b>

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

- Amended EIA Notification dated 25<sup>th</sup> July, 2018, Guidelines for sustainable sand mining, 2016 and Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India shall be adhered to in execution of Mining. Therefore, keeping in view the span of railway bridge on upstream side of mining area, no mining shall be carried out upto 500 meters of the bridge.
- Regular replenishment study as per guidelines to be conducted and report to be submitted.
- Provision of Bio-toilet shall be made at the site.
- Avenue plantation and plantation on both sides of the haulage road in consultation with/ on the advice of concerned Forest Department, Government of Odisha & W.R. Department Government of Odisha as well.
- Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.

## **ITEM NO. 02**

### **PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/s MY HOME INDUSTRIES PVT. LTD FOR GREENFIELD PROJECT FOR INSTALLATION OF CEMENT GRINDING UNIT OF CAPACITY 3.0 MTPA (1.5 MTPA IN PHASE - 1 & 1.5 MTPA IN PHASE - 2) AT VILLAGE – BYREE, TAHASIL – DARPAN, DISTRICT – JAJPUR, ODISHA OF SRI SURESH B - EC**

- This proposal is for Environmental Clearance of M/s. My Home Industries Pvt. Ltd for Greenfield Project for installation of Cement Grinding Unit of capacity 3.0 MTPA (1.5 MTPA in Phase-1 & 1.5 MTPA in Phase-2) at Village – Byree, Tahasil – Darpan, District – Jajpur, Odisha of Sri Suresh B.
- Category:** As per EIA Notification dated 14th Sep.2006, this project falls under Category “B” of Activity 3(b)- Cement Plants (EIA Notification dated 14th Sep.2006 as amended on time to time.
- Terms of Reference was issued by SEIAA vide Letter No. 3701/SEIAA, dated 27.12.2021.

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**Environmental Scientist, SEAC**

4. Public Hearing was conducted on 05.08.2022 at venue Jagannath Temple Field (Khata No. 1298, Plot No. 4228) in Byree Village, Jajpur, Odisha. Major issues were Environment protection, local area development and local employment and budget allocated towards public hearing issues is Rs. 15 crores.
5. **Location and connectivity:** The proposed site is located at Village – Byree, Tahasil – Darpan, Jajpur District of Odisha. The site falls under Survey of India toposheet no. F45U2 with Latitude: 20°36'43.97"N to 20°37'32.71"N & Longitude: 86°01'20.00"E to 86°01'34.55"E. The general terrain in the area proposed for the cement grinding unit is non-forest barren land. The topography of the project site is mostly levelled with scattered undulations. The site is well connected by road and rail. Nearest National Highway is NH -16 at 3.68km. Byree Railway Station is at 1.10km from site. Nearest Airport is Biju Patnaik International Airport, Bhubaneswar – 45.65 km. Nearest habitation is Village Byree located at distance of 1.55km. Nearest city – Cuttack at 21.55km and Jajpur at 40.34km. Nearest River is Mendhakhai Nadi – 4.48 km and Birupa River at 7.33km. Nearest Reserve forest is Dalijora RF at 0.77km. No national park or sanctuary is present within 10km radius from project site.
6. **Land use pattern:** The project area will be setup over an area of 63.23 Acres (25.59 Ha). The proposed land is Govt. land will be leased out from IDCO. About 21.29 Ha. of land has already been leased out from IDCO. The balance land acquisition is under process. There is no involvement of forest Land Greenbelt / Plantation will be developed over an area of 21 Acres of land.

**Table: Land Use Break-Up**

S.No.	Particulars	Area (in Acres)	Area (in Ha.)
i)	Plant & Machinery Area		
ii)	Building area for plant & machinery	4.60	1.86
iii)	Internal Concrete Road	6.00	2.43
iv)	Internal Railway Siding	4.50	1.82
v)	Water Reservoir/Rainwater Harvesting	0.30	0.12
vi)	Truck Parking	0.60	0.26
vii)	Greenbelt Area	21.00	8.50
viii)	Vacant Area	26.23	10.60
	<b>TOTAL</b>	<b>63.23</b>	<b>25.59</b>

7. **Process Technology:** The proposed cement grinding unit of 3.0 MTPA capacity is envisaged to make use of the latest technology of Vertical Roller Mill (VRM). It has become the standard for grinding raw materials in the cement manufacturing process. VRM is a compact unit, making the footprint of the installation smaller and reducing civil engineering costs when compared to the ball mill system. Power consumption by VRM is also relatively low compared to other classic grinding technologies. The raw material grinding capacity of VRM is also very high. Therefore, considering these enumerated benefits, the management decided to rope in the VRM Technology for this proposed Grinding Unit.
8. **Plant Configuration:** The table below details out the plant configuration and production capacity.

**Table 2: Plant Configuration along with production capacity**

Unit	Capacity (MTPA)		Product Mix
	Phase-1	Phase-2	
Cement Grinding Unit (Vertical Roller Mill)	1.5	1.5	PSC, CC, PPC & OPC

**9. Raw Material Requirement**

Sl. No.	Raw Material	Quantity (TPA)	Source	Mode of Transport
1.	Clinker	18,63,000	MHIPL, Telangana	Road/Rail
2.	Gypsum	1,50,000	Coromandel Fertilizer, Vizag / PPL, Paradeep	Road/Rail
3.	Fly Ash	3,72,000	TATA Steel Kalinga Nagar	Road/Rail
4.	BF Slag	6,15,000	TATA Steel Kalinga Nagar	Road/Rail
5.	Coal	1,32,000	MCL, Talcher	Road/Rail

10. The annual production of cement is targeted at 1.5 MTPA during phase-1 and total 3.0 MTPA after completion of phase-2.

11. **Green belt:** About 8.5 Ha of the total project area will be covered under green belt & plantation. A 5-year afforestation scheme has been planned to develop over an area of 8.50 Ha with 1500 saplings/ha. Native plant species will be planted in consultation with local horticulturist such as Neem, Gulmohar, Ashoka, Shisham, Jamun etc.

12. **Water requirement:** The total water requirement for the proposed plant is estimated at 90 KLD. The water requirement will be met from the ground water through bore well. The treated water will be used in greenbelt development.

**Water Requirement Break-up**

S.No.	Particulars	Requirement (KLD)
1.	Industrial	60
2.	Drinking & Sanitation	15
3.	Greenbelt & Dust suppression	15
	TOTAL	90

13. **Wastewater generation:** As the proposed plant will be operated on the dry process and air is used as cooling media, no wastewater will be generated from the process. The domestic sewage to the tune of 12 KLD will be generated which will be treated in STP of 15 KLD capacity. The treated water will be reused in greenbelt development and road washing.

14. **STP:** Sewage Treatment Plant (STP) of capacity 15 KLD will be installed for treatment of domestic wastewater in Plant.

15. **Power requirement:** During construction phase, the power required will be 0.5 MW, which will be sourced from OPTCL/TPCODL. The grinding unit will require 12 MW (Phase-1: 10 MW + Phase-2: 2 MW) during operation phase to run the entire unit smoothly, which shall be supplied by OPTCL / TPCODL. In case of emergency or power failure or maintenance shut down, MHIPL has proposed for 1 no. of D.G. Set of 320 KVA for power back-up.

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16. The baseline data is generated within 10 km radius for air, water, soil, noise & ecological studies. The baseline environmental data were generated for summer season i.e., during March 2021 to May 2021.

17. **Meteorology** - The meteorological data recorded during the study period for proper interpretation of the baseline information as well as for input in modeling. During monitoring period, predominant wind direction was observed South (S). The following observations were made -

**Ambient Air Quality Monitoring** - Eight (8) AAQ monitoring stations were established covering the predominant (upwind and downwind) directions of the proposed plant in the study area of 10 km radius. It is evident from the monitored results that maximum values for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> & CO are in conformity with the norms of CPCB.

❖ **Particulate Matter (PM<sub>10</sub>)**

- Maximum value of 93.9 µg/m<sup>3</sup> was observed at AQ-6 (Near OCL Plant) as there is an existing cement manufacturing plant in the vicinity.
- Minimum value of 32.4 µg/m<sup>3</sup> was observed at AQ-5 (Mania village).
- Average PM<sub>10</sub> ranged between 41.0 - 81.3 µg/m<sup>3</sup>.

❖ **Particulate Matter (PM<sub>2.5</sub>)**

- Maximum value of 56.3 µg/m<sup>3</sup> was observed at AQ-6 (Near OCL Plant).
- Minimum value of 19.4 µg/m<sup>3</sup> was observed at AQ-5 (Mania village).
- Average PM<sub>2.5</sub> varied between 24.6 – 48.8 µg/m<sup>3</sup>.

❖ **Sulphur Dioxide (SO<sub>2</sub>)**

- Maximum value of 23.6 µg/m<sup>3</sup> was observed at AQ-6 (Near OCL Plant).
- Minimum value of 4.1 µg/m<sup>3</sup> was observed at AQ-5 (Mania village).
- Average SO<sub>2</sub> varied between 4.2 – 19.9 µg/m<sup>3</sup>.

❖ **Oxides of Nitrogen (NO<sub>x</sub>)**

- Maximum value of 27.6 µg/m<sup>3</sup> was observed at AQ-6 (Near OCL Plant).
- Minimum value of 6.1 µg/m<sup>3</sup> was observed at AQ-5 (Mania village).
- Average NO<sub>x</sub> varied between 6.3 – 25.4 µg/m<sup>3</sup>.

❖ **Carbon Monoxide (CO)**

- Maximum value of 0.8 mg/m<sup>3</sup> was observed at AQ-6 (Near OCL Plant).
- Minimum value of 0.1 mg/m<sup>3</sup> was observed at AQ-5 (Mania village).
- Average CO varied between 0.12 – 0.60 mg/m<sup>3</sup>.

**Ambient Noise Quality**

- The day time and night time noise level in the study area was found to be under permissible limit.

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- During day time, the maximum noise level was recorded at N1 (Project Site) and minimum noise level was recorded at N8 (Near Amiyajhari School).
- During night time, maximum noise level was recorded at N1(Project Site) and minimum noise level was recorded at N8 (Near Amiyajhari School).

18. **Surface Water Quality** - As per reported surface water quality, pH value varied from 7.22 to 7.81, turbidity was within 2.8 to 18.2 NTU, Total dissolved solids ranged from 112 – 164 mg/l, Dissolved Oxygen varied from 6.1 to 7.1 mg/l. Chloride varied between 7.8 to 20.4 mg/l, Sulphates varied from 8.4 to 15.1 mg/l, and Nitrates varied from 2.68 to 3.92 mg/l.

19. **Ground Water Quality** - As per reported ground water quality, pH varied from 7.28 to 7.81 while turbidity varied from 1.8 to 4.8 NTU. Total Dissolved Solids varied from 114 to 212 mg/l, Total Hardness varied from 88 to 154 mg/l, Chloride varied from 20.6 to 32.8 mg/l. Nitrates varied from 1.4 to 9.6 mg/l, while Sulphates varied from 2.8 to 8.94 mg/l.

20. **Soil Quality** - Mostly the soils collected from different location in the study area are sandy loam in texture and are low in productivity with low organic carbon, phosphorous but medium in potassium. Most of the soil samples are sandy loam in texture having modular bulk density and pore space. The water holding capacity is low. pH ranges from 6.28 to 7.12. Available Nitrogen also follows similar trend; available phosphorous and potassium content is very low.

21. **Manpower:** Direct and indirect employment will be generated due to the proposed project. During operational phase, 200 temporary and 100 permanent employments will be generated.

22. **Project Cost:** The total investment for the proposed project works out to approximately Rs. 600 Crores (Phase-1: Rs. 410 Crores + Phase-1: Rs. 190 Crores). Environment Management Protection Cost includes Capital Cost of Rs. 9 Crores and Recurring Cost of Rs. 0.45 Crores/annum.

23. **Environment Consultant:** The proponent along with the consultant **M/s Visiontek Consultancy Services Pvt. Ltd. Bhubaneshwar**, made a detailed presentation before the SEAC.

24. The SEAC in its meeting on dated 23-12-2022 decided to take decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Land documents and Kisam of land.	Land document of the acquired land of 73.23 Acres along with Kisam of land is attached as <b>Annexure-1</b> .	Land agreement copies with kisam land Patita has been submitted.
2.	Certificate from concerned DFO that no forest land involved in project area.	Letter from concerned DFO regarding no forest land involved in Project Area is attached as <b>Annexure-2</b> .	complied
3.	Certificate from the concerned DFO that the location is not coming within the Notified ECO-sensitive Zone of Kapilash Wild Life Sanctuary and	Letter from concerned DFO regarding location of Project Site not coming within the Notified ESZ of Kapilash Wildlife Sanctuary is attached as <b>Annexure-2</b> .	Project Site is at 14.56km from ESZ of Kapilash Wildlife Sanctuary duly certified by DFO,

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	exact distance of the project location from the boundary of Kapilash Wildlife Sanctuary and its Eco-Sensitive Zone in topo sheet duly authenticated by concerned DFO.	And topo sheet duly authenticated by the DFO showing exact distance between Project Site and ESZ Boundary of Kapilash Wildlife Sanctuary of 14.56 km is attached as <b>Annexure -3</b> .	Cuttack Forest Division.
4.	A copy of certificate from DFO indicating that no Schedule-1 species are present within the project area.	Certificate from DFO indicating that no Scheduled –I species area present within the Project Area is attached as <b>Annexure-4</b> .	No Scheduled – I species area present within the Project Area certified by DFO, Cuttack Forest Division.
5.	The documents of actual layout of the plant with earmarked greenbelt area.	The Plant Layout with earmarked greenbelt area is attached as <b>Annexure-5</b> .	complied
6.	Traffic Study Report vetted by a reputed institute.	Traffic Study Report duly vetted by a reputed institute is attached as <b>Annexure-6</b> .	complied
7.	Mitigation measures for air pollution (PM <sub>2.5</sub> ).	Proposed mitigation measures for air pollution (PM) is attached as <b>Annexure-7</b> .	complied
8.	Detailed proposal for control of emission of SO <sub>x</sub> and NO <sub>x</sub> from the Hot Air Generator (HAG).	Proposal measures for control of emission of SO <sub>x</sub> and NO <sub>x</sub> from HAG is attached as <b>Annexure-8</b> .	complied
9.	In KML file, it is observed that two roads are passing through the proposed project site. Out of two roads, one is black top road. Actual area of the project deducting the land passing black top road to be submitted along with revised layout map and revised land use breakup.	The revised Plant layout incorporating the land use breakup is attached as <b>Annexure-5</b> .	complied
10.	Detailed plan, layout with supporting documents for alternative road connectivity.	Document regarding proposed alternate road connectivity is attached as <b>Annexure-9</b> .	The Project proponent has mentioned the present road is now used for transportation and Project proponent and has plans for for alternative road passing through Jhadeswar Station and Bhagatpur connecting NH-16 near Kapilash Road station. Google map of transportation route has been submitted.

Considering the information furnished and the presentation made by the consultant,

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**Environmental Scientist, SEAC**

**M/s Visiontek Consultancy Services Pvt. Ltd. Bhubaneswar, Odisha** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – B** in addition to the following specific conditions.

- i) The settling tank shall be designed considering the peak of daily rainfall obtained from the long-term rainfall data series available for the region. The excess water if discharged outside should meet the prescribed water quality standards.
- ii) The proponent shall maintain “Zero Liquid Discharge (ZLD)” concept as proposed.

### **ITEM NO. 03**

#### **PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S MAYFAIR HOTELS & RESORT LIMITED FOR PROPOSED G+7 STORIED (BLOCK-A) AND B+G+4 STORIED (BLOCK-B) HOTEL AND CONVENTION CENTRE “MAYFAIR SANCTUARY” OVER AN BUILT-UP AREA 99204.65 SQM LOCATED AT CHANDRASEKHARPUR, BHUBANESWAR, ODISHA OF SRI BIJU JOHN- EC**

1. This proposal is for environmental clearance of M/s Mayfair hotels & resort Ltd. for proposed LB+UB+G+5 storied (Block-A) and B+G+4 storied (Block-B) Hotel and Convention centre “Mayfair sanctuary” over a built-up area 94027.36sqm located at Chandrasekharpur, Bhubaneswar, Odisha of Sri Biju John.
2. **Category:** This proposal falls under Category B, 8(a) – Building and Construction projects in the schedule of EIA Notification 2006 and its subsequent amendments.
3. **Location and connectivity:** The proposed Hotel & Convention Centre project site is located at Plot No. 3(P), 4(P) in Khata No. 619 (GAD), Mouza - Chandrasekharpur, Bhubaneswar, Dist - Khurda, Odisha. The location of the project area can be seen in Survey of India Open Series No. F45N1 & F45N5. The Geographical co-ordinates of the project site are Latitude - 20° 19’ 59.63” N & Longitude - 85° 47’ 53.81” E. The project site is well connected with Nandankanan Road and National Highway-16 which is at a distance of 5.0km. The nearest railway station is Bhubaneswar Railway Station at a distance of 8.9km. The nearest Airport is Biju Patnaik International Airport, Bhubaneswar, which is approximately 9.7km from the site.
4. **Building Area Details:** The total plot area of the proposed building is 48562.28sqm. Total Residential FAR area is 71099.68sqm and total built up area of the building is 94027.36sqm.

<b>Particular</b>	<b>Proposed</b>	<b>Permissible</b>
Project Name	Proposed LB+UB+G+5 Storied (Block-A) and B+G+4 Storied (Block-B) Hotel and Convention Centre “Mayfair Sanctuary”	
Plot Area	48562.28 sqm	--
Ground Coverage	19410.34 sqm (39.97 %)	--
Total Built up Area	94027.36 sqm	--
Total FAR Area	71099.68 sqm	--
FAR	1.46	2.0
Maximum Height	23.70mtr (Block-A) 20.65mtr (Block-B)	--
Road & Paved Area	18711.05 sqm	--

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Parking Area	31874.68 sqm	24683.90 sqm
Estimated Population- Hotel	700nos.	
Estimated Population- Floating/visitors	70nos.	

5. **Water requirement:** Fresh makeup water of 350 KLD will be required for the hotel which will be sourced from WATCO/Ground Water.
6. **Waste Water generation** - It is expected that the project will generate approx. 272 m<sup>3</sup>/day of waste water. The waste water will be treated in the STP of capacity of 300 m<sup>3</sup>/day provided within the complex, out of which 258.4 m<sup>3</sup> will be recycled for landscaping (165 m<sup>3</sup>/day), dust suppression (93.4 m<sup>3</sup>/day), STP loss (13.6 m<sup>3</sup>/day). Zero discharge is proposed in non monsoon period and 165KLD treated water will be discharge to drain in monsoon period.
7. **Rainwater harvesting Pits:** A total no. of 111 nos. of rainwater harvesting pits at selected locations is proposed, which will catch the maximum run-off water from the area.
8. **Power requirement:** The daily power requirement for the proposed Hotel Project is preliminarily assessed as 2500 KVA source from TPCODL, Bhubaneswar. To meet emergency power requirements during the grid failure, there is provision of DG set having 2000 KVA capacity for power back up in the Hotel. The stack height of DG set is 32.64m.
9. **Renewable Energy/ solar Usage** - 40 Nos. of Solar Street Light poles of 2.88 KW capacities will be directly connected with Solar Panel.124.2 KW Solar energy generated from 60 nos. of PV Panels will be distributed to Grid with proper agreement. Thus, 5.6% of total power is contributed from solar energy.
10. **Total Solid waste generation and management:** From the hotel complex solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.45 kg/person/day, which will be about 315.0 kg/day. The generated solid waste from the hotel complex will be segregated as biodegradable and non-biodegradable. This will be collected in separate-colored bins. Proper waste management practices will be adopted during the collection, storage and disposal of the generated solid waste and construction and demolition waste.

S. No.	Category	Counts (heads)	Waste generated (kg/day)
1.	Hotel Population	700 @ 0.45 kg/day	315.0
2.	Floating Population	70 @ 0.15 kg/day	10.5
3.	STP Sludge	--	45.0
		<b>Total</b>	<b>370.5</b>

11. **Green belt:** Total area for greenbelt proposed is 10440.89sqm (21.5% of the plot area). The plantation matrix adopted for the green belt development includes pit of 0.3 m x 0.3 m size with a spacing of 2 m x 2 m. Multi-layered plantation comprising of medium height trees (7 m to 10 m) and shrubs (5 m height) are proposed for the green belt.
12. **Parking area:** Total Parking Area provided will be 31874.68sqm /1075 ECS consisting of Open Parking - 8947.0 sqm / 358 ECS, Basement Parking - 1 – 9500sqm /297 ECS and Basement Parking - 2 - 13427.68sqm /420ECS.

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13. **Firefighting details:** Firefighting system will be installed as per recommendation of the Fire Prevention Officer, Odisha and as per the guideline of NBC. The firefighting system comprises of Hose Reel, Down Comer, Automatic operated electric Fire Alarm system, Terrace Tank, Extinguisher and Fire Hydrant System, Automatic Fire Sprinklers system. Safe Evacuation route for building residents should be cleared marked to ensure safety of residents during any emergency.
14. **Project cost:** The total cost of project is 385 crores and cost of Environment management plan is ` 175 lakhs.
15. **Environment Consultancy:** The proponent along with the consultant **M/s Centre for Envotech and Management Consultancy Pvt. Ltd. Bhubaneswar** made a detailed presentation before the SEAC on 29.11.2022. The SEAC decided to take decision on the proposal after receipt certain information / documents from the proponent followed by site visit of Sub-Committee of SEAC. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
a)	Land documents with kissam of land.	Total land area of the proposed project is 48562.28 sqm. Detail Land documents with Kissam of Land are attached in <b>Annexure-1</b> .	Land documents are attached with Kissam of Land.
b)	The project boundary is adjacent to boundary of Eco-Sensitive Zone of Chandaka Wildlife Sanctuary. Certificate from concerned DFO that the project is not coming within the Eco-Sensitive Zone of Chandaka Wildlife Sanctuary.	The proposed project site is not coming within the Eco-Sensitive Zone of Chandaka Wildlife Sanctuary. NoC from Chandaka Wildlife Division is attached in <b>Annexure-2</b> .	As per finally notified vide S.O. 2906(E) dated 09.09.2016 of Govt. of India, MoEF&CC published vide letter no 2207 dated 09.09.2016, the site is not coming within the Eco sensitive zone of Chandaka-Dampara Wildlife sanctuary.
c)	Certificate from concerned DFO that construction activity for the project can be allowed as per recent order of the Hon'ble Supreme Court.	The proposed project site is not coming within the Eco-Sensitive Zone of Chandaka Wildlife Sanctuary. NoC from Chandaka Wildlife Division is attached in <b>Annexure-2</b> .	Complied and NoC attached.
d)	Copy of application applied to BMC for drainage connection and current status of it.	Copy of application applied to BMC for drainage connection is attached in <b>Annexure-3</b> .	Application of NOC to BMC for drainage connection is attached.
e)	A Study on impact on wildlife due to the upcoming project to be carried out in consultation with the concerned DFO and report to be submitted.	A study report regarding Impact on Wildlife is attached in <b>Annexure-4</b> . DFO Letter regarding report submission is attached in <b>Annexure-5</b> .	The study report regarding Impact on Wildlife is attached along with DFO letter regarding impact of wildlife on the nearby Chandaka Dampara wildlife

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
			sanctuary suggesting with the stipulations to be adhered.
f)	Safety measures to be taken to prevent trespass of wild animals to the project site.	A study report regarding Impact on Wildlife is attached in <b>Annexure-4</b> .	Complied.
g)	Corrected KML file of the project with boundary co-ordination and demarcation in yellow colour.	Corrected KML file is attached in <b>Annexure-6</b> .	A Toposheet is showing project location is attached. Corrected KML is attached.
h)	Layout of Rain Water Harvesting Pits.	Layout Plan of Rain Water Harvesting Pits is attached in <b>Annexure-7</b> .	Complete layout plan of Rain Water Harvesting Pits is attached with individual recharging pit capacity of 18.84 Cum and 4.0 m in diameter.
i)	Undertaking that transit house from the project premises shall be relocated before commencement of construction activity of the project.	Undertaking regarding Transit house is attached in <b>Annexure-8</b> .	The unit has mentioned that the transit house is a temporary arrangement under administration of BDA and BMC and it is located outside the Plot. Slum residents will be shifted to RAY housing flats within next 2-3 months. Undertaking is attached for relocation of Transit houses after follow up with the Government.

16. The proposed site was visited by the Sub-Committee of SEAC on 24.03.2023 and the observations of the sub-committee are as follows:

- a) No construction activity has been initiated at site. Only slum houses are there close to one side but outside the boundary. So, there is no such transit house.
- b) A drain close to the site of the road was observed. The land is connected with one road and another road of 60 ft to be constructed in the front side (Govt. document was shown by the PP for the same).
- c) Plantations (green belt) activities are in progress.

17. The proponent has intimated that they have made certain modifications in the drawings as desired by the Fire Department which they have also incorporated in the revised drawing resulting in change of areas on each floor keeping the same FAR. Earlier there were 2 Buildings Block-A & Block-B, where Block-A had Lower Basement + Upper Basement +Ground Floor+5, which they now changed to Ground Floor + 7, since there is a 24 ft level difference in the

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Project Site from one end to the other end, so Ground Floor is open from other 3 sides, where the Fire Department has suggested to change the nomenclature of the Floors, hence they had to change it accordingly. They have enclosed a revised Layout Plan & revised Area Statement which they have requested to change and incorporate in their final approval. However, there are no changes to Block-B, it is still Basement + Ground Floor+4. The revised area statement is as follows:

<b>AREA STATEMENT</b>			
<b>PLOT AREA - 48562.28 Sq.m. (12 Acres)</b>			
<b>BLOCK A</b>			
<b>S.No</b>	<b>Floor Name</b>	<b>Area in SQM</b>	<b>Total Area in SQM</b>
1	<b>Total Ground floor Area</b>	<b>17030.00</b>	
2	Ground floor Service Area	9716.00	
3	Ground floor Parking Area	7314.00	
1	<b>Total First Floor Area</b>	<b>22780.00</b>	
2	First Floor Service Area	3711.00	
3	First Floor Parking Area	19069.00	
1	<b>Total Second Floor Area</b>	<b>15686.00</b>	
2	Second Floor Convention and Banquet Area	6322.00	
3	Second Floor Hotel Area	6403.00	
4	Second Floor Restaurant Area	2961.00	
1	<b>Total Third Floor Area</b>	<b>9454.00</b>	
2	Third Floor Convention and Banquet Area	2423.00	
3	Third Floor Hotel Area	7031.00	
1	<b>Fourth Floor Area</b>	<b>7028.00</b>	
1	<b>Fifth Floor Area</b>	<b>7028.00</b>	
1	<b>Sixth Floor Area</b>	<b>5398.00</b>	
1	<b>Total Seventh Floor Area</b>	<b>2549.00</b>	
<b>Total Built up Area - Block -A</b>		<b>86953.00</b>	
	Total FAR Area - Block A	60570.00	
	Height of building ( in M)	35.33	
<b>BLOCK B</b>			
<b>S.No</b>	<b>Floor Name</b>	<b>Area in SQM</b>	<b>Total Area in SQM</b>
1	<b>Total Basement Area</b>	<b>1795.00</b>	
2	Basement Floor (Service)	55.00	
3	Basement Floor Parking Area	1740.00	
1	<b>Total Ground Floor Area</b>	<b>3494.65</b>	
2	Ground Floor (Service)	215.00	
3	Ground Floor Restaurant area	760.00	
4	Ground Floor Retail shopping and AV Hall area	2519.65	
1	<b>Total First floor Area</b>	<b>3024.00</b>	
2	First Floor Retail shopping Area	2056.00	
3	First Floor Management office area	208.00	
4	First Floor restaurant area	760.00	
1	<b>Second Floor Management office</b>	<b>1307.00</b>	
1	<b>Third Floor Management office</b>	<b>1307.00</b>	
1	<b>Fourth Floor Management office</b>	<b>1307.00</b>	
<b>Total Built up Area - Block B</b>		<b>12234.65</b>	

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	Total FAR Area - Block B	<b>10494.65</b>	
	Height of building ( in M)	21.9	
1	<b>Temple</b>	<b>17.00</b>	
	TOTAL FAR AREA	71081.65	
	<b>TOTAL BUILT UP AREA</b>	<b>99204.65</b>	
	PERMISSIBLE FAR AREA		<b>97124.56</b>
	FAR	Permissible 2.00	Achieved 1.46
	<b>Site Area</b>		<b>48562.28</b>
	<b>Ground Coverage</b>		<b>19180.65</b>
	<b>Ground Coverage %</b>		<b>39.50</b>
	<b>Open area</b>		<b>29852.28</b>
	<b>PARKING</b>		
	Open Parking Area-1		3697.00
	Ground floor Parking Area (Block-A)		7314.00
	First Floor Parking Area (Block-A)		19069.00
	Basement Parking Area (Block-B)		1740.00
	<b>Total Parking (Open-3697 + Covered-28123)</b>		<b>31820.00</b>
	<b>PLANTATION AREA</b>		
		Required	Provided
	No. of trees	608	732
	<b>Green Belt Area (in Sqm)</b>	<b>9712.46(20%)</b>	<b>10071.73(20.73%)</b>
	Recharging Pit (in cu.m.)	1152	1205
	No. of Recharge Pit (in Nos.)	62	64

18. The committee observed from the information submitted by Proponent that there is a change in one of the blocks with regard to built-up area, parking, layout etc. The reason stated is as desired by Fire department. Therefore, the SEAC decided to take decision on the proposal after receipt of the following from the Project Proponent for further deliberation:

- a) A communication with fire department suggesting changes.
- b) A comparative table of all aspects of the building that was presented and now submitted highlighting changes.
- c) All related documents and environmental documents in support of the changed plan.
- d) BDA approval (provisional or if applied) in support of the changed plan.
- e) Proponent to submits revised documents such as Form-I, Form-IA, Pre-feasibility report and other documents etc for the changed plan.
- f) Confirmation that no environmental load like: water consumption, effluent generation and treatment, green belt% etc have been changed due to change in plan.



#### ITEM NO. 04

**PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S RUNGTA MINES LTD. FOR THE JUMKA PATHIRIPOSHI PAHAR IRON ORE BLOCK FOR A TOTAL EXCAVATION OF 3.98 MTPA (ROM IRON ORE: 3.35 MTPA + WASTE: 0.63) BY OPENCAST MECHANIZED METHOD, OVER AN MINING LEASE AREA OF 158.509 HA.(CONSISTING OF GOVT. FOREST LAND - 156.978 HA AND PRIVATE LAND - 1.531 HA.) LOCATED IN BATAGAON, KENSARA OF LAHUNIPARA TAHASIL OF SUNDARGARH DISTRICT AND VILLAGE – KADAKALA, BANSPAL TAHASIL OF KEONJHAR DISTRICT, ODISHA OF SRI HIRAK MAZUMDER - EC**

1. This proposal is for Environmental Clearance of M/s Rungta Mines Ltd. for the Jumka Pathiriposhi Pahar Iron Ore Block which has been allotted through auction. The total excavation will be 3.98 MTPA (ROM Iron Ore: 3.35 MTPA + waste: 0.63) by opencast mechanized method over a mining lease area of 158.509 ha. (Govt. forest land is 156.978ha. and Private land is 1.531ha.) located in villages - Batagaon ,Kensara Of Lahunipara Tahasil Of Sundargarh District And Village – Kadakala,Banspal Tahasil of Keonjhar district, Odisha of Sri Hirak Mazumder.
2. The project falls under category “B” or activity 1 (a) - Mining of Minerals projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. **Project Details:** M/s Rungta Mines Ltd. was declared as the “Preferred Bidder” for Jumka Pathiriposhi Pahar Iron Ore Block, as per auction conducted by Government of Odisha. The block covers 158.509 ha of land falling in villages Batagaon, Kensara (also known as Kedeshala) in Sundargarh District & village Kadakala in Keonjhar District of Odisha. The Project area comprises of 156.978 Ha. forest land and 1.531 ha non forest government land. The project area is presently a virgin land.
4. **TOR details:** Jumka Pathiriposhi Pahar Iron Ore Block has been awarded Terms of Reference (TOR) for preparation of EIA/EMP Report vide MOEF&CC’s letter no. IA-J11015/2/2022-IA-II(NCM) dated 18 February 2022.
5. **Public hearing details:** Public hearing was held in two districts in respect of M/s Rungta Mines Ltd. for proposed Jumka Pathiriposhi Pahar Iron Ore Block. Public Hearing in Keonjhar district, was held on 09.09.2022 at 11:00 am at Kadakala playground, Khata No. 42 (Rakhita), Plot No. 51/314/1, District Keonjhar and in Sundargarh district, it was held on 03.09.2022 at 10:30 am at Football playground, Kensara village, Bhutuda G.P., District Sundargarh. During public hearing, most of the people welcomed the project and raised few points related to generation of employment opportunity, provision of good school & education, water supply facility, establishment of healthcare unit, skill development, etc. Expenditure towards meeting the public hearing cost will come to Rs.264.7 lakhs (capital cost) and Rs. 172.7 lakhs (recurring cost).
6. **Location and Connectivity:** The proposed Jumka Pathiriposhi Pahar Iron Ore Block is located in villages of Batagaon, Kensara (also known as Kedeshala) in Sundargarh district & village Kadakala in Keonjhar District of Odisha. The mining lease area falls in the Survey of India Toposheet no. 73 G/1 (open series map F45N1). The area is bound by Latitude 21°47’32.62280” N to 21°48’54.81396” N and Longitude 85°12’13.87352” E to 85°13’25.32167” E. The block is connected by all-weather forest road currently and at a distance of 9.7km from Koida Town and 125.2km from District Sundergarh. Nearest railway station is Barsuan, 10.6 km WNW aerially. The nearest civilian airports are situated at Rourkela (64 km, NNW), Ranchi (166 km, N) and Jharsuguda (120 km, W). Nearest Highway is NH – 520, Rajamunda to Rimuli Road - 10.3km, N.

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There are no National parks, Wildlife Sanctuary, Biospheres reserves within 10 km radius. The nearest sanctuary is Simlipal Wildlife sanctuary at a distance of 89.03 km in E direction from the proposed project and elephant Reserve is Mayurbhanj at 58.78 km. There are five reserve forests (Sarkanda R.F. (2.9 km, NW), R.F. Near Anandapur (Bhabari Pahar) (7.8 km, NNE), Khajurdihi R.F. (0.8 km, NE), Khandadhar RF (6.4 km, SW), Torha R.F.(6.0 km, WNW) present within 10 km radius of the project. There is presence of Schedule-I species like Elephant, Indian Monitor Lizard and Sloth bear in buffer zone of study area.

7. **Topography:** The iron ore block is located on a hill area with undulating topography. Elevation of core zone ranges from 914 m to 1042 m above mean sea level. General gradient of the mine lease area is towards the west with an occasional mound in the northern portion. Jumka Pathiriposhi Pahar Iron Ore Block is free from any mining activity since it is a new mine. However, within the 10 km radius of the project there are several working as well as non-working iron/manganese mines.
8. No prominent drainage pattern is developed over the lease hold area. There is no perennial nallah passes through the lease area. The Phulamanali nallah which is 2.6 KM SSW to the lease. The topography of the mine is such that no run off from the lease will meet the Nallah.
9. **Seismicity:** The project is under very feeble to slight intensity Seismic zone II. The project area is not prone to floods, landslides or cloudburst etc.

10. **Status of Statutory Clearances –**

- Mining plan is approved from IBM vide letter no. IBM MP/A/18-ORI/BHU/2021-22 dated 24.11.2021.
- Forest Clearance for 156.978ha. has been applied online vide proposal number FP/OR/MIN/150048/2021 on 10/12/2021 for diversion of 156.978 ha of forest land.
- Surface Water withdrawal permission has been applied to Water Resources department vide application no. 2022040841000367 on dt. 08.04.2022.
- Site Specific Wildlife Conservation Plan is under preparation by Forest Department. Request letter was submitted to DFO Bonai Forest Division, Bonai, vide letter no. RSPL/BBL/GEO/2022-23/ dated 30.05.2022 for preparation and Approval of Site Specific Wildlife Conservation Plan of Jumka Pathiriposhi Pahar Iron Ore Block.

11. **Total Reserves -** The iron ore block is a virgin/ new area. The entire mine lease area is mineralized. The entire resources estimated falls in 331, 332 & 333 category as G2 level. The area has been explored by GSI and MECL through 85 (29 by GSI and 56 by MECL) number of drill holes (5363.1 m) at a spacing of 200 X 200 m. The exploration confirms to G-2 category under UNFC guidelines. The Geological Reserve is 155.864 million tonnes and Mineable Reserves is 140.278 million tonnes while. The production table for 5 year is as follows:

Year	Production proposal (MTPA)
1 <sup>st</sup> year 2024-25	0
2 <sup>nd</sup> year 2025-26	0

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<sup>rd</sup> 3 year 2026-27 (From 27.10.2026 to 31.03.2027)	1.432 (for 156 days/five months only)
<sup>th</sup> 4 year 2027-28	3.35
<sup>th</sup> 5 year 2028-29	3.35

12. **Mining method:** Opencast mechanised mining method has been chosen for the proposed Jumka Pathiriposhi Pahar Iron Ore Block. Fully mechanized opencast mining method shall be adopted with excavator, loader, dumpers etc. for excavation work. Height & width of individual benches is proposed to be kept as 10 m and 18 m in ore and 10 m and 12 m in OB respectively. The conventional opencast method with utilization of excavator of capacity up to 4.2 m<sup>3</sup>, dumpers of capacity up to 30/40 MT, rock-breakers, deep-hole drilling and blasting will be adopted. The overall pit slope would be kept 45°.
13. **Waste Generation and Management** - During the five year of mining plan period, 481073 cum of waste will be generated. The alluvial soil capping the rock bed is the loosen OB that exists in some part of the block. This will be removed separately and simultaneously used for plantation. Only temporary storage for top soil is proposed. It will be stored on 7.301 ha of land. The maximum height of the OB dump during plan period will be 50 m (wrt 948 mRL on south side) and 20 m (wrt 978 mRL wrt the adjoining areas). The top of the OB dump will be at 998 mRL compared to 948 mRL of the adjoining area. The height of the OB dump will be enhanced due to dumping of more and more waste, which will be generated during proposed period of mining after plan period. Although, backfilling is not proposed during initial 5 year plan period, as reserve of iron ore in the proposed quarry will not be exhausted, but after OB dumping on 7.301 ha, the balance waste generated till end of the mine will be used for backfilling.
14. Life of Mines is 50 years from execution of mine lease.
15. **Water requirement:** Total requirement of water is estimated at 464 KLD. Out of which, for Drinking purposes, ground water will be used is 94 KLD and surface water will be used for Mining purposes, either from Phulamanali Nala or harvested rain water is 370 KLD. Water will be utilized for green belt development (30KLD), sprinkling on haul roads/dust suppression (24KLD), drinking & domestic purpose in mine, camp outside lease and periphery, High Pressure water jet in Crushing and screening (95KLD) and Miscellaneous (5KLD).
16. **Wastewater management:** No wastewater is anticipated from mining activities. Domestic sewage will be treated to the norms prescribed by regulatory agencies prior to reuse. The mine will be zero discharge except during monsoons. The domestic wastewater from facilities in the mines will be treated in septic tanks with soak pits. There shall be a rainwater harvesting pond in the mine lease area.
17. **Power Requirement:** The total power requirement for the mine will be about 200 KVA which shall be sourced from the nearby line of TP Western Odisha Distribution Limited. In case of power failure, generators of total capacity 200 KVA will be used.
18. **Flora/Fauna:** Within core zone 20 species of trees, 4 species of shrubs, 3 species of climbers and 2 species of grasses are present. Common native species such as Arjun, Bel, Char, Kendu, Jamun, Neem, Palas, etc. are also present in the core area. 4 species of mammals, 2 species of reptiles, 5 species of birds were recorded from the core zone. Avifaunal species found are House

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Crow, House Sparrow, Pigeon etc. Mammals found are squirrel, cat, mongoose and rat. Reptiles reported are krait and rat snake. Three Schedule I animal namely, Elephant, Sloth bear and Indian Monitor Lizard has been reported in the buffer area.

19. **Green belt:** Till the end of life of mine, greenbelt having width 7.5 m on 5.77 ha land shall be developed with. A budget of Rs. 5.85 lakhs (capital cost) and Rs. 8.52 lakhs/ annum (recurring) is proposed towards green plant & plantation. Plantation around various facilities, on dump, mined out areas, dismantled facility area and along periphery shall be undertaken in a phased manner. Plantation shall be started from third year of mining and continued till conceptual period. An estimated 2500 trees per ha shall be planted. Plantation will attract small fauna and birds and serve as micro habitats.
20. **Baseline study** of the study area was conducted during previous winter season i.e. from 01.12.2021 to 28.02.2022. Following results were obtained:
- **Ambient Air Quality** - Monitoring made in 8 locations & results shows the values of PM<sub>10</sub> 28.4 to 44.8 µg/m<sup>3</sup>, PM<sub>2.5</sub> was found to vary from 16.3 to 20.9 µg/m<sup>3</sup>, SO<sub>2</sub> from 1.1 to 6.6 µg/m<sup>3</sup> and NO<sub>2</sub> from 2.0 to 6.6 µg/m<sup>3</sup>. The CO level were ranged from Below Detectable Limit to 0.987 mg/m<sup>3</sup>, Nickel, Arsenic and Lead was found Below Detectable Limit (BDL) of <0.6 ng/m<sup>3</sup>; <0.4 ng/m<sup>3</sup>; <0.07µg/m<sup>3</sup> respectively. The maximum incremental values due to mining, in absence of any control measures, have been estimated as 1.806 µg/m<sup>3</sup> for PM10 and 1.038 µg/m<sup>3</sup> for PM2.5 within ML at the air quality monitoring location. Incremental has been estimated as 1.337 µg/m<sup>3</sup> for SO2 and 22.410 µg/m<sup>3</sup> for NO2 at the ML boundary. The ore will be transported by road through trucks. The maximum incremental values due to transportation have been estimated as 5.60 µg/m<sup>3</sup> for PM10, 1.36 µg/m<sup>3</sup> for PM2.5, 0.05 µg/m<sup>3</sup> for SO2 and 2.35 µg/m<sup>3</sup> for NOx at a distance of 20 m from the road. When these incremental GLC are added to the baseline air quality level, the resultant 24 hours average air quality has been found well within the limits specified in the National Ambient Air Quality Standards.
  - **Noise Quality** - The noise levels were measured at eight stations in core and buffer zone located in residential areas. The noise levels observed during day time varies from 45.31 to 51.66 dB (A) and at night time varies from 36.30 to 40.34 dB (A). All the noise values observed are well within the limits prescribed by National Ambient Air Quality Standards for Noise.
  - **Surface water quality** - monitored in 8 locations and pH range from 6.8 to 7.4., total dissolved solids – 30mg/L to 76mg/L, Iron content is BDL – 0.40mg/L, Chloride content ranges from 4mg/L to 14mg/L, sulphate content ranges from 1mg/L to 6mg/L, Fluoride content is BDL, Magnesium content ranges from 2mg/L to 7mg/L All other parameters were also found to be within the permissible limits.
  - **Ground water quality** - monitored in 8 locations and pH ranges from 6.7 to 7.8., total dissolved solids ranges from 30mg/L to 268mg/L, total Hardness as CaCO<sub>3</sub> ranges from 16mg/L to 48mg/L, total alkalinity ranges from 20mg/L to 243mg/L .Iron content is BDL – 0.88mg/l, Chloride content ranges from 4mg/L to 14mg/L, sulphate content is BDL – 3mg/l, Fluoride content is BDL – 0.24mg/l, Magnesium content ranges from 1mg/L to 22mg/L. All other parameters were also found to be within the permissible limits.
  - **Soil quality** - Top soil samples were collected from core & buffer zone, from four locations. Samples were collected from North and South side of core zone and in buffer zone from

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Kedeshala and Batagaon villages. Particle size analysis shows that the texture of the soil is fine to medium grained sand with reddish colour. pH has been observed to be acidic with low electrical conductivity. Organic carbon is high at all locations. The phosphorus and nitrogen content at all locations is low to high.

21. Traffic density survey was conducted at three locations namely, near Jaldihi village (3.1 km, NE), near Batagaon village (1.3 km, SW) and Shilgurha village (8.7 km, W). Traffic volume recorded was 24, 32 and 3596 passenger car units per day, respectively. Based on observed traffic data and existing road width, current utilisation of maximum capacity of the road is 1.41 % at Jaldihi, 1.88% at Batagaon and 17.98% at Shilgurha.

22. Land Use/ Land cover – The land utilization plan as per the table:

Land ownership	Area	%
<b>A. Forest</b>		
A. Revenue Forest	9.175	5.76
Proposed Reserve Forest	147.803	93.24
Grand Total	156.978	99.04
B. Non-Forest Land	1.531	0.96
Total	158.509	100

#### PRE-MINING LAND USE

Land Use	Area in Ha.
<b>Forest</b>	156.978
Agricultural Land	0
Surface water Bodies	0
Settlements	0
Road	0
Grazing land	0
Barren land	0
Waste Land	1.531
<b>Total</b>	<b>158.509</b>

Sl. No.	Particulars	Area in ha. (in conceptual period)
1.	Mined out area	120.796
2.	Overburden/Waste dumping	7.301
3.	Ore stock yard	9.29
4.	Temporary Office, weigh bridge etc.	3.0
5.	Mine Road	8.012

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6.	Rain water harvesting pond	0.52
7.	Mobile Crushing & Screening plants	3.82
8.	Others (Plantation etc.)	5.77
<b>Total</b>		<b>158.509</b>

23. **Manpower:** The manpower required for the mine in unskilled, semi-skilled, skilled & other categories will be 258 persons.

24. **Project Cost:** The expected cost of the project is Rs. 380 crores. The investment on only environmental monitoring has been envisaged as Rs. 60.73 lakhs and recurring expenditure is envisaged as Rs. 32.91 lakhs per year.

25. **Environment Consultant:** The proponent along consultant **M/s Centre for Envotech and Management Consultancy Pvt. Ltd., Bhubaneswar**, along with the proponent made a presentation on the proposal before the Committee on 23.12.2022. The SEAC decided to take decision on the proposal after receipt of certain 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
a)	A primary school is situated 500 meters from the lease area. The proponent shall submit a detailed action plan to adopt additional Pollution Control Measures to protect the school children from pollution as well as safety point of view. A proposal for dust barrier towards school shall also be submitted.	<p>The primary school is situated at a distance of 500 mt from the western boundary of the lease area. To protect the school children from pollution as well as safety point of view following protection measures will be taken.</p> <ul style="list-style-type: none"> <li>a) During proposed mining operations, all the pollution protection measures like wet drilling, water sprinkling on blasted mock piles and on the haul roads will be done.</li> <li>b) Crushing &amp; Screening plant will be attached with inbuilt dry fog systems to suppress dust at source, not allowing it to be air borne.</li> <li>c) Air monitoring will be done on regular basis to study the ambient air quality in quarry site, dumping site, haul road, ore processing site etc. as per the guide line.</li> <li>d) All HEMM will be maintained properly to control vehicular emissions.</li> <li>e) Controlled blasting with nonel firing will be adopted with use of delay detonators to reduce the blast induced ground vibration, noise pollution as well as to control fly rocks.</li> <li>f) During school hours watch and wards of the school children will be done by deploying security personnel.</li> <li>g) Along the lease boundary, a green belt will be developed with big leafy trees as per the guidance of forest department.</li> <li>h) The School will be surrounded by a green belt with 3-tire plantation with big leafy tree species under the guidance of forest department with consultation of school management.</li> </ul>	----

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
b)	Follow SOTM guidelines for material transfer through conveyor belts as per NEERI guidelines. A detailed proposal to be submitted.	Jumka-Pathiriposhi Mine is falling under SOTM-II category as per NEERI Guideline. The ore produced from the mine will be dispatched to different consumer industries through different public Railway sidings. The public Railway sidings are located at a far distance, the nearest being Barsuan in Sundergarh district at a distance of 16 km from the mine. It is not feasible to construct conveyor belt system for transport of iron ore from the mine to different Railway sidings due to problem in acquisition of private (including ST land), involvement of forest land, passing through other leases in a criss-cross way & hilly terrain. There is no dedicated public railway siding to handle the entire ore despatch from the mine to different destinations. The railways place rakes as per the availability to different sidings. Further the same railway siding is used by other lessees also. A proposed railway line is being planned by railway authorities from Barsuan to Koira to cater the necessities of iron ore transportation from different leases of Koira sector. The lessee of Jumka Pathiriposhi Pahar Iron ore Block is already under process to develop a dedicated Asphalt/concrete road connecting mines to Koira-Patmunda road at Belkudar village. This road will be used for transportation of Mineral to different end user plants via different public railway sidings. The proposed road will be connected to the upcoming Barsuan-Koira Railway line.	The lessee of Jumka Pathiriposhi Pahar Iron ore Block is already under process to develop a dedicated Asphalt/concrete road connecting mines to Koira-Patmunda road at Belkudar village. This road will be used for transportation of Mineral to different end user plants via different public railway sidings. The proposed road will be connected to the upcoming Barsuan-Koira Railway line.
c)	Detailed layout for proposed alternative road from mines to NH need to be furnished and the forest road should not be used.	Proposed layout plan is enclosed as <b>Annexure-1.</b>	----
d)	Submit a layout plan showing parking plaza, distance of primary school and nearest habitation from mine lease boundary.	Proposed layout plan is enclosed as <b>Annexure-2.</b>	----
e)	Detailed report on pollution control measures and safety measures due to blasting and proposed road plan for movement of passers-by.	<b>Safety and Pollution Control Measures during Drilling and Blasting for people and property around.</b> Drilling and blasting being a core part of the ore winning process, hence, remains a priority area for safety of people and machineries. The major causes of dust and pollution due to blasting depend on type of explosives used and the manner in which they are charged in the hole determines the amount of fines and dust generated during blasting. Similarly blasting parameters such as burden, spacing, subgrade and delay timing have effects	----

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>on the generation of fines &amp; dust. Type of rock and stemming material, including the amount used in the hole; also play an important role in the generation and rising of dust into the atmosphere.</p> <p>Therefore, efficient blasting with reduced environmental effects requires suitable planning, good blast design, accurate drilling, the correct choice of explosives and initiation system and methods, adequate supervision etc. will be ensured. For the same, standard operating procedure with Dos and DON'Ts will be prepared and practiced to obviate any kind of incidents during this process.</p> <p>We will ensure that no major deviations from the standard process which may lead to inadequate blasting and fragmentation and may create multiple HSE hazards. A proper drill and blast plan of the face shall be prepared by drilling engineer which will include the face dimension, number of holes, spacing, burden, hole depth and re-drill percentage. This plan would be signed by the Blasting engineer, the blasting in-charge &amp; the mine manager on daily basis and will be kept as a record for further analysis.</p> <p>Therefore, the following precautionary measures will be taken comprehensively for safety of people involved in drilling and blasting activity as well safety plan of passers-by and to control pollutions, blast induced hazards by drilling and blasting activities.</p> <ul style="list-style-type: none"> <li>• During drilling activity, adequate PPEs are worn by the driller and helper, ensuring the machinery is free from any problems and its rod is in proper shape. Drilling crews will use an approved dust mask to avoid inhaling excessive amount of dust formed whilst drilling.</li> <li>• To minimize dust pollution during drilling, wet drilling at all times will be ensured.</li> <li>• It will be ensured that lubricant oil and other consumables of the drill do not spill over the bench and contaminate the environment.</li> <li>• Explosive charge and initiation and the subsequent blasting will be carried out in such a way that minimum noise, air over pressure and vibration is generated.</li> <li>• Blasting will be carried out in such a way that there is minimum dust generation and QA/QC with respect to explosive will be ensured so that noxious fumes or blasting fumes are minimized.</li> <li>• We will be using NONEL (nonelectrical initiation of blast holes) firing system with usage of delay detonators both trunk line and down the hole to reduce Charge/Delay. By this system, the blast induced ground vibration and noise will be reduced drastically. By these blasting techniques</li> </ul>	

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		better rock fragmentation will be achieved and excessive fine generation will be avoided which leads dust pollution majorly.	
f)	Submit details of truck movements.	<p>Details of Truck movement from Jumka Pathiriposi Iron Ore Block to different railway siding Kamando and other Steel Plants of the Company.</p> <ol style="list-style-type: none"> <li>1. Total proposed production per year =3.35 million tonne or 3350000MT</li> <li>2. Total working days per year= 300</li> <li>3. Total production per day = 3350000 / 300 = 11167.00 MT/day.</li> <li>4. Proposed capacity of transportation Truck/dumper = 35 MT</li> <li>5. Total no. of transportation truck/dumpers per day =319 nos.</li> <li>6. Total working hour per day=20 hours.</li> <li>7. Total nos. of transportation truck/dumper per hour=319/20=15.95 or 16 nos.</li> </ol> <p>Thus, 16x2=32 nos. of trucks per hour for up &amp; down movement will be engaged.</p>	----
7.	Submit Traffic Study Report vetted by reputed institute.	Traffic study report as prepared by IIT, Kharagpur is enclosed as <b>Annexure-3</b> .	A traffic study report has been prepared by IIT, Kharagpur suggesting a change will occur in LOS during the transport of iron ore from the mine through various segments.
8.	Relook into the matter of loss of forest products issue taken up during Public Hearing.	At present the local villagers are partly dependent on forest goods like fire woods & forest produce to earn their livelihood. The lessee is already under process to divert the total forest area of the lease hold for mining operation & allied activities. After the Stage-II forest clearance of the lease hold, phase wise tree felling of the area will be done as per the approved mining plan with necessary permission from the forest department to commence the mining operation. The local villagers will be engaged in mining and allied activities as per their capabilities. Then local villagers will not be dependent at all on any type of forest products. Further the CSR initiatives of the lessee will train the local villagers, to earn their livelihood through other activities like agriculture, poultry, tailoring etc.	The compliance report by the proponent mentions that the process to divert the total forest area of the lease hold for mining operation & allied activities are under process and there will be phase wise tree felling as per the approved mining plan with necessary permission from

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
			the forest department to commence the mining operation.
9.	Provide the timeline for commitments made by project proponent during Public Hearing.	Enclosed as <b>Annexure-4</b>	Annexure 4 is attached showing the timelines for commitments made by project proponent during Public Hearing will be done after commencement of mining operation within 5 years
10.	Submit the documents regarding status of Forest Clearance.	The proposal for Forest clearance has been forwarded by State Govt. of Odisha (FE&CC Dept.) to MoEF&CC, Govt. of India (FC Division) on dated 03.03.2023 vide letter No.4132/F&ECC. Copy of the letter is enclosed as <b>Annexure-5</b> .	----
11.	Submit compliance to NEERI recommendations.	Enclosed as <b>Annexure-6</b> .	Compliance attached in accordance with NEERI recommendations as Annexure-6
12.	Detailed report on Rain water Harvesting proposed along with drainage plan.	Enclosed as <b>Annexure-7</b>	A project report on proposed Rain water Harvesting plan is attached as Annexure-7. Further the project proponent has mentioned that drainage pattern of the core area will change gradually during the progress of mining operation.

Considering the information furnished and the presentation made by the consultant M/s Centre for Envotech and Management Consultancy Pvt Ltd. (CEMC), Bhubaneshwar along with the project proponent, the SEAC recommended for grant of Environmental Clearance with stipulated conditions as per **Annexure – C** and following specific conditions. However, the Environmental

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Clearance shall be issued by the SEIAA, Odisha after receipt of Stage-I Forest Clearance from the proponent as stipulated in MoEF&CC, Govt. of India office memorandum no. J-11013/41/2006-IA.II(I), dated 09.09.2011 and office memorandum no. J-11013/41/2006-IA.II(I), dated 18th May, 2012.

- a) The proponent shall utilize different grades of iron ore (ROM) and waste generated according to IBM guidelines.
- b) The proponent shall carryout compensatory afforestation for the project site.
- c) The proponent shall adopt additional measures for dust suppression.
- d) Conversion of Gochar / Grazing land involved in lease area shall be made before going for mining activity.
- e) Rainwater harvesting structures shall be implemented.
- f) The lessee shall take adequate safeguard measures to ensure the free flow of the 3 nearby tributaries/nallahs.
- g) The EC is limited to secondary crushing and screening operations (dry process) as per approved mining plan. Under no circumstances, the lessee shall carry out any beneficiation activity (wet process) of low-grade ore.
- h) All the ores (45-55) and +55 grades shall be used and ores & rejects shall be transported as per approved mining plan for their use. Only temporary stacks shall be operated. The mine shall avoid segregation & generation of fines and flow of silt during rainy session.
- i) Green processes like Controlled drilling, Environment friendly blasting, safe transportation and conveying, silt-management shall be followed as per guidelines.
- j) NEERI recommendations particularly related to SOTM shall be complied at the earliest possible and an undertaking to that effect indicating timeline shall be submitted before start of operations.**

#### **ITEM NO. 05**

#### **PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR GADA BEGUNIAPADA SAND QUARRY (DAYA RIVER), OVER AN AREA OF 12.50 ACRE OR 5.06 HA. AT MOUZA - GADA BEGUNIAPADA OF TAHASIL DELANGA IN DISTRICT OF PURI OF SRI TAPAN KUMAR RAY – EC**

1. This proposal is for environmental clearance for Gada Beguniapada Sand Quarry on Daya River, over an area of 12.50 Acre or 5.06 ha. at Mouza - Gada Beguniapada of Tahasil - Delanga in district of Puri, Odisha of Sri Tapan Kumar Ray.
2. **Category:** As per EIA notification 2006 and subsequent amendments, the project is coming under B1 Category Schedule 1 (a) - Mining of Minerals.
3. The Terms of Reference (TOR) has been issued by SEIAA, Odisha vide File No.60755/93-MINB1/02-2021 dated 11.05.2021.
4. The Tahasildar of Delanga Tahasil issued Form F, vide letter no. 3705 on dated 12.10.2020 to the successful bidder of the sairat source, Sri Tapan Kumar Ray for the period of five years on acceptance of terms and conditions prescribed therein.

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5. The Reference of Identified Source in DSR - Page No. 2 of Sl. 18 of Annexure II (DSR Puri).
6. There is no other sand mines exist within 500m radius of the present lease area.
7. The mining plan for the project has been approved by Authorised Officer/Deputy Director of Geology, Directorate of Geology, Bhu-Bigyan Bhawan, Bhubaneswar, Odisha vide memo no. 4307 on dated 25.06.2020.
8. **Public hearing details:** The Public Hearing in respect of Environment Impact Assessment for Gada Begunia Sand Quarry was conducted on 10.10.2022 at 11.00 A.M at Gada Begunia playground near market building of Delanga Tahasil of Puri District. The issues raised at the public hearing meeting are: Tree plantation along river bank, overexploitation of sand, erosion of the river bank and eventual flooding, road widening and repair, road safety and traffic, Local Employment and road dust and sand pile up on the road. In compliance to public hearing, the Project proponent has prepared a time bound action plan and a total implementation cost of 5.35 Lakhs towards it.
9. **Location and connectivity:** The project Gada Beguniapada Sand Quarry on river Daya spread over an area of 5.06 Ha. or 12.50 Acre is in Khata no.319, Plot no-1, Kisam: Nadi located in village Gada Beguniapada, under Delanga Tahasil of Puri District, Odisha. The project is located in survey of India toposheet no. 73H/12 and bounded between the latitudes of 20°05'09.62" N to 20°05'23.88" N and longitudes of 85°40'17.40" E to 85°45'42.72" E. Nearest road is village road which is located at 100m from the lease area. The site is well connected to NH-5 at 10Km and SH-13 at a distance of 8kms. Nearest railway station is Kaipadar railway Station which is located at distance of 3.9 Km from the lease area. Nearest airport is Biju Patnaik International Airport, Bhubaneswar at a distance of 22.4Km from the mining lease area. Delanga Road is passing through lease area. The road bridge on Daya river of Delanga road is passing through the lease area. There is no human settlement within the lease area.
10. **Topography:** The Sand bed is on the river Daya. The Gada Beguniapada sand bed deposit represents a gently sloping to almost flat terrain. The highest mRL is of 8m. The general slope is towards south. Vegetation is scanty with small bushes existing in the auction hold area. There is no human settlement within the area.
11. The mining operation will be carried out in the upstream of the bridge within the lease area and there will be no mining activity in the downstream. As per sand guidelines 2020, the safety distance of mining lease area should be minimum 250m in the upstream and 500m in the downstream of the bridge/ public civil structure. So the safety zone has been increased based on the guideline.
12. After exclusion of safety zone for Bridge, the revised production is proposed as 4799 Cu.m against approved production of 5843 Cum per annum.
13. **Replenishment Study Report** - Replenishment survey for the sand quarry was conducted on Dtd.11.05.2021 to 12.05.2021 as pre-monsoon and on Dtd.9.11.2021 to 10.11.2021 as post-monsoon season. The ground survey of Gada Beguniapada quarry was undertaken by the Survey team of Geo Consultant Pvt. Ltd. Bhubaneswar. One base point was fixed with the help of hand-held GPS and the coordinates and the RL of the base point was assigned for future reference. Ground survey by Total Station on 10 numbers of cross sections for pre monsoon and 23 nos. of cross sections for post monsoon and 1 numbers of longitudinal sections.

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14. It is observed that there is an average increase of river bed RL by 0.40 m due to sediment deposition during the monsoon season. So replenished quantity of sand available in the study period within the sand bed = 22500m<sup>2</sup> x 0.40m = 9000m<sup>3</sup>. The lessee will extract 5843cu.m of sand at their peak level of extraction within 180 days of dry period which is very less than the annual replenished quantity of 9000cu.m.
15. So, the quantity of sand extraction is about 64.92% of the replenished sand in the lease area. The sand depth in the area is 1.10m and the mining operation in the area will go up to maximum depth of 1.00 m.
16. **Reserves:** The total geological reserve is 101172 Cum and the mineable reserve of the river bed sand is worked out to be 23995 Cum after excluding revised safety zone as mentioned in presentation.
17. **Mining method and production:** The method of excavation of sand from Gada Beguniapada Sand quarry will be manual open cast mining. The mode of the deposit, geomorphology of the area and its hydrological condition are some of the factors that favours the open cast method of mining. Mining will be done with manual excavation & loading into trucks/ tractors and transported from Daya River sand bed to the users/destination through trucks/tractors. The project intends for excavation maximum of 5843 cu.m per annum of sand from the lease area and total production is 29215cum as per Approved Mining Plan. Now the PP had revised the production after excluding the safety zone to 4799cum/annum and total production to 23995cum as mentioned in presentation.
18. **Water requirement:** Water requirement for the project will be 3 KLD. For drinking & domestic purpose, water requirement will be 1 KLD, water requirement for green belt development and dust suppression will be 2 KLD. Ground water will be used for drinking and domestic purpose whereas surface water will be used for green belt development and dust suppression.
19. **Land use of mining lease:** The mining lease area falls within the river bed of Daya River, below the high flood level. It therefore cannot be put to any other use. The kism of land under the lease is Nadi. Before the lease was auctioned it was part of the river course. During plan period the probable mined out land will be 2.43 ha.
20. **Greenbelt/Plantation:** There is a proposal of plantation within 600 metre of SE side & 900 metre of SW side of the quarry with the gap of 3 metre, with total area of 4500 Sq.m to be planted with 1100 saplings as mentioned in presentation.
21. Baseline study was conducted during the period November 2021 to January 2022. Following observations were found w.r.t to air quality, water quality and soil quality monitoring.

PERIOD	November 2021 to January 2022	Applicable Standards
AAQ PARAMETERS AT 6 LOCATIONS	PM <sub>2.5</sub> – 19.2 to 28.0 µg/cu.m	60 µg/cu.m
	PM <sub>10</sub> – 41.8 to 56.9 µg/cu.m	100 µg/cu.m
	SO <sub>2</sub> – 5.7 to 9.9 µg/cu.m	80 µg/cu.m
	Nox – 14.7 to 19.3 µg/cu.m	80 µg/cu.m
	CO – 0.346 to 0.540 mg/cu.m	4 mg/cu.m
Ground water Quality	pH – 7.0 to 8.2	6.5 to 8.5

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PERIOD	November 2021 to January 2022	Applicable Standards
at 5 Locations	Total Hardness – 44 to 192 mg/l	600 mg/l
	Chloride - 11.5 to 36.4 mg/l	250 mg/l
	Fluorides – <0.05 to 0.80 mg/l	1.5 mg/l
	TDS – 68 to 300 mg/l	1000 mg/l
	Heavy metals : BDL (Cd <0.001, As <0.01, Hg<0.0001) mg/l Detection limits of analysis method	Heavy metals: (Cd <0.003, As <0.01, Hg<0.001) mg/l
Surface water at 5 locations	pH – 6.6 to 8.	
	Dissolved Oxygen – 6.2 to 6.9 mg/l	
	Biochemical Oxygen Demand – 1.1 to 2.3 mg/l	
	Chemical Oxygen demand – 5 to 15 mg/l	
Noise at 5 locations	Day (dBA Leq) 31 to 48	55
	Night (dBA Leq) - 26 to 35	45
Soil Quality at 6 locations	pH –5.1 to 6.4, Potassium –81 to 390 mg/ kg, Phosphorous –24.9 to 46.3 mg/ kg, Total Organic Carbon % –0.35 to 0.81, Electrical Conductivity- 41 to 302 µmho/Cm	

22. **Manpower:** Total manpower requirement for the project is 09 nos.

23. **Project cost:** Total cost of the project will be Rs. 10,00,000. The EMP cost proposed for the project will be 3.0 lakhs per annum.

26. The proponent along with the consultant **M/s Kalyani Laboratories Pvt. Ltd**, Bhubaneswar, made a detailed presentation before the SEAC on 13.01.2023. The SEAC decided to take decision on the proposal after receipt of certain 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
1.	Revised checklist indicating distance from bridge. Whether the location of the mines is confirming to distance criteria from the Bridge as per Enforcement Monitoring Guideline for Sand Mining (EMGSM)- 2020.	Revised signed checklist attached as <b>Annexure-I</b> .	The checklist indicates that bridge is within the lease area. Exact distance from bridge is not given. Annexure I is attached.
2.	Grid layout of replenishment points taken with dimension and direction.	Details of grid layout of replacement point attached as <b>Annexure-II</b> .	Grid layout plan of replenishment points is attached.
3.	Details of Plantation cost and involvement of villagers for protection of plantation in riverbank.	There is Proposal of plantation of 300 saplings bearing fruit trees (mango, jamun, guava, custard apple, jackfruit) near waste area of local village and within school campus. The cost allocated for plantation is Rs. 60,000 @ Rs. 200/- per saplings.	Proposal of plantation within 600 metre of SE side & 900 metre of SW side of the quarry with the gap of 3 metre with total 4500 Sq.m area to be planted with

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
			1100 saplings. Cost allocated for plantation development in river bank is 1 lakh per annum as per EMP cost break up.
4.	A Revised EMP budget, production capacity and greenbelt were noticed during presentation which doesn't match with submitted EIA report. This shall be clarified.	As the mining plan has been prepared before the applicability of Sand guideline 2020, a safety zone of 200m was left as no mining zone in the approved mining plan. However, as per sand guideline 2020, the safety distance of mining lease area should be minimum 250m in the upstream and 500m in the downstream of the bridge/ public civil structure. So the safety zone has been increased based on the guideline. The mining operation will be carried out in the upstream of the bridge within the lease area and there will be no mining activity in the downstream. Based on this the geological reserve and the production has been revised and decreased than the approved quantity. Details has been given in <b>Annexure III</b> . Details of Final Green belt plan and EMP budget has been attached as <b>Annexure IV</b> .	Revised Environment Protection Measures of Rs.4.0 lakhs has been submitted.

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

- a) Amended EIA Notification dated 25th July, 2018, Guidelines for sustainable sand mining, 2016 and Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India shall be adhered to in execution of Mining.
- b) Extraction should be limited to annual replenished quantity in workable area only subject to exclusion of safety zone as per Guidelines for sustainable sand mining, 2016 and Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India.**
- c) Regular replenishment study to be conducted and report to be submitted.
- d) Provision of Bio-toilet shall be made at the site.
- e) Avenue plantation and plantation on both sides of the haulage road in consultation with/ on the advice of concerned Forest Department, Government of Odisha & W.R. Department Government of Odisha as well.

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

**ITEM NO. 06**

**PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR “DIAMOND CITY CUTTACK” RESIDENTIAL APARTMENT ALONG WITH COMMERCIAL BUILDING PROJECT LOCATED AT PLOT NO2340, 2340/3563, 2343, 2333/5410, 2343/5411, 2344, 2334/6142, 2346/5962, 2347, 2347/5956, 2348, 2248/5496, 2248/5497 OVER BUILT-UP AREA OF 54514.323 SQM LOCATED IN THE VILLAGE: PRATAPNAGARI, NUAGADA, DISTRICT: CUTTACK OF M/S. EASTERN ESTATE CONSTRUCTION AND DEVELOPERS PVT. LTD OF SRI SANJEEV KUMAR - EC**

1. The proposal is for “Diamond City Cuttack” Residential Apartment along with Commercial Building Project Located at Plot No2340, 2340/3563, 2343, 2333/5410, 2343/5411, 2344, 2334/6142, 2346/5962, 2347, 2347/5956, 2348, 2248/5496, 2248/5497 over built-up area of 54514.323 sqm located in the Village: Pratapnagari, Nuagada, District: Cuttack of M/s. Eastern Estate Construction and Developers Pvt. Ltd of Sri Sanjeev Kumar.
2. The project falls under category “B” or activity 8 (a) - Building & Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. M/s Eastern Estate Construction & Developers Pvt. Ltd. for Residential Project “Diamond City, Cuttack” on plot area 10,039.85 m<sup>2</sup> /2.48 acres located at Village: Pratapnagari, Nuagada, District: Cuttack, Odisha and total built up area – 54,513.32 m<sup>2</sup>. A part of project was approved for the built-up area i.e. 16,161.56 sq.m vide letter PLN-BDP-420/15 and construction was started based on that, which was less than 20,000 sq.m. Now the planning has been revised and the estimated Built-up area is 54,513.32 sq.m (including all FAR, Non-FAR and other services), which is more than 20,000 sq.m area which attracts the EIA notification 2006 and its amendments thereof.
4. **Location and Connectivity** – The proposed site is located at Village: Pratapnagari, Nuagada, District: Cuttack, Odisha. The Geographical co-ordinate of the project site are Latitude: 20°23'31.26"N & Longitude: 85°53'9.06"E. The site is very near to AH 45 (NH 16 Bhubaneswar Road) is approx. 0.06 m in SW direction. Ring Road is approx. 1.92 km in ENE direction. The nearest railway station is New Bhubaneswar Railway Station approx. 5.337 km in West direction from the project site. Biju Patnaik International Airport is at a distance of approx. 17.284 km in SW direction from the project site. Chandka-Dampara Wild Life Sanctuary is about 6.9 km in NW direction. Nandankanan Wild Life Sanctuary is about 5.9 km in W direction.
5. The site is coming under Cuttack Municipal Corporation.
6. The plot area of the project site is 10039.85 m<sup>2</sup> (2.48 acres) and estimated built-up area of the project is 54514.323 m<sup>2</sup>. Total population of project is 2,425 persons (including Residents + Staff + Visitors).
7. The project facilities will develop 388 Dwelling Units which includes three blocks (2B+S+12), one block (B+S+8), Commercial (S+5) & Club House (2B+2) & other services and amenities.
8. The building details of the Project:

S. No.	Particulars	Details
i)	Total Plot Area (Acres)	2.48
ii)	Total Plot Area (Sq.m)	10039.85

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iii)	Total FAR Area (Including Services)	40346.04
iv)	Achieved FAR	4.0
v)	Ground Coverage (Permissible) 40% (sq.m)	4015.94
vi)	Achieved Coverage (Permissible) 38.50% (sq.m)	3865.34
vii)	Non Far (Combined Stilt and Basement built-up area )	12168.261
viii)	Miscellaneous Area (Guard Room, STP, UGT etc.)	2000
ix)	<b>Total Built-up Area (3+8+9)</b>	<b>54514.323</b>
x)	Green belt Area (sqm) (20% of total plot area)	2007.97
xi)	Paved Open Green & Avenue Green area (sq.m) (13% of total plot area)	1305.18
xii)	Road and Open Area	1857.38
xiii)	No. of DU	388.0
xiv)	Total Project Cost (Land + Development Cost)	75 Crores
xv)	No. of DG sets for Backup (KVA)	1x62.5+2x400
xvi)	Total Power Requirement KVA	2300.0
xvii)	Maximum Height of Building (m)	46

9. **Water Requirement** – The total water requirement will be 280 KLD. The fresh water requirement will be approx. 180.5 KLD, which will be provided by Bhubaneswar Municipal Corporation. The project will generate approx. 235 KLD of wastewater. The wastewater will be treated in onsite STP of 280 KLD capacity. Treated wastewater will be re-used for flushing, landscaping, floor & car washing. Surplus treated effluent will be discharged to external sewer with permission i.e.11.5KLD in non monsoon period.

10. **Total no. of Rainwater Harvesting pits** – 10 nos for the project.

11. **Power Requirement** - The total power requirement for the Residential Project is 2300 kVA, The Source of Power supply will be from (Odisha State Electricity Board). There will be provision of 3 no. of DG sets of total capacity 862.5 KVA (1x62.5+ 2x400 KVA each) for power back up. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion.

12. **Solid waste Management** - The solid waste generated from the project shall be approx. 591 kg per day. The solid waste will be collected then segregated at source. Adequate number of coloured bins (green, blue & dark grey) separate for biodegradable and non - biodegradable are proposed to be provided at the strategic locations within the site. STP sludge is proposed to be used for horticultural purpose as manure. Landscaping waste/ Biodegradable waste will be composted by Organic Waste Converter 100 sq.m area has been proposed for OWC. Spent oil from DG sets will be sold to CPCB authorised recyclers.

S. No.	Category	Kg per capita per day	Waste generated (kg/day)
i)	Residents	1940 @ 0.5 kg/day	<b>970</b>
ii)	Staff	107 @ 0.25 kg / day	<b>26.75</b>
iii)	Visitor	281 @ 0.15 kg /day	<b>42.6</b>
iv)	Landscape waste	0.8184 @ 0.2 kg/acres	<b>0.16</b>
<b>Total Solid Waste Generated</b>			<b>1039.35 kg/day</b>

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Note: Sludge from STP: 14.68 Kg/day, which will be dried and used as Manure in landscaping.  
 (Sludge Calculations = (Inlet BOD- Outlet BOD) x WW x 0.25  
 (= (280 – 30) x 235 x 0.25 = 14.68 Kg/day)

- 13. Green Belt** – Total Green area including paved green / open area measures 3312 m<sup>2</sup> i.e. 33 % of the total area. In which peripheral green belt including external and internal periphery area is 2007.97 (20 % total area), Open Paved Green, Terrace Green and Vertical green area is 1003.985 (10 % total area) and Lawn Green Area 301.19 (3% of total area). Total no. of trees proposed = 132 Nos. **Revised Green Belt area** is submitted in ADS i.e.2089.76sq.mt.consisting of 1520sq.mt is Peripheral internal green area and 559.6sq.mt is Avenue plantation as shown in layout.
- 14. Parking Details** – Total Parking Area Provided - 10694.10 Sq. Mt / 334 ECS. **Revised Parking area** is submitted in ADS i.e. 13109sq.mt. and ECS - 396, 2W -156, Bicycle-120.
- 15. Rain Water harvested** through 10 nos. of Rain Water recharging pits.
- 16. Firefighting Installations:** Firefighting system will be installed as per recommendation of the Firefighting Officer, Odisha and as per the provisions given in Part-IV of National Building Code of India -2016 and relevant BIS specifications.
17. The project cost is 75 crores and Environmental Monitoring Programme Cost – 241 lakhs, which is approx. 3 % of total project cost.
18. The project proponent along with the consultant **M/s OCEAO-ENVIRO Management Solutions (India) Pvt. Ltd., Ghaziabad, U.P - 201012** made a detailed presentation on the proposal on 03.08.2022.
19. The SEAC in its meeting held on 03.08.2022 decided to take decision on the proposal after receipt of certain information / documents from the proponent followed by site visit of Sub-Committee of SEAC. 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
i)	Structural Stability certificate from appropriate authority as per CDA guidelines be submitted and vetted from reputed institute with reference to approved original plan and the revised plan approved.	Structural drawings are being vetted by BIT Engineering College, Sindri, and Government of Jharkhand as per CDA guidelines. The final drawings are under process and will submit in the due course of time. Affidavit regarding the same is attached with the reply. PO and Receipt is attached as an <b>Annexure (a)</b> .
ii)	Separate two entry and exit gates to be made for residents and commercial.	Commercial area is planned for the person is adding inside the residential project. Although for access control, separate entry/exit gates for commercial with boom barriers are provided. Parking plan with marking of separate entry and exit gates for residents and commercials is attached as <b>Annexure (b)</b> .
iii)	Certificate from Chartered Civil Engineer how much construction has been made. Construction status with reference to original plan and revised plan.	Civil Engineer certificate is attached as an <b>Annexure C</b> .

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
iv)	Comparative statement in terms of physical features in original plan and present plan.	Comparative area statement in terms of all the salient features is attached as <b>Annexure (d)</b> .
v)	Parking in terms of space and ECS for 4 wheelers, 2 wheelers including bicycles be calculated separately for dwellers & visitors (floating population) and also for commercial complex the norm as well and showing it in the layout map & be submitted since provision of 356 ECS against 388 dwelling units proposed.	Detailed parking calculation and parking plan is attached as <b>Annexure (e)</b> .
vi)	Detailed calculation of Rain Water Harvesting and Layout showing Rainwater Harvesting pits.	Detailed Rain water harvesting calculations and RWH plan is attached as <b>Annexure (f)</b> .
vii)	Layout map showing the treated water fallout to nearest drain and its distance.	The Distance from our project site to nearest public drain is 30m which falls in the service road of NH-16 on our own cost shall be developed by PP. Drainage Map showing terminal discharge is attached as <b>Annexure (g)</b> .
viii)	Layout of internal drainage map and their fallout to external public drain.	Map showing internal drainage and their fallout to external public drain is located at ROW of service road of NH-16 is attached as <b>Annexure (g)</b> .
ix)	Copy of permission of the concerned authority of the drain / sewer to discharge the treated water from project to the nearby drain.	NOC from CDA regarding the discharge of the treated water is attached as <b>Annexure (h)</b> .
x)	Reduce discharge of treated water to drain.	Revised water balance diagram is attached as <b>Annexure (i)</b> .
xi)	A detailed write up with justification as to why this case will not be treated as violation case.	Justification for being non violation case is attached as <b>Annexure (j)</b> .
xii)	Traffic study be undertaken at intersecting points with NH from a reputed Institute or vetted by a reputed Institute be submitted.	Traffic study duly vetted by School of Civil Engineering, KIIT Deemed to be University, Bhubaneswar is attached as an <b>Annexure (k)</b> .
xiii)	Impact/ effect of change in ground coverage due to revised plan and to be shown in the layout drawing with dimension.	Comparing Area Statement comparing the ground coverage is attached as <b>Annexure (l)</b> . According to Old Drawing, Ground coverage is 35% out of 40% of the Total Plot area. There is no significant change in the ground coverage.
xiv)	A comparative statement of original plan vis- a - vis the revised plan with super imposition of the revised one on the original one be submitted.	Comparative area statement attached as annexure (d) and Superimposed plan is attached as <b>Annexure (m)</b> .
xv)	Quality of underground water	Test report is attached as <b>Annexure (n)</b> .
xvi)	To explore whether Puri canal be source of domestic water since it is at 340 mtrs with provision of WTP.	There is no provision of supply from the Puri canal supply. Henceforth, we have applied to CGWA for fresh water supply dated on 10.11.2021 till the Cuttack municipal Corporation does not start.

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		Application of the same is attached as <b>Annexure (o)</b> .
xvii)	The PP to submit sabik RoR with kissam, Hal RoR with kissam for the project area to rule out the investment of Forest/DLC land.	Gharbari documents are attached as <b>Annexure (p)</b> .
xviii)	To submit the Fire Safety recommendation of the State Government Fire wing.	Fire recommendation is attached as <b>Annexure (q)</b> .
xix)	To submit the plan for Ventilation, lightning and air conditioning of lift from lowest basement floor to terrace floor.	Ventilation, lightning and air conditioning plan for lift from lowest basement floor to terrace floor is attached as an <b>Annexure (r)</b> .
xx)	Provision of solar power for the project.	Solar water heater and solar street lights are proposed all over the project. Calculated Quantum of the project is attached as <b>Annexure (s)</b> .

20. The proposed site was visited by the sub-committee of SEAC on 14.11.2022. Following are the observations of the sub-committee and proponent needs to submit relevant documents as below:

- i. Structural Stability certificate vetted from reputed institute.
- ii. Separate two entry and exit for four wheelers, 2 wheelers including bicycles for dwellers & visitors and also for commercial complex.
- iii. Detailed calculation of Rain Water Harvesting and layout showing Rainwater Harvesting pits.
- iv. Separate Parking for residents, guests and commercial
- v. Lay out map for entire drainage system for planned four blocks including commercial unit
- vi. Copy of permission of the concerned authority of the drain / sewer to discharge the treated water from project to the nearby drain.
- vii. Traffic study be undertaken at intersecting points with NH from a reputed Institute or vetted by a reputed Institute be submitted.
- viii. Firefighting plan to be submitted along with fire safety recommendation.
- ix. Details of solar power calculation, generation and use in % of total power.
- x. Permission for drawing ground water from concerned authorities.
- xi. Location, Source and utilisation/ disposal of STP effluents.
- xii. Details of solar power calculation, generation and use in % of total power
- xiii. Details of Land documents, Kissam, conversion, etc., if any.
- xiv. Stack height vs building height may be furnished.
- xv. Layout for green belt.

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21. The proponent has already submitted most of the information and documents as desired by the sub-committee of SEAC. However, they need to submit the following information as desired by the sub-committee of SEAC.

- a) Separate Parking for residents, guests and commercial
- b) Permission for drawing ground water from concerned authorities.
- c) Stack height of DG Set vs building height may be furnished.
- d) Layout for green belt.

22. The Committee opined the following:

- i) The proponent has clarified that a part of project was approved for the built-up area i.e. 16,161.56 sq.m vide letter PLN-BDP-420/15 and construction was started based on that, which was less than 20,000 sq.m. The current construction is 1673.84 sq.m till date which is based upon old drawing and does not exceed the permissible limit approved. Now the building plan has been revised and approved by CMC vide letter no.1130 (PLG)BP/CMC dated 13.06.2022 over plot area 2.48 acre with the estimated built-up area 54,513.32 sq.m (including all FAR, Non-FAR and other services), which is more than 20,000 sq.m area which attracts the EIA notification 2006 and its amendments thereof. The project proponent claims that it will not be treated as a violation case as they have started constructed activity for the project having built-up area less than 20,000 m<sup>2</sup> as per the building plan approved for built-up area of 16,161.56 sq.m. However, they have not submitted copy of building plan approval letter for built-up area of 16,161.56 sq.m. Moreover, justification given by the proponent is silent about whether the proposed project of built-up area 54,513.32 sq.m will be constructed over the foundation made by the project for the built-up area of 16,161.56 sq.m. If, this will be the fact, than the project proponent had taken building plan approval for built-up area less than 20,000 m<sup>2</sup> just to avoid Environmental Clearance when the actual built-up area 20,000 m<sup>2</sup>. Hence, the project proponent needs to submit certificate from the CDA that the proposed project of built-up area 54,513.32 sq.m will not be constructed over the foundation made by the project for the built-up area of 16,161.56 sq.m and this will be separate project within the same premises.

23. The SEAC in its meeting dated 13.01.2023 decided to take decision on the proposal after receipt of 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
1.	Separate Parking for residents, guests and commercial	Parking breakup with its drawings are attached as an <b>Annexure I</b> .	Parking plan along with Parking area calculation is attached as

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
			Annexure-1
2.	Permission for drawing ground water from concerned authorities.	Permission for drawing ground water from CGWA has already been applied and it is in advanced stage under process which is likely to be obtained within 10-15 days. Also, we had submitted the ground water abstraction charges for withdrawing the ground water to CGWA, details of abstraction charges is attached as an <b>Annexure II</b> .	Application for Issue of NOC to Abstract Ground Water (NOCAP) is in process and details of abstraction charges is attached.
3.	Stack height of DG Set vs building height may be furnished.	Stack height if DG Set will be 6 m above the tallest building Total height of the stack = Height of the building up to terrace level of the tallest tower + Height of the stack above roof level. Our tallest building height = 39.9 m (up to terrace level) <b>Hence, Total stack height of DG set = 39.9 m +6 m = 45.9 m</b>	Complied.
4.	Layout for green belt.	Total Green belt area is 2,079.76 sqm which is 20.66% of the total Plot area i.e 10,067.37 sq.m. The Layout for green belt is attached as an <b>Annexure III</b> .	Greenbelt plan is attached as Annexure-III indicating break up of total green belt area of 2089.76 sqmt out of 10067.37 sqmt.
5.	Copy of building plan approval letter for built-up area of 16,161.56 sq.m.	Copy of building plan approval letter for built-up area of 16,161.56 sq.m is attached as an <b>Annexure IV</b> .	Building plan approval letter from CDA is attached as Annexure IV.
6.	Certificate from the CDA that the proposed project of built-up area 54,513.32 sq.m will not be constructed over the foundation made by the project for the built-up area of 16,161.56 sq.m and proposed project will be a separate project within the same premises.	Note is attached as <b>Annexure V</b> .	Chronological history/background for the residential project "Diamond City" Cuttack is attached as Annexure V. It concludes from the note that the planning of the project was revised, the construction has been stopped and revised drawing were submitted for obtaining building permission and Environment Clearance for plot

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
			<p>area 2.48 acres and built-up area of 54,513.3 sq.m.</p> <p><b>Under Annexure V the documents mentioned as Appendix c, d &amp; e are blank pages i.e. NOC from Prachi Division regarding Culvert Completion, Affidavit, vetted structural safety stability.</b></p>

24. The SEAC observed that the **Annexures** as mentioned in the ADS have not been furnished.

After detailed discussion, the SEAC decided to take decision on the proposal after the proponent upload the ADS once again along with all the **Annexures** as mentioned in ADS in addition to the following compliances:

- a) The green belt is about 15% and including avenue plantation it is 20%, needs revision.
- b) Who is the owner of the land space between culvert and gate needs to be clarified and required documents in support of its use to be provided.
- c) The proposal looks like a violation case as the PP has already constructed as per previous approval and on the same building, they are proposing to increase the floors after FAR etc. were revised by CDA and revised plan made. This practice of approval of revised plans after construction needs to be avoided by building authority which is not done. Thus, structural certificate responsibility has to be with the building plan approving authority to consider its safety and stability.

#### **ITEM NO. 07**

#### **PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF SIKHARDEVI RIVER SAND QUARRY OVER AN AREA OF 31.00ACRE OR 12.545HA. AT VILLAGE - SIKHAR, TAHASIL - NAUGAON, DISTRICT - JAGATSINGHPUR OF TAHASILDAR, NAUGAON- EC**

1. This proposal is for environmental clearance of Sikhardevi river sand quarry over an area of 31.00acre or 12.545ha. at village - Sikhar, Tahasil - Naugaon, District - Jagatsinghpur of Tahasildar, Naugaon.
2. **Category:** This proposal falls under Category "B1", 1(a) - Mining of Minerals as the Mining lease area is more than 5.0 Ha. as per the EIA notification 2006 and its subsequent amendments.

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3. The quarry lease has not yet been auctioned and Tahasildar, Naugaon is present lessee of the sairat source. The period of lease is 5 years, as mentioned in approved mining plan. Mining lease is an identified sairat source in the DSR of Annexure I & sl.no. 6 which shows it is a working mine. The lease area has no other mines within 500 meters.
4. Mining Plan with Progressive Mine Closure Plan has been approved by Geologist, O/o Joint Director Geology Zonal Survey, Dhenkanal, Odisha vide letter no. Memo no.-1165 dated 19/10/2020.
5. **Location:** Sikhar Sand Quarry is located on Devi River located at Village - Sikhar, Khata No. 760, Kisam - Nadi, Plot No. - 1482(p), Tahasil - Naugaon, District - Jagatsinghpur, Odisha. The geo coordinates of the project are Latitude 20°03'40.5" N to N 20°03'48.7" N and Longitude 86°11 '01.2" E to 86°11'18.2" E. The area falls in Survey of India Topo sheet No. F45U4.
6. **Connectivity:** The sand quarry is at a distance of 1.32km from nearest village Sikhar and 21.4km from nearest town Jagatsinghpur. Nearest railway station is Gorakhnath Railway Station at 28.4km, nearest Airport is Biju Patnaik International Airport, Bhubaneswar about 44.3km and nearest Highway is SH-60 about 10.2km. Nearest Bridge is Devi River Bridge at 2km and River Embankment is about 0.6km. Nearest Reserve Forest is Dhaltangagarh Reserve Forest which is about 28.3km. There is no National Park, Wildlife Sanctuary, and Biosphere Reserve, Wildlife Corridors, Tiger/Elephant Reserves, Protected Forest etc. within 10 km radius of the Mine site.
7. **Topography:** It is gently sloping almost flat terrain with Seismic Zone – III as per IS: 1893 (Part-I): 2002 Survey of India with Topo-Sheet no. 73L/3.
8. **TOR:** SEIAA has issued the Terms of Reference (TOR) to sand quarry vide letter no - SIA/OR/MIN/58867/2020 on 08/07/2021.
9. **Public hearing:** Public hearing was conducted on dated 27.07.2022 at 10.30AM at ground near gram panchayat office, Village- Sikhar, Tahasil – Naugaon, District – Jagatsinghpur under the chairmanship of Smt. Chinmayee Biswas, Additional District Magistrate, Jagatsinghpur.
10. Main issues raised in public hearing are - repairment of road and proper communication facility and estimated budget allocated is Rs. 30,000, air born sand dust due to transportation activity and requested for water sprinkling on transport roads and plying of heavy vehicles at slower speed. The project proponent has assured sand will be fully covered by tarpaulin at the time of transportation. Plantation will be done along the roads, at the river bank and periodically water sprinkling will be done and estimated budget allocated is Rs. 40,000. Stone pitching along the river embankment will be carried out to maintain the slope stability and protection of the river embankment and estimated Budget is Rs. 25,000.
11. **Land-Use:** Land cover pattern of the study area delineating all the features has been studied through satellite imagery. The entire land use of the proposed area is a river bed which lies on Devi River. There will be no diversion or modification of any land use due to the mining activity.
12. **Replenishment study:** For the said project replenishment study has been done by field survey (volumetric survey) method. The replenishment of sand in the mining lease area is sufficient to sustain the mining operations at prescribed levels, restricted to 1m. The Pre-monsoon date of survey indicates that there is 257536cum of sand as Geological Reserve and 231040cum of

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sand as Mineable Reserve with depth of 2.2m. The Post-monsoon date of survey indicates that there is 269243cum of sand as Geological Reserve and 241541cum of sand as Mineable Reserve with depth of 2.3m & proposed production is 22582CuM per annum i.e. approx. 70% replenishment can be done

13. **Reserves and Mining:** Total reserves as per the approved mining plan are: Geological Reserves – 250906cum and Mineable Reserves – 226800cum. Proposed production is 22582cum/per annum and total production is 112910cum. Mining method is opencast manual mining method. Water table will not be intersected during the mining process.
14. No liquid waste will be generated from mining activities. A small amount of domestic wastewater from office toilet will be discharged into the soak pits/septic tank. Portable toilets will be used for generated domestic waste water.
15. **Manpower :** Total man power of 31 people will be required for the proposed project.
16. **Water requirement :**The total water requirement for the project estimated to be 3 KLD for mining, spraying, greenbelt development and domestic uses and will be sourced from the nearby available water source and drinking water will be sourced from tanker water.
17. **Power requirement :** No electrical power shall be required for mining operations.
18. **Greenbelt:** Greenbelt will be developed @ 50 nos saplings per year with consultation of concerned authority. As per commitment during public hearing plantation will be carried out along both sides of the haulage road and river bank. Native Species will be preferred for the plantation.
19. **Baseline study** of the study area was conducted during pre-monsoon from 1st October 2021 to 31st December 2021 for Sikhar Devi River Sand quarry. Ambient Air Quality Monitoring made in 8 locations & results shows the values of PM<sub>10</sub> – 54.6 µg/m<sup>3</sup> to 71.06 µg/m<sup>3</sup>, PM<sub>2.5</sub> – 16.71µg/m<sup>3</sup> – 27.21µg/m<sup>3</sup> , SO<sub>2</sub> – 6.61µg/m<sup>3</sup> – 9.1µg/m<sup>3</sup>, NO<sub>x</sub> – 9.7 µg/m<sup>3</sup> -13.6 µg/m<sup>3</sup> and noise ranges from 42.1dB(A) – 53.2 dB(A) during day time and 39.6 dB(A) – 42.5 dB(A) during night time.
20. **Project cost:** The estimated cost of the project is about 20Lakhs and the cost for Environment Management Plan - Capital cost: Rs.1,45,000/- and Recurring Cost: Rs.75,000/-
21. **Environment Consultancy:** The proponent along with the consultant **M/s Green Circle Inc., Gujarat** made a detailed presentation before the SEAC.
22. The SEAC in its meeting dated 29.11.2022 decided to take decision on the proposal after receipt of 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
a)	Replenishment Study Report details i.e., photographs, co-ordinates of pits, depth and volume of sand before and after monsoon period and correlate the result with the values obtained.	<ol style="list-style-type: none"> <li>1. Photographs are attached as <b>Annexure - 1</b>.</li> <li>2. Co-ordinates of pits are attached as <b>Annexure - 2</b>.</li> <li>3. Depth of sand is 2.3m</li> <li>4. Volume sand before is 231040</li> </ol>	Annexure-1 and 2 attached.

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		cum and after monsoon is 241541 cum.	
b)	Kissam details of land and NOC from Tahasildar for usage of approach road from proposed quarry to main road.	Kissam details & NOC from Tahasildar is attached as an <b>Annexure - 3</b> .	Annexure-3 attached -vide letter no 2239 dated 30-12-2022 mentioning kissam and NOC
c)	An undertaking that plantation shall be carried out alongside the road.	Undertaking is attached as an <b>Annexure - 4</b> .	Annexure-4 attached as undertaking mentioning plantation will be carried out on both side of haulage road during quarry operation.
d)	Authorization letter of the project proponent for engagement of Environmental Consultant for execution and monitoring of Environment Management Plan.	Authorization Letter is attached as an <b>Annexure - 5</b> .	Annexure -5 attached -vide Authorization Letter no. 2240 dated 30-12-2022.

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

- a) Amended EIA Notification dated 25th July, 2018, Guidelines for sustainable sand mining, 2016 and Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India shall be adhered to in execution of Mining.
- b) Extraction of sand may be limited to 0.1 meter (difference of level in thickness in pre and post monsoon levels) and total removal may be limited to 10501 cum/annum as per replenishment study.**
- c) Regular replenishment study to be conducted and report to be submitted.
- d) Provision of Bio-toilet shall be made at the site.
- e) Avenue plantation and plantation on both sides of the haulage road in consultation with/ on the advice of concerned Forest Department, Government of Odisha & W.R. Department Government of Odisha as well.
- f) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.
- g) The proponent shall engage Environmental Consultant for execution and monitoring of Environment Management Plan.

Proceedings of the SEAC meeting held on 27.03.2023 (Old proposals – compliance received)

## **ITEM NO. 08**

### **PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR BAITARINI SAND BED, ANANDAPUR OVER AN AREA OF 20.47 ACRES (8.284 HA.) IS LOCATED IN VILLAGE- ANANDAPUR, TAHASIL – ANANDAPUR, IN DISTRICT KEONJHAR BY SRI MANAS KUMAR BARIK- EC**

1. This proposal is for environmental clearance for Baitarini Sand Bed, Anandapur over an area of 20.47 acres (8.284 ha.) is in Village- Anandapur, Tahasil – Anandapur, in district Keonjhar of Sri Manas Kumar Barik.
2. **Category:** The project is categorized in Category-B1 of Schedule under item 1(a)-Mining of Minerals in the EIA notification, 2006 and its subsequent amendments.
3. The Mining plan has been approved for a period 2020-21 to 2024-25 by The Joint Director of Geology, Keonjhar. Vide letter no – 2390/CZ, dated 30.07.2020 in favour of Tahsildar, Anandapur.
4. The lease was granted to Mr. Manas Kumar Barik being the successful bidder for tenure of 5(Five) years from the date on which this executed deed is registered.
5. Mining lease is a running mine identified sairat source in the DSR page no 4, SI No. 34, annexure II.
6. **Public hearing details:** Public hearing was conducted on 22.06.2022 at village Anandapur, Keonjhar district. Issues raised during the public hearing were selling of sand with appropriate price, regular maintenance & monitor of transporting vehicles, PM Indra Aawas & Biju Pucca Ghar beneficiaries shall get sand at reasonable price, protection of dam road & demarcate the area of lease, employment of labour class in sand mining. Budget earmarked for action plan of public hearing amounts to 5 lakhs.
7. **TOR details:** Terms of Reference (ToRs) was issued by SEIAA vide letter no. 241/SEIAA dated 01.02.2021.
8. **Location and connectivity:** The proposed lease area of Baitarani River sand bed quarry situated at village Anandapur, Tahasil- Anandapur, District - Keonjhar. The lease area is under reference featured in the Survey of India Topo sheet no. 73K/4 is on Khata No. 1281, Plot No.3377, Kissam- Nadi. The geo coordinates of the lease area is 21°12'53.78"N 86°07'07.37"E 21°12'58.89"N 86°07'02.63" E. The proposed area is located 6.37 km from District Headquarters Keonjhar and 150 Km from State Capital Bhubaneswar. Nearest railway station is at Tingripal railway station at an distance of 25.0Km. The lease area can be approached from National Highway NH-215(Gumla-Barkote) is at 0.7 Km away from the ML area. State Highway SH-53 (Banarpal-Pallahara) is 1.0 km away (Aerial Distance). Nearest Airport is Bhubaneswar Airport which is at 150Km. The area over 8.284 ha is a non-forest Govt. land of Nadi kissam, having ground elevation of 35 mRL.River bridge is at 1.8 km away and river embankment is 1km away from the proposed lease area.
9. **Topography and drainage:** The general topography of the area around the mine site is general plan agricultural land along the river. The area constitutes almost alluvial plain without any conspicuous topographical features and forms a part of the vast Indo-Gangetic plain. The proposed area is undulating. The flow rate of the river varies with the quantity of precipitation in the catchment area.

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- 10. Replenishment report:** Considering all the mining constrains, the volume of sand available during pre and post monsoon survey in safe workable area is computed. It is estimated that during pre-monsoon and post-monsoon, the sand available in safe workable area is 14573.22cum and 9904.618cum respectively. The volume of sand available during post monsoon survey around 9904.618m<sup>3</sup> which can be treated safe volume to be extracted. Since as per guidelines 60% of extractable sand i.e.5942.77m<sup>3</sup> may be allowed to extract, further permits may be decided by SEIAA, Odisha.
- 11. Reserves:** As estimated, geological reserve of sand is 125780cum and mineable reserve is 51840cum.
- 12. Mining method:** The open cast manual method and transportation through dumpers and tractors will be carried. No mining activity will be undertaken during the monsoon season. No drilling & blasting will be performed for production requirement. The bench height will be 1m and width will be along the base of deposit. There will be no under cuttings or over hangs. The average thickness of the deposit is 2m.
- 13. Water requirement:** Water requirement for the project is 5KLD for domestic, plantation & dust suppression which will be sourced from Govt sources of water.
- 14. Power requirement:** The power required for the office is minimal, shall be taken from the General Electric supply of the area. However, if required for lighting in the project area at night power will be sourced from State Grid and for same it is estimate as 1.0 KVA.
- 15. Baseline study:** Baseline studies was carried out during period March 2021 to May 2021, PM10 ranges within 65-37 µg/m<sup>3</sup>, PM2.5 ranges within 45.0-20µg/m<sup>3</sup>, SO<sub>2</sub> ranges within 6.4-4.0 µg/m<sup>3</sup> & NOx ranges within 13.2-9.0 µg/m<sup>3</sup>. In Industrial areas daytime noise levels were about 50.3 dB (A) and 42.3 dB (A) during nighttime, which is within prescribed limit by CPCB (75 dB (A) Day time & 70 dB (A) Nighttime). In residential areas daytime noise levels varied from 46.6dB (A) to 55.3 dB (A) and nighttime noise levels varied from 42.3 dB (A) to 50.2dB (A) across the sampling stations. Surface water analysis showed the pH value ranging from 6.8 to 7.2 and within the limits (6.5 – 8.5) of IS 2296:1992. The sulphate content in the collected surface water ranges 3.2 mg/l to 4.0 mg/l. The chloride content in the collected surface water sample ranges from 9.5 mg/l to 11.0 mg/l. DO of the collected surface water sample ranges from 6.0 mg/l to 7.0 mg/l. BOD of the collected surface water sample ranges from 1.4 mg/l to 1.8 mg/l. The ground water results of the study area indicate that the pH range varies between 6.6 and 7.4. It is observed that the pH range is within the limit of IS 10500:2012. The acceptable limit of the chloride content is 250 mg/l and permissible limit is 1000 mg/l. The chloride content in the ground water for study area ranges between 9 mg/l – 10.5 mg/l. It is observed that all are well within the permissible limit of IS 10500:2012. The desirable limit of the sulphate content is 200 mg/l and permissible limit is 400 mg/l. The sulphate content of the ground water of the study area varies between 2.3mg/l – 3.1 mg/l. It is observed that all the samples are within the permissible limit of IS 10500: 2012.
- 16. Greenbelt:** It is proposed to plant 50 Nos. per year of native species along with some fruit bearing and medicinal trees during the plan period and a budget of Rs. 0.6 Lakh for plantation is given in EMP. Common species to be planted are Neem, Peepal, Mango, Shisham, Sirish, Babool, Chakunda.

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17. **Manpower requirement:** In the mine for total production of 10368 Cu.m/Annum of River Sand 16 nos. of person are to be employed daily.
18. **Project cost:** The estimated cost of project is 50 Lakhs. EMP capital cost of the project is 11.0 Lakhs and recurring cost is 4.50Lakhs/Annum.
19. **Environment Consultant:** The Environment consultant **M/s EHS 360 Labs Private Limited, Chennai** along with the proponent made a presentation on the proposal before the Committee.
20. The SEAC in its meeting dated 03-03-2023 decided to take decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
a)	Span and length of bridge and Anandapur barrage.	<p>I. The nearest bridge is Salapada bridge is located at a distance of 1.8 km from the Baitarani Sand Bed, Anandapur. The length of bridge is 682 m and span length is 52m</p> <p>II. The Anandapur barrage is located at a distance of 1.0 km. The length of barrage is 490m and spam length is 16 m</p> <p>The distance of bridge and barrage and their spam length as authenticated by Tahasildar, Anandapur is enclosed as <b>Annexure –A.</b></p>	Annexure- A attached.
b)	Rainfall data of last year June from the concerned authority.	The Date wise rainfall data as down loaded from website, SRC Odisha validated data is enclosed as <b>Annexure-B.</b>	Annexure -B attached and complied
c)	Previous production details and distance of proposed quarry from nearest sanctuary.	Total production during last five year was 30,123 CuM. The nearest sanctuary is Hadagarh Wildlife sanctuary located at a distance of 20 km from Baitarani Sand Bed, Anandapur. The authenticated annual production of the sand bed for last 5 years in enclosed As <b>Annexure –A.</b>	Annexure- A attached and complied.
d)	The traffic study report vetted by a reputed institute.	The traffic report is attached herewith as <b>Annexure-C.</b>	Level of Service (LOS) will be - 'B' as vetted by Central Institute of Mining and Fuel Research. Annexure-C

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Environmental Scientist, SEAC

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

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

- There is net loss of sand as per replenishment study. On what basis extraction is proposed.
- Bridge is of 682 meter length and about 1.8km from the lease area. As per Enforcement and Monitoring Guidelines for Sand Mining 2020 "Sand and gravel shall not be extracted upto a distance of 5X of the length of the bridge on the upstream side". Taking this criteria sand extraction is not permissible as bridge length is 682 meter.

#### **ITEM NO. 09**

#### **PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR KIMS MEDICAL COLLEGE & HOSPITAL, OVER AN AREA 7.795 HA. SQM. PLOT NO: 24,25,12/A, 12/C, 14/A & 14/B, MOUZA: PATIA, TAHASIL: BHUBANESWAR, DIST: KHURDA OF SRI RABINDRA NATH DASH – EC**

- The proposal is for Environmental Clearance of for KIMS Medical College & Hospital, over an area 7.795 Ha. Sqm. Plot No: 24,25,12/A, 12/C, 14/A & 14/B, Mouza: Patia, Tahasil: Bhubaneswar, Dist: Khurda of Sri Rabindra Nath Dash.
- The project falls under category "B" or activity 8 (a)-Building and Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
- This project is Construction and Expansion of campus-V(KIMS Hospital) C1+C2+G+4 -storey's named as (KIMS hospital building) situated within the premises of Plot No. 25,24,12/A,12/C,14/A & 14/B at Mouza – Patia under Bhubaneswar Development Authority.
- Location and Connectivity** - The Project Site is located at - Mouza-Patia. The Geographical coordinates of the project site is: Latitude – 20° 21'09.90"N to 20° 21'04.47"N & Longitude – 85° 48'49.96"E to 85° 48'42.87"E. The Project Site is well connected with NH 5 at 2.5km. Nearest Railway Station is Bhubaneswar Railway station is 12.1km. Nearest Airport is Biju Pattanaik Airport – 16.3km. Bhubaneswar fire station at 9.32km. Nearest Reserve Forest is Bharatapur RF – 2.7 km. No Ecologically Sensitive areas within 10 KM radius. Project Site is well connected to existing KIMS Hospital Road running all the way from in N & E direction and Patia Main Road serves in the S direction. The hospital has two gates that serve the dual purpose of entry and exit. The same service road acts as connecting link between one part of the city with the other which is used by the patients and general public.
- The site is coming under Bhubaneswar Development Authority. Total Plot Area is 77962.68 sqm / 19.264Ac. or 7.795 Ha. Total built up area = 112994.63 Sqm. No. of clinical Beds=1300 nos.
- The Proposed Area Statement of The Project:**

#### **i) Proposed Ramp & Lobby in Hospital Block**

Ground floor B.U.A	259.42 sqm
First Floor B.U.A	259.42 sqm
Second Floor B.U.A	259.42 sqm
Third Floor B.U.A	259.42 sqm
Fourth Floor B.U.A	259.42 sqm

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Fifth Floor B.U.A	259.42 sqm
Total Floor B.U.A	1297.10 sqm

**ii) Proposed Cancer Block (Capacity-300)**

Lower Basement Floor B.U.A	1578.36 sqm
Upper Basement Floor B.U.A	1469.95 sqm
Ground floor B.U.A	1210.48 sqm
First Floor B.U.A	1231.13 sqm
Second Floor B.U.A	1372.04 sqm
Third Floor B.U.A	1430.96 sqm
Fourth Floor B.U.A	1430.96 sqm
Total Floor B.U.A	9723.88 sqm

**iii) Proposed Library Block**

Basement –I B.U.A	43.00 sqm
Basement-II B.U.A	43.00 sqm
Ground floor B.U.A	1617.85 sqm
First Floor B.U.A	1650.81 sqm
Second Floor B.U.A	1650.81 sqm
Third Floor B.U.A	1650.81 sqm
Fourth Floor B.U.A	1650.81 sqm
Fifth Floor B.U.A	1650.81 sqm
Total Floor B.U.A	9957.9 sqm

**iv) Basement-I Parking Area:** 3733.67 **Basement-II Parking Area:** 3733.67 **Podium Floor Parking Area:** 3344.36

**v) Proposed Parking Block**

Basement-I Parking Area	5499.27 sqm
Basement-II Parking Area	5366.02 sqm
Podium Floor Parking Area	5268.25 sqm
Total Proposed B.U.A	20978.88sqm

- Water requirement:** During Operation phase the fresh water requirement is approx. 760 KLD (source is IDCO), out of which for Residents (Student/Patient/ Staff/Doctors/Attendants) – 7,15,000 LPD, Day Working Staff & Patients – 45,000 LPD, Watering of Lawn, Garden & Play Ground – 50,000 LPD, Kitchen, Laundry & Ground Recharge- 50,000 LPD
- Waste water details:** Waste Water Generation 409 KLD, will be treated in STP of capacity 400KLD. Treated Waste Water Recovered & to be reused - 280 KLD & to be reused (Greenbelt – 50KLD & washings and others - 230 KLD) and rest 120 KLD discharge to nearest Municipal Drain.
- Power requirement:** The total power requirement approx. 1215 KW and source is from TPCODL. Emergency power back of capacity 6965 KVA through - 3Nos. DG set 1500 KVA, 1No. DG set 600 KVA, 3Nos. DG set 500 KVA, 1No. DG set 365 KVA.
- Rain Water Harvesting:** Total Runoff from Storm Water from Site is 1007 m<sup>3</sup> so based on 1no. Harvesting pit volume 43 cum we required 61 nos. Rain water Harvesting Pits.
- Parking Requirement:** Total area provided for parking is 45373.5 sqm.

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12. **Fire fighting Installations:** Fire fighting system will be installed as per recommendation of the Firefighting Officer, Odisha and as per the guideline of NBC (part-4).
13. **Green Belt Development:** Total green area measures 18250.39Sq.mts.
14. **Solid Waste Management:** Total quantity of Municipal Solid Waste:  
 Bio-degradable waste = 217 kg/day.  
 Non- bio degradable waste = 76kg/day. Hand Over to Authorized Agencies.  
 Hospital/Biomedical waste = 110 kg/day disposed to Sani Clean Pvt. Ltd. Segregation, Storage & Disposal as per Bio-medical Waste Management Rules 2016.
15. The estimated project cost is ` 65 Crores and cost for EMP is ` 1332 lakhs.
16. The project proponent along with the consultant **M/s Green Circle INC., Vadodara-390021(Gujurat)** made a detailed presentation on the proposal on 18.05.2022. The SEAC decided to take decision on the proposal after receipt of the certain information / documents from the proponent followed by site visit of sub-committee of SEAC.
17. 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
a)	Statutory clearance status such as Environmental Clearance, Consent to Establish and Consent to Operate from the Board for the existing building.	The CTO is attached as <b>Annexure-1</b>
b)	BDA letter refers to regularization of the Building from SEIAA for Environmental Clearance. So, construction status of the existing building such as total built-up area constructed prior to 14 <sup>th</sup> September, 2006 and after 14 <sup>th</sup> September, 2006 is to be submitted for academic Block (s) and Hospital Building (s) separately with associated infrastructures.	The letter from BDA to regularization is attached herewith as <b>Annexure-2</b> .
c)	Copy of all approval letters of BDA of existing buildings from the inception.	Copy Attached as <b>Annexure-2</b> .
d)	Existing water consumption is stated to be 493 KLD for hospital and 107 KLD for domestic purpose. Water consumption both for existing set up and proposed expansion be submitted along with basis of calculation and water balance diagram both for monsoon and non-monsoon period.	Water balance diagrams are attached herewith as <b>Annexure-3</b> series.
e)	Agreement copy of PP with Sani clean. Agreement copy submitted found to have	Agreement copy is attached herewith as <b>Annexure-4</b> .

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	been expired since 31st October, 2020.	
f)	Reduce the discharge treated water to drain by increasing the greenbelt indicating presently being discharged & proposed to be discharged with permission from the concerned authority of the drain for the purpose.	Instruction followed and implemented as proposed. The permission letter of the concern authority is attached as <b>Annexure-5</b> .
g)	Detailed land schedule with kissam of land in tabulated form along with supportive land documents of all academic/institutional/clinical buildings/parking space and physical features of the existing and proposed expansion showing the same in layout map including land use pattern. "Kissam" of the land in "Sabik" and "Haal" land record.	Detailed land schedule with kissam of land are attached as <b>Annexure-6</b> .
h)	Comparative table showing existing and proposed project in terms of environment features / parameters and physical features / parameters including safety with 3D pictures including the distance between the buildings as against the norm.	Attached as <b>Annexure-7</b> .
i)	Separate STP and ETP units or brief write up for integrated setup. To confirm the existing no of STPs with their corresponding capacity( s) and their location in the layout map within put details and output discharge and proposed additional nos. and capacity with location. Similarly to confirm the existing no of ETPs with corresponding capacity and their location in the layout map with input details & output discharge & where to discharged and disposal of ETP sludge including for the expansion also.	Attached as <b>Annexure-8</b> .
j)	Chemical analysis report on discharge of STP and ETP vis-à-vis norms and discharge of integrated setup of STP and ETP (if existing is integrated).	Chemical analysis report of STP & ETP of existing building are attached as <b>Annexure-9</b> .
k)	Traffic study report from an institute of repute and decongestion plan at	Traffic study report is attached as <b>Annexure-10</b> .

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	intersecting points of exit & entry with public road.	
l)	Provision for Incinerator to be made and if not, to justify, in absence of incinerator, how the organic wastes, infectious waste etc. would be deactivated to avoid further pollution and hazardousness. Also submit how the infectious waste of 436.66kg/ day as stated at present being disposed and proposed to be disposed after expansion indicating the estimated quantity.	The organic wastes, infectious waste are disposed to the OSPCB authorized & approved agency (Sani clean).
m)	Monitoring plan and measures to be taken for safely disposal of Bio-medical wastes.	The disposal of Bio-medical wastes are implementing as per the SOP given by the approved agency and with his supervision.
n)	Layout of DG set location with respect to wind direction.	Layout plan for DG is attached as <b>Annexure-8.</b>
o)	Details of solar panel accommodated and utilized with power generation details vis-à-vis total power used per day for existing and proposed after expansion.	Details of solar panel accommodated and utilized with power generation details is attached as <b>Annexure-11.</b>
p)	Building wise built-up area of existing and proposed expansion both for academic and hospital separately.	Separate map for Building wise built-up area of existing and proposed expansion both for academic and hospital are attached as <b>Annexure-11</b> series.
q)	Permission/NOC from BMC for discharge of treated water to existing drain for existing and additional load	Permission for discharge of treated water to existing drain for existing and additional load is attached as <b>Annexure-5</b>
r)	Layout and breakup percentage for green belt and landscape for existing and proposed with dimensions & stretch and percentage of the land area excluding land scape.	Attached as <b>Annexure-11.</b>
s)	Fire-fighting and parking arrangements for existing and for proposed expansion.	Attached as <b>Annexure-12.</b>
t)	Rain water harvesting and recharging details to be submitted.	Report Attached as <b>Annexure-13.</b>
u)	Parking provision in terms of space and ECS (both for two wheelers and four wheelers) in reference to present beds, OPD and proposed expansion in consideration of patients' visitors, doctors, and medical staff be submitted.	Attached as <b>Annexure-14.</b>

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
v)	Permission/license of proposed HSD storage tank including details of the present arrangement.	There is no provision for HSD storage tank.
w)	Dimension (Stretch and width) of greenbelt with number of trees Existing and Proposed to be planted.	Details are Attached as <b>Annexure- 8</b> .
x)	Layout map showing the drain network (internal), Recharge pits, STP etc. to be submitted.	Attached as <b>Annexure-11</b> .
y)	Firefighting arrangements with periphery roads for firefighting and its width to be submitted in layout map including entry and exit gates.	Attached as <b>Annexure-11</b> .
z)	NOC from CGWA and permission from WR department Government of Odisha for current use of ground water and proposed drawl of ground water after expansion to be submitted.	Attached as <b>Annexure-15</b> .
aa)	The STP and ETP should not be housed in the same building. The pipelines shouldn't be inter-connected. Attempt should be made to operate the ETP on zero discharge principle. Detailed proposal to this effect to be submitted.	Agreed and maintain the same as proposed.

18. The SEAC in its meeting held on 18.05.2022 decided to take decision on the proposal after site visit of the Sub-Committee of SEAC.

19. The proposed site was visited by the sub-committee of SEAC on 09.11.2022. Following are the observations of the Sub-Committee:

- a) PP and Consultant were present along with other team members. It was observed that there has been some construction done in one of the blocks to which the PP explained that- Non-requirement of EC being the area was within the limit. Now with expansion it is more than 20000 sq mt and thus, they have applied for total buildings as per proposal submitted.
- b) Inside roads were wide enough and
- c) Further, the PP was asked to submit some documents which has now been submitted by them as below:
  - i) BDA approved Plans for the buildings.
  - ii) A table mentioning the building blocks with description, year of approvals, area of buildings and year of constructions with explanations for better understanding.
  - iii) Management of solid bio-medical wastes of hospital inside the premises as explained to sub-committee.

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**Environmental Scientist, SEAC**

20. Based on above documents and explanation, the Sub-committee recommend for EC subject to compliance of all requirements (which could be the conditions of EC) like: Solar Power, Traffic study, NOC from BMC for treated effluent discharge, Fire regulation compliances, RWH and drains as per approved lay out and if any other parameters as asked by Committee during presentation.

21. The documents furnished by the proponent to the Sub-Committee reveals the existing and proposed construction built up area as follows;

Sr. No	Name of the Building	Year of BDA Approval With letter No	Total Built up Area	Year of Construction Completion	Remark
<b>HOSPITAL</b>					
1	Hospital	No.: 6150/BP Dt: 29.06.2005	20336.14 Sqm	01.05.2006	As per rule Environment Clearance is not required, because all the construction was completed before July 2006
2	Hospital	No.28717/BDA Dt:29.07.2022	34519.15 Sqm	Yet to be Constructed	As per rule the total area is more than 20000 sqm. Environment Clearance is required.
3	Dormitory Block	No.28717/BDA Dt:29.07.2022	1729.56 Sqm	Yet to be Constructed	As per rule the total area is less than 20000 sqm. Environment Clearance is not required.
4	Cancer Block	N0.28717/BDA Dt:29.07.2022	9723.88 Sqm	Yet to be Constructed	As per rule the total area is less than 20000 sqm. Environment Clearance is not required.
5	Parking Block	No.28717/BDA Dt:29.07.2022	10865.29 Sqm	Yet to be Constructed	As per rule the total area is less than 20000 sqm. Environment Clearance is not required.
<b>MEDICAL COLLEGE:</b>					
1	College	No.: 10455/BP/BDA Dt: 23.11.05	13453.53 Sqm	01.05.2006	As per rule Environment Clearance is not required because all the construction was completed before July, 2006
2	Library	No.28717/BDA Dt:29.07.2022	17425.24 Sqm	Yet to be Constructed	As per rule the total area is less than 20000 sqm. Environment Clearance is not required.
		<b>TOTAL</b>	<b>108052.79 Sqm</b>		

22. The proponent has constructed 20336.14 Sqm for Hospital component prior to 14.09.2006 for which Environmental Clearance is not required. Further, the proponent has constructed 13453.53 Sqm for College component prior to 14.09.2006 for which EC is also not required.

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Although the library of college with proposed built-up area 17425.24 Sqm is coming under educational institution component, they have included the same in proposed built up area for the purpose of obtaining Environmental Clearance. Hence, built up area for Hospital and College component for which EC is required detailed below:

Sr. No	Name of the Building	Year of BDA Approval With letter No	Total Built up Area
<b>HOSPITAL</b>			
1.	Hospital	No.28717/BDA Dt:29.07.2022	34519.15 Sqm
2.	Dormitory Block	No.28717/BDA Dt:29.07.2022	1729.56 Sqm
3.	Cancer Block	No.28717/BDA Dt:29.07.2022	9723.88 Sqm
4.	Parking Block	No.28717/BDA Dt:29.07.2022	10865.29 Sqm
<b>COLLEGE</b>			
1.	Library	No.28717/BDA Dt:29.07.2022	17425.24 Sqm
		<b>TOTAL</b>	<b>74263.12 Sqm</b>

23. The proponent has intimated after the site visit by the sub-committee of SEAC that total built up area mentioned in their earlier application was 1,12,994.6 sqm both for KIIMS Medical college and Hospital, but after getting final approval from Bhubaneswar Development Authority (BDA), the total built-up area is 108052.79 Sqm, out of which they require Environmental Clearance for built up area of 74263.12 Sqm. They have submitted the copy of building plan approved on dtd. 29.07.2022.

24. The Committee observed the followings;

- a) The total built up area for Hospital and College component is 108052.79 Sqm, out of which they have constructed 33789.67 Sqm prior to EIA notification 14<sup>th</sup> Sept, 2006. Hence, this will not be treated as violation case. They have now proposed to obtain Environmental Clearance for proposed built up area of 74263.12 Sqm for which they require to submit modified proposal with modified documents such as Form-I, Form- IA, Prefeasibility report etc. as they have modified the proposal than the original one.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Green Circle INC., Vadodara-390 021 (Gujurat)**, the SEAC recommended for grant of Environmental Clearance valid for a period of 10 years with following specific conditions in addition to the conditions as per **Annexure- D** for modified built-up area of 74263.12 Sqm. **However, the SEIAA may consider to grant EC after the proponent submits revised documents such as Form-I, Form-IA, Pre-feasibility report and other documents.**

- i) All the land kism shall be converted to "Gharabari" before going for construction activity for the project by appropriate revenue authority including that of " SABAK/ HAAL" records as well.
- ii) No of trees that are cut with due permission as stated during the process of redevelopment of the project site, necessary compensatory plantation shall be done by PP or the authority

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concerned or by the Forest department, Government of Odisha under deposit scheme as per the Government rules

- iii) Plantation and solar facilities to be implemented as proposed at appropriate time.
- iv) Parking in terms of ECS (4-wheeler, 2-wheeler and bicycles) shall be provided compatible with patients and attending visitors, OPD patients and visitors with them, Doctor's and staffs, nursing sisters and at least 10% floating population in confirmative building by- law/NBC norm/ applicable laws and rules for this kind of project.
- v) The proponent shall operate STP and ETP separately as standalone system and both shall not be inter-connected. ETP outlet effluent shall not be discharged to outside the project premises i.e., "Zero Liquid Discharge" from ETP to outside the premises shall be maintained.
- vi) Under no circumstances, treated waste water discharge from ETP shall be used for dual plumbing for flushing purpose.
- vii) The Decongestion plan as given by the proponent in the traffic density study report shall be implemented for compliance with a definite time frame.
- viii) Existing waterbody if any shall be renovated and maintained properly. Periodic monitoring of water quality shall be taken up to ensure its upkeeping.
- ix) The proponent shall obtain permission from concerned authority for discharge of surplus treated water of STP only to nearby drain & nallah.
- x) Permanent Environment Management Cell with environment professionals shall be in place, both for existing and proposed expansion within a definite time frame.
- xi) **This EC may be granted subject to strict compliance by the Authority concerned on the conditions and commitments made by PP.**
- xii) **This EC may be granted without prejudice to any order or direction from any court of competent jurisdiction or competent authority under applicable laws including that of any litigation or legal dispute on land (if any).**
- xiii) The PP and/ or the appropriate authority for the purpose shall comply with all the conditions of EC and if anything is found/ noticed otherwise at any point of time, the EC so granted shall be deemed to have withdrawn/revoked with immediate effect besides levy of penalty or actions as deem fit under applicable laws.
- xiv) The Campus of the project area shall be provided with Pucca Boundary Wall with an intention to Protect the Green Belt, treatment Plants, Energy Conservation Equipments and Biodiversity of the project
- xv) **All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.**

## **RE-CONSIDERATION OF B1 PROPOSALS RETURNED FROM SEIAA, ODISHA:**

Following proposals have been returned from SEIAA, Odisha for reconsideration and decision of the SEAC on returned proposals are as follows:

### **A. PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR EXPANSION WITH MODIFICATION OF “ARIANA”, MULTISTORIED RESIDENTIAL COMPLEX OVER AN BUILT-UP AREA- 58788.51 SQM AT MOUZA- SANKARPUR, BHUBANESWAR, ODISHA AT MOUZA- PATIA, OF BHUBANESWAR MUNICIPAL CORPORATION IN THE DEVELOPMENT PLAN AREA OF BHUBANESWAR DISTRICT KHORDA FOR M/S.KRIDAY REALTY PRIVATE LIMITED OF SRI SIDDHARTHA ROY – EC**

1. The proposal is for Expansion with Modification of “ARIANA”, Multistoried Residential complex over a built up area-58788.51 sqm at Mouza- Sankarpur, Bhubaneswar, Odisha of Bhubaneswar Municipal Corporation in the Development plan area of Bhubaneswar District Khorda for M/s.Kriday Realty Private Limited of Sri Siddhartha Roy.
2. The project falls under category “B” or activity 8 (a)-Building & Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. M/s Kriday Realty Private Limited has proposed for expansion with modification of Residential Project “TATA ARIANA” located at Mouza - Sankarpur , Bhubaneswar in the district of Khurda in Odisha.
4. The project has been granted prior environmental clearance vide letter no - 1997/SEIAA on dated 24th April 2013 for construction of 12 Towers having total construction area of 1,85,176.33 m<sup>2</sup> (including Basement ) 132395.7 sqm (Excluding Basement area).
5. Later due to PPP agreement expired in the year 2017 & Extension of Time (EoT) received only in December’2021 from BDA building revised proposal for expansion and modification was submitted and recommended for the ToR .
6. Based on the same ToR was granted vide Letter No. SEIAA-File No- File No.76188/83-MIS/04-2022 dated 29.04.2022 for Expansion and Modification of Residential Project “ TATA ARIANA ” for total plot area of 12 Acre or 48575.31 sqm .
7. **Location and Connectivity** – The proposed site is located at Mouza- Sankarpur, Bhubaneswar, Odisha. The Geographical co-ordinate of the project site are Latitude: 20°15'47.40"N & Longitude: 85°45'22.72"E. The site is very near to NH 5 is approx. 0.92km.The nearest railway station is Bhubaneswar Railway Station approx. 9.3 km from the project site. Biju Patnaik International Airport is at a distance of approx. 7km from the project site. Chandka-Dampara Wild Life Sanctuary is about 7.71km. Nandankanan Wild Life Sanctuary is about 14km.
8. The site is coming under Bhubaneswar Municipality area.
9. The residential population of the project will be 2392 persons after 100% completion. The population for the project is estimated at 2392 permanent, 316 visitors, and 1133 in retail, Club & Town admin building etc.
10. The Current Status of building Project:

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S. No.	Project Activity	Details	Work completed so far	Work Yet to be completed
i)	Plot Area	Total Plot Area: 48575.31 sqm. (12.00 Acre/ 4.857531 Ha), In Possession-201537.49 sqm		
ii)	Ground coverage	9,977.279 (20.5%)	6918.703 (14.2%)	3058.576 (6.3%)
iii)	Road Area	8075.162		
iv)	Green belt (plantation area )	9997.585		
v)	Green belt above Podium	8195.295		
vi)	Service Area	515.522		
vii)	Swimming Pool	269.383		
viii)	open parking area	5800.365		
ix)	Proposed FAR	Permissible -2.75 Proposed – 2.749		
x)	Built Up Area	EC obtained for 12 Towers with built-up area of 1,85,176.33 m <sup>2</sup> (including Basement ) & 132395.7 sqm (Excluding Basement area)		
		The total built-up area after modification will be decreases from 1,85,176.33 m <sup>2</sup> (including Basement ) to 171593.75 m <sup>2</sup>	Existing-79458.56 sqm (Excluding Basement) 112805.24 sqm (Including Basement))	Proposed built up area- 58788.51 sqm
xi)	Landscape Area Total Green belt (plantation area ) 20.6 % Green belt above Podium 16.9 %	18192.88 sqm (37.5 %)	Green belt (plantation area 9997.585 sqm	
			Green belt above Podium 8195.295 sqm	
xii)	Parking Area 30 % percentage of total built-up area towards FAR	Total parking area - 41,685.917	Existing 8 Towers = 24377.318 Sqm (31% of Built up area )	Proposed 4 Towers & = 17308.599 Sqm (30% of Built up area )
xiii)	Maximum height of building	66 m	-(G+13, G+14 , G+15 & G+16) -51 m	Proposed – ( G+21) -66 m
xiv)	No. of Units	1210 nos.	792	418 Total no of L.I.G. Flats=244 nos (Which is more than 20% of total nos. of Flats)
xv)	Total project cost	` 557 Cr	` 346 Cr	` 211

**11. Water Requirement** – During Operation phase the total water requirement for proposed 4 towers is approx. 323 KLD (domestic + flushing ), out of which total domestic water requirement for residential is 215 KLD, flushing water is 108 KLD . The total fresh water requirement is 215 KLD (daily basis for residential blocks for domestic requirement).It is expected that the proposed additional 4 towers will be generate approx. 269 KLD (80 %

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of wastewater from residential and club area. The wastewater will be treated in a STP having capacity of 860 KL (provided for Existing and proposed sewage water Treatment ) provided within the complex generating 215 KLD of recoverable treated waste water from STP which will be recycled within the project. During dry season there it will be follow zero discharge of surplus treated wastewater and 140 KLD will become surplus in monsoon season and will be discharged into municipal sewer. Sewerage treated water can be used in Toilet Flushing & Irrigation to reduce the load on fresh water.

Therefore, the total fresh water requirement is approx. 895 KLD ( Existing +Proposed+ visitor and retail area etc.), out of which total domestic water requirement for residential is 589 KLD, flushing water is 306 KLD . The total fresh water requirement is 589 KLD (daily basis for residential blocks for domestic requirement).

12. **Total no. of Rainwater Harvesting pits** – 08 nos for the project.
13. **Power Requirement** - The overall maximum demand is approximately 4384.49 kW or 6000kVA at power factor 0.9. It is proposed to have Grid supply at 33KV from Electricity Supply Company. It is proposed to have 100% Power Backup for Common Area Services and limited for each flat. The Back-up power shall be provided by 415 Volt DG Sets. Total Backup power load is 3530 KVA which will be met by 3 nos. 1010 kVA, 1 no. 500 KVA 415 DG sets. Solar Power proposed for 4 towers is 100KW.
14. **Solid waste Management** - During operation phase, waste comprise of municipal waste majorly. Total waste generation after overall development of the project is estimated to be 3381 kg/day. Waste will be segregated into recyclable, compostable and inert waste. Apart from this E-waste will be generated from the project site. Hazardous waste to be generated from site is used oil only from DG sets. Presently, total solid waste generation is about 1.196 T/day. However, it is envisaged to be 3.8 T/day after 100% completion and operation of the project. The Municipal Solid Waste Management will be conducted as per the guidelines of Solid Waste Management Rules, 2016.
15. **Green Belt** – The project has been well planned to have sufficient open space and green coverage. The green area comprises of evergreen, tall and ornamental trees and ornamental shrubs inside the premises. The green area has been developed over total green area measuring 18192.88 sqm (37.5 %) has already been developed. The biodiversity in the area will improve due to the proposed green cover. Evergreen tall and ornamental trees and ornamental shrubs will be planted inside the premises.
16. **Parking Details** – Total Parking Area Provided - 41,685.917Sqm. (Existing 8 Towers = 24377.318 Sqm (31% of Built up area) & Proposed 4 Towers = 17308.599 Sqm (30% of Built up area ).
17. **Rain Water harvested** through 08 nos. of Rain Water recharging pits. .
18. **Fire fighting Installations:** Fire fighting system will be installed as per recommendation of the Firefighting Officer, Odisha and as per the provisions given in Part-IV of National Building Code of India -2016 and relevant BIS specifications.

19. The project cost is 577 crores in total out of which for existing building is 327 crores and for proposed building is 250 crores. Environmental Monitoring Programme Cost Capital and recurring cost towards EMP will be Rs. 2058.75 lakhs and 429.9 lakhs/ annum respectively.
20. The project proponent along with the consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar** made a detailed presentation on the proposal on 03.08.2022.
21. The SEAC in its meeting held on 03.08.2022 decided to take decision on the proposal after receipt of certain information / documents from the proponent followed by site visit of Sub-Committee of SEAC.
22. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
i)	Certificate from chartered civil engineer that no construction has been made in proposed four towers bearing number 5,6,7,8. Construction status of the original plan approved vis- a- vis the approved revised plan also.	Certificate from Chartered Civil Engineer attached as <b>Annexure-1.</b>
ii)	Comparative matrix on relevant environmental parameters e.g. impact on STP, Green belt, Fire tender roads etc on expansion. Whether existing system can accommodate the proposed expansion?	Comparative matrix on related to environment parameters e.g. impact on STP on expansion is attached as <b>Annexure-2.</b>
iii)	Reduce discharge of treated water to drain by utilising in green belt plantation.	Water balance diagram is attached as Annexure-3 During dry season there it will be follow zero discharge of surplus treated wastewater and 140 KLD will become surplus in monsoon season and will be discharged into municipal sewer. Sewerage treated water can be used in Toilet Flushing & Irrigation to reduce the load on fresh water.
iv)	Detailed calculation on solar energy existing and proposed.	<b>Solar Power Requirement (Existing phase , where OC is obtained)</b> <b>SOLAR WATER HEATING</b> 20 % of total hot water requirement must be catered through Solar Thermal system for ph-I &II: No. of Flats = 1BHK= 222, 2BHK 378 nos.+ 3BHK 192 nos TOTAL-= 792 Flats Hot Water Requirement @ 40 lpcd = 33000 liters <b>Total solar collectors already installed= 262</b>

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent																																			
		<p><b>Solar Power Requirement for 4 Towers SOLAR PV SYSTEM</b> (Providing for emergency lighting of common area (Staircase, lift lobby, basement etc.) for phase-3)</p> <table border="1" data-bbox="687 344 1343 927"> <thead> <tr> <th>Tower No</th> <th>Load - KVA</th> <th>PV Solar Requirements</th> <th>Total Solar PV</th> <th>Space Required in Sq Ft</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>5% of Total power requirement for proposed 4 towers</td> <td></td> <td></td> </tr> <tr> <td>5</td> <td>478.3</td> <td>23.9</td> <td>25 KW</td> <td>3250</td> </tr> <tr> <td>6</td> <td>478.3</td> <td>23.9</td> <td>25 KW</td> <td>3250</td> </tr> <tr> <td>7</td> <td>478.3</td> <td>23.9</td> <td>25 KW</td> <td>3250</td> </tr> <tr> <td>8</td> <td>478.3</td> <td>23.9</td> <td>25 KW</td> <td>3250</td> </tr> <tr> <td>Total</td> <td>1913.3</td> <td>95.7</td> <td>100 KW</td> <td>13000</td> </tr> </tbody> </table> <p>Detailed calculation on solar energy existing and proposed is given in <b>Annexure-4</b>.</p>	Tower No	Load - KVA	PV Solar Requirements	Total Solar PV	Space Required in Sq Ft			5% of Total power requirement for proposed 4 towers			5	478.3	23.9	25 KW	3250	6	478.3	23.9	25 KW	3250	7	478.3	23.9	25 KW	3250	8	478.3	23.9	25 KW	3250	Total	1913.3	95.7	100 KW	13000
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v)	Continuous greenbelt to be made. A detailed report and layout on green belt existing and proposed.	Agreed The project has been well planned to have sufficient open space and green coverage. The green area comprises of evergreen, tall and ornamental trees and ornamental shrubs inside the premises. The green area has been developed over total green area measuring 18192.88 sqm (37.5 %) has already been developed. The biodiversity in the area will improve due to the proposed green cover. Evergreen tall and ornamental trees and ornamental shrubs will be planted inside the premises. and greenbelt plan is attached as <b>Annexure-5</b> .																																			
vi)	Comparative statement for all physical features between existing and proposed expansion.	Comparative statement for all physical features between existing and proposed expansion is attached as <b>Annexure-2</b> .																																			
vii)	Compliance Report to previous EC conditions duly certified by Regional Office, MoEF&CC, Bhubaneswar.	Compliance Report to previous EC conditions are attached as <b>Annexure-6</b> .																																			
viii)	Structural stability from NIT/ IIT with endorsement from BDA as per the bye laws of the later with reference to original approved plan and	Structural stability Certificate attached as <b>Annexure-7</b> .																																			

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	revised approved plan in view of increase in number of floors and building height.	
ix)	Traffic study undertaken as stated be vetted and submitted with decongestion plan as & if necessary.	Traffic study report is attached as <b>Annexure-8</b> .
x)	The PP to submit sabik RoR with kizam, Hal RoR with kissam for the project area to rule out the investment of Forest/DLC land.	Land has been allotted for residential - development under Bhubaneswar Development Authority (BDA). There will be permanent change in land use pattern as mostly homestead land will be used for construction of Residential Building with Retail. Proposed area is coming under residential zone as per BDA plan. Total land requirement for this project is 12 Ac. The land documents given in <b>Annexure-9. Kizam of the plot –Gharabari.</b>
xi)	To submit a Fire Safety Certificate for the operating towers and utilities and Fire Safety recommendation for the remaining construction.	Fire Safety Certificate for the operating towers and utilities and Fire Safety recommendation for the remaining construction is attached as <b>Annexure-10</b> .
xii)	To submit the plan for Ventilation, lightning and air conditioning of lift from lowest basement floor to terrace floor.	All plans are attached as <b>Annexure-11</b> .
xiii)	Provision of solar power for the entire project with location of installation of photovoltaic frames and utilisation of solar power for the common area to be marked in the layout plan.	Attached as <b>Annexure-11</b> .
xiv)	To submit a bio-diversity register for the 12 acre project area as per the provision of biodiversity Conservation Act, 2003 along with a write up on the improvement in conservation of biodiversity during the year 2013 till now.	The project has been well planned to have sufficient open space and green coverage. The green area comprises of evergreen, tall and ornamental trees and ornamental shrubs inside the premises. The green area has been developed over total green area measuring 18192.88 sqm (37.5 %) has already been developed. The biodiversity in the area will improve due to the proposed green cover. Evergreen tall and ornamental trees and ornamental shrubs will be planted inside the premises and greenbelt plan is attached as <b>Annexure-4</b> . <b>Bio diversity report</b> for project site and study area is attached as <b>Annexure-12</b> .
xv)	To submit the Energy	Energy Conservation Report is attached as

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	Conservation efforts made in the project as per bureau of Energy efficiency under Energy Conservation Act, 2002.	<b>Annexure- 13.</b>
xvi)	To submit the original NoC from CGWA VIS-A-VIS the actual consumption of water for the last 10years along with the permission letter and agreement with the State Government Water Resource Department.	Water requirement of the project has met from PHED Supply. Ground water has used as stand by or in emergency purposes. The water supply connection has been invariably metered. Meter has approved or certified by concern Department. The water meter has been installed after getting the permission and being duly tested by the PHED, observing formalities as per Orissa Water Works (ULB) Rules, 1980 and as amended from time to time. Sanction Order for water supply connection from Office of the Sub-Divisional Officer, Bhubaneswar is attached as <b>Annexure-14.</b>
xvii)	To submit the organogram for management of WTP, WWTP, STP, SWM, Hazardous Waste, Greenbelt, DG set emission, Vehicular emission, Safety of Lifts, Fire safety and other safety requirements of the project including Battery rules, DG rules, BMW rule in case of Dispensary/First aid center etc.	Management plan is attached as <b>Annexure-15.</b>
xviii)	To submit the compliance of existing CTE & CTO duly certified by SPCB, Regional office, Bhubaneswar.	Compliance of existing CTE & CTO is attached as <b>Annexure-16.</b>

23. The SEAC in its meeting held on 02.11.2022 decided to take decision on the proposal after site visit of Sub-Committee of SEAC

24. The proposed site was visited by the sub-committee of SEAC on 09.11.2022. Following are the observations of the sub-committee and proponent needs to submit relevant documents as below:

- i) No construction has been made in the proposed phase except the basement. PP and Consultant were present. PP informed that the basement approval for all 3 phases were taken earlier (PP informed to submit document). Similarly, the STP has already been installed for all 3 phases as informed by PP. Thus, calculation sheet justifying the capacity to be submitted.

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- ii) Solar power (roof top) has not been installed for earlier 2 Phases, PP informed that the same was not a requirement while the approval for the earlier 2 phases were taken. However, the solar power installations will be done for the current phase and details will be submitted.
  - iii) A drain is existing as shown by PP, thus NOC from BMC for draining excess treated water to be taken before construction.
  - iv) Stack height to be enhanced as committed in the proposal, as current height is less than Phase 3 building height.
25. The Sub-committee of SEAC recommended EC subject to above conditions and submission of documents /compliances as asked by the committee during presentation.
26. The proponent has submitted the compliance as requested earlier and it has also been mentioned above.
27. The SEAC in its meeting held on 13-01-2023 recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions in addition to the following specific conditions.
- i) **Project Proponent informed that the basement approval for all 3 phases were taken earlier. Similarly, the STP has already been installed for all 3 phases as informed by Project Proponent. Project Proponent shall submit copy of basement approval for all 3 phases and calculation sheet justifying the capacity for all 3 phases before issue of Environmental Clearance.**
  - ii) **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.**
  - iii) **The Proponent shall obtain permission/NOC from Executive Engg (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest drain without which the Proponent will not start construction work. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be**
  - iv) The proponent shall use solar energy atleast to the tune of 5%of total power requirement as proposed.
  - v) To reduce discharge of treated water to open drain, the proponent shall use more water for increased number of trees proposed to be planted in the green belt area & shall also utilize this treated water for car washing, floor washing to minimize the surplus discharge to drain.
  - vi) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
  - vii) The proponent shall Comply to the provision of structural stability certificate as per the bye- law of the Development Authority.

- viii) When the public water supply will be available adjacent to/ in the vicinity of the proposed project in future, the PP shall avail it following due procedure of the Govt if the concerned authority agrees and dispense with the drawl of ground water except one borewell for emergency purpose. The PP shall take up suitably for the purpose with the concerned authority of the Government.
- ix) The PP shall adhere to terms of Agreement with BDA
- x) **All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.**

28. The proposal was placed in the 109<sup>th</sup> meeting of SEIAA for consideration of EC. The Authority deliberated on the matter and observed the following:

- I). (a) As per MoEF & CC, Govt. of India circular F.No. J-11011/618/2010-IA-II(I) dated 30.05.2012, application for expansion project receipt without a certified report of the status of compliance of the conditions stipulated in the environmental clearance for the on-going/existing operation of the project by Integrated Regional Office (IRO) of MoEF & CC, Bhubaneswar, the EC shall not be accepted and placed for consideration before the SEAC. In this case, the certified compliance report of EC condition attached in annexure-6 is not certified by IRO, MoEF& CC, Govt. of India.  
(b) The SEAC is requested to give their considered view on each of the point of EC conditions after examining the certified compliance report of IRO, MoEF & CC.
- II). The project has been granted prior-EC vide no. 1997/SEIAA on dated 24th April 2013 for construction of 12 Towers having total built up area of 1,85,176.33 Sq. mt. (including Basement, for Phase-I & Phase-II) and 132395.7 sqm (Excluding Basement area for Phase-I & Phase-II). Further, the CTO issued vide order no. 2866 with letter no. 1238 dated 30.01.2019 by OSPCB have been granted for the same area. Whereas, the PP has now applied the proposal for expansion of existing-79458.56 Sqm (Excluding Basement) & 112805.24 Sqm (Including Basement)) area to Proposed new built-up area-58788.51 sqm (as expansion). The discrepancy between CTO issued and work completed may be clarified.
- III). The EC dated 24.04.2013 was issued by SEIAA, Odisha for five year based on undertaking that the storm water quantity 770cum/hr. to be discharged through the peripheral drain of M/s Trident Properties. The BDA will acquire and construct the storm water drain of approximate length 180m for which the PP shall bear the cost of the drain as conditions mentioned the BDA Letter no. 109/EM/BDA dated 11.02.2013. The present position and status of the storm water drain may be verified from field.

29. The proponent has clarified to the issues as raised by the SEIAA, Odisha at Para- 28 and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
j)	As per MoEF & CC, Govt. of India circular F.No. J-11011/618/2010-IA-II(I) dated 30.05.2012, application for expansion project receipt without	Certified Compliance Report from IRO, MOEF&CC has been received on 14th March, 2023. PP has confirmed that they will take all effective measures to	Since, this is an ongoing project, the PP has to comply the lapses as

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	<p>a certified report of the status of compliance of the conditions stipulated in the environmental clearance for the on-going/existing operation of the project by Integrated Regional Office (IRO) of MoEF &amp; CC, Bhubaneswar, the EC shall not be accepted and placed for consideration before the SEAC. In this case, the certified compliance report of EC condition attached in annexure-6 is not certified by IRO, MoEF&amp; CC, Govt. of India</p>	<p>abide by all the Stipulated Environmental Conditions mentioned in their Letter dated 14th March, 2023.</p>	<p>pointed out in the certified compliance report as per instruction issued by the MoEF&amp;CC, Govt. of India in their letter dated 14.03.2023. Further, certified compliance is required and PP to submit. Here, SEIAA henceforth should forward the applications to SEAC only if such a document is submitted by PP as this is a requirement in such types of projects. This will avoid delay.</p>
k)	<p>The project has been granted prior-EC vide no. 1997/SEIAA on dated 24th April 2013 for construction of 12 Towers having total built up area of 1,85,176.33 Sq. mt. (including Basement, for Phase-I &amp; Phase-II) and 132395.7 sqm (Excluding Basement area for Phase-I &amp; Phase-II). Further, the CTO issued vide order no. 2866 with letter no. 1238 dated 30.01.2019 by OSPCB have been granted for the same area. Whereas, the PP has now applied the proposal for expansion of existing-79458.56 Sqm (Excluding Basement) &amp; 112805.24 Sqm (Including Basement)) area to Proposed new built-up area-58788.51 sqm (as expansion). The discrepancy between CTO issued and work completed may be clarified</p>	<p>CTO was issued after completion of overall master plan and infrastructure of the project including – WTP, STP, DG, ESS &amp; Green open spaces, though the last 4 towers named- T5, T6, T7 &amp; T8 were built only up to the ground floor plinth level within validity of the original EC. The present extension is sought for the said 4 Towers as the original Environment Clearance was expired due to pending Extension of Time from BDA, which we had received only on December 2021. As per the proposed extension, the overall number of units is reduced from the last CTO received and so the existing infra as commissioned are sufficient to cater for the present proposal also.</p>	<p>Reply of the proponent is convincing.</p>
l)	<p>The EC dated 24.04.2013 was issued by SEIAA, Odisha for five</p>	<p>The stretch of proposed storm water drains up to Trident</p>	<p>The committee visited and</p>

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	<p>year based on undertaking that the storm water quantity 770cum/hr. to be discharged through the peripheral drain of M/s Trident Properties. The BDA will acquire and construct the storm water drain of approximate length 180m for which the PP shall bear the cost of the drain as conditions mentioned the BDA Letter no. 109/EM/BDA dated 11.02.2013. The present position and status of the storm water drain to be intimated</p>	<p>Property is already constructed by KRPL. The stretch of the storm water drain within Trident Property is under construction, cost of which is borne by KRPL as per agreement. The balance stretch between Trident Property and Final discharge point is depended upon acquisition of land by BDA, which is pending. The relevant document and communication between KRPL, Trident and BDA are enclosed for your understanding.</p>	<p>witnessed the drain that was connected to Trident drain and necessary documents including NOC were sought for discharge of storm water from the authority. However, documentary evidence like: agreement with Trident, BDA/BMC letter and its reply giving the consent to deposit the money for the final drain and the status of the same can be asked to PP (if not submitted earlier). The structured drain beyond Trident was to be developed / constructed after land acquisition by BDA/BMC and money to be deposited by PPs on getting the demand for the same. Thus, status of the same may be obtained in the form of documentary evidence instead of one more site visit as it is beyond the scope of the current project site</p>

After detailed discussion, the SEAC reiterates its earlier recommendation for grant of Environmental Clearance with conditions already stipulated earlier in addition to the following conditions:

- a) The proponent shall comply to the lapses as pointed out in the certified compliance report to the earlier EC conditions as per instruction issued by the MoEF&CC, Govt. of India in their letter dated 14.03.2023.

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**B. PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR PATAMUNDA MANGANESE MINE OVER AN AREA OF 43.532 HA. AT VILLAGE: PATAMUNDA, TAHASIL: KOIDA, DISTRICT: SUNDERGARH FOR M/S SUN ALLOYS & MINERALS LTD OF SRI RAJIB LOCHAN MOHANTY – EC (VIOLATION CASE).**

1. M/s. Sun Alloys & Minerals Ltd. for Patamunda Manganese mines over an area of 43.532 Ha. at Village - Patamunda, Tahasil - Koida, District - Sundergarh, Odisha of Sri Rajib Lochan Mohanty (Managing Director).
2. The project falls under category “B” or activity 1 (a) - Mining of Minerals under EIA Notification dated 14th September 2006 as amended from time to time.
3. Patmunda Manganese Mining Lease in village Patmunda of Sundergarh District Odisha was granted over an area of over 81.197 Ha in favour of Sun alloys & Minerals Ltd on 23.10.1991 which was executed on 12.02.1996 for 10 years i.e. till 11.02.2006.
4. This is an existing mine operating since 1996-1997 to 2009 and closed since 2009. As the mining was operating without obtaining prior- environment clearance the project will be appraised for Environment clearance under case of violation.
5. Based on the approved ToR vide letter no. 4301/SEIAA dated 02.04.2022, the EIA/EMP report, Damage assessment and remediation plan and natural and community resource augmentation plan has been prepared by M/s Kalyani Laboratories Private Limited, Bhubaneswar.
6. The public hearing for the Patmunda Manganese Mines of Sun Alloys and Minerals Ltd. conducted on 10.04.2012 at 10.00 A.M. at Madan Mohan High School field, Patmunda Village of Sundergarh district in accordance with the Ministry of Environment & Forest, Govt. of India, EIA Notification No. SO-1533 (E) dated 14th September 2006.
7. As the project is declared as a case of violation, the damage assessment, remediation plan, community and natural resource augmentation plan has been prepared. As per the plant the allocated budget for remediation plan based on the damage assessment due to violation is Rs. 22,38,000.00, Budget due to community and natural resource augmentation plant will be Rs. 43,00,000.00 and penalty due to violation will be Rs.1,83,372.00.
8. First RML application was filed on 04.02.2005 (one year before the expiry of the lease) for 20 years (from 12.02.2006 to 11.02.2026) on a reduced area over an area of 43.568 Ha deleting 37.629 Ha area occupied by tenants and local inhabitants within the executed ML area of 81.179 Ha. Mining operation continued within the ML area till 22.12.2009 under deemed clause of Rule 24 A (6) of MCR 1960. Mining operation within the ML was closed by the DFO, Bonai vide letter No 6264 dt 22.12.2009 for want of forest clearance over an area of 0.036 Ha of DLC forest land.
9. The lessee again deleted 0.036 Ha DLC area from 43.568 Ha of applied RML area and submitted a letter to the Principal Secretary to Government, Department of Steel & Mines, Govt. of Odisha vide letter no. SAML/CO/2010-11/08-06 dated 06.08.2010 along with a fresh map over 43.532 Ha for consideration in respect of renewal of the lease area. The lessee deposited the demanded amount of Rs 2,03,00,894.96 (Rupees two crore three lakh eight hundred ninety-four and ninety six paise only) arising out of the final judgement of the Honourable Apex

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court dated 02,08,17 in the aforesaid Common Cause Matter of WP (C) 114/2014 related to Section 21 (5) of MMDR Act 1957. Based on the order of RA, lessee submitted his request to the state Govt for revocation of the lapsing order on 10.01.19 and 06.03.21 which is under active consideration.

10. The Mining Lease was subsisting as on 12.01.2015, the date on which the MMDR Act, 1957 was amended. As per the provisions of Section 8A (3) read with Section 8A (9) of the amended provisions of the Act, the period of the Mining Lease is deemed to have been extended up to 11.02.2046 (for a total period of 50 years).
11. The application for EC was made by the lessee and public hearing for the said project was conducted on 10.04.2010.
12. The proposal was considered for EC at SEAC, Odisha on 18.10.2012 and Member Secretary State Environment Impact Assessment Authority (SEIAA) Odisha vide Letter No 365/SEIAA dated 27.12.2012 asked to submit the authentic copy of Stage – I Forest Clearance within 12 months for issuance of Environmental Clearance. In reply the lessee submitted a letter to Member Secretary SEIAA vide their letter No SAML/CO/2012-13/03-21 dated 11.03.2013. In this letter the lessee informed that the revised RML area over 43.568 Ha includes 0.036 Ha DLC forest land in south eastern boundary of the lease which has been deleted, retaining the RML applied area of 43.532 Ha. FMCP on 0.036 Ha area which was approved by IBM vide Letter No ORI/BHU/2011-12 Dated 28.10.2011.
13. Replying the above letter of the lessee Member Secretary SEIAA issued a letter (Letter No 726/SEIAA dated 28.04.2014 –to submit the proposal afresh as per EIA Notification 2006.
14. State Pollution Control Board, Odisha accorded Consent to Establish vide their letter No 22809/IND-II-5429 dated 12.11.2012.
15. At the initial stage with reference to the application of the lessee dated 27.03.2006, OSPCB, Bhubaneswar issued consent order for air (Prevention & Control of Pollution) & Water (Prevention & Control of Pollution) vide their letter dated 13.07.2006 for production of manganese ore to the tune of 300 tonnes per month for Air/18B for Water). This was valid upto 31.03.2011.
16. Mining within the ML area started in 1997-98 and continued till 2009-10 and was closed by the DFO, Bonai vide letter No 6264 dt 22.12.2009 (Annexure XIX) for want of forest clearance over an area of 0.036 Ha of DLC forest land. The mine is yet to be re-opened.
17. The Mine was operating since 1997-98 and continued operation till 2009-10 without obtaining Environment clearance. Environment clearance is applicable to the mines under EIA Notification 1994 as well as 2006.
18. Violation has been made by the lessee under E(P) Act, 1986 and the application for ToR has been made under the case of violation.
19. The mining plan approved in 2016-17 and due to lack of violation, this mining plan was lapsed in 2015. The lease area is reduced to 43.532 Ha in the renewal application. Proposed production from the lease area during the revised scheme period from 2016-17 to 2020-21.

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20. Final Mine Closure Plan on 0.036 Ha DLC area was approved vide IBM Letter No FMCP/OTFM/03-ORI/BHU/2011-12 dated 28.10.2011. Certificates obtained under sub rule (2) of rule 29 (A) of MCR 1960 on approved FMCP over 0.036 Ha. Accordingly, a letter was submitted to The Principal Secretary to Government, Department of Steel & Mines, Govt. of Odisha vide letter no. SAML/CO/2010-11/08-06 dated 06.08.2010 along with a fresh map for considering the RML area as 43.532 Ha. As Per Mines & Minerals (Development and Regulation) Amendment Act 2015 the lease shall be extended for a period of forty years i.e., 11.02.2046 (Total lease period is 50 years) w.e. from 12.02.1996.
21. Recent mining plan approved by Indian Bureau of Mines, Bhubaneswar vide letter no: RMP/A/04-ORI/BHU/2021-22, dated 17.06.2021.
22. **Location and Connectivity:** Patmunda Manganese ore Mines over an area of 43.568Ha. located in Patmunda Village, under Sub-division Bonai, Tahsil Koida in Sundargarh District, Odisha. Out of the total lease area 43.568 Ha, 43.532 Ha Govt. non-forest land, and 0.036Ha is Govt. Forest land. Lease area is a part of Survey of India toposheet No 73G/5 and is bounded by the latitudes from Latitude 21° 52' 15.58"N and Longitude 85° 18'16.839"E as per survey. Nearest railway stations is Barbil Railway Station at an distance of 45 Km. Nearest town is Koira is 10km. State capital Bhubaneswar via Jajpur – Keonjhor Road, is at a distance of 318 km where Airport is there. Rourkela Steel City via Lohanipura and Koira – Bhadrāsahi is at a distance of 115 km. Jamsedpur via Chaibasa and Noamundi is 185 km far from the lease area. Paradeep port is at about 310 km and nearest NH is NH 215 at a distance of 6 km from the lease area. Suna River at a distance of 4.5Km. Nearest Reserve Forest is Khajurdihi RF – 4.8km.
23. **Reserves** - The mineable reserve of manganese ore in the lease area is 1,98,538 MT. In the ensuing plan period about 21,734 MT will be exploited. After this plan period balance mineable reserves of 1,77,164 MT of manganese ore will be available. Keeping in view the production of manganese ore @5500 per annum, life of the mine will be 32.21 years or say 33 years after the current plan period. So, total life of the mine will be 33 years including this plan period.
24. Presently there are four existing quarries namely Quarry-1,2,3 and 4. There are seven nos. of existing dumps are present in the lease area.
25. **Method of Mining** - Open cast semi mechanized system of mining is in practice since long to mine the manganese ore deposit adopting a system of bench formation keeping In mind the quality, cost, safety and conservation of mineral. No change in method of mining has been envisaged during the proposed review period. Quarry-2 and 4 shall be developed during the proposed review period (2022-2023 to 2025-26) from the insitu ore zone with lateral and depth ward extension. There is no regular need of blasting in the over burden and mineralized zone for development and ore production. Once the mineralized zone is exposed, low scale drilling shall be required which will be done by rock drill machine attached with compatible compressor for loosening the ore zone formation.
26. **Production Details:** The different types of ore production year-wise is given as follows:

Year	Total ore(MT)	Saleable	Total (MT)	Mineral	Reject	Total (MT)	ROM
2021-22	52 numbers diamond core drilling under exploration programme						

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Year	Total ore(MT)	Saleable	Total (MT)	Mineral Reject	Total (MT)	ROM
2022-23	5346		0		5346	
2023-24	5445		0		5445	
2024-25	5434		0		5434	
2025-26	5509		0		5509	
Total	21734		0		21734	

27. **Waste management** - A total quantity of 145245 m<sup>3</sup> waste (generated from the lease area + Re-handled existing waste dump) will be accommodated on the proposed dump over an area of 2.014 Ha. At the end of the conceptual period the total waste over the proposed dump will be utilized for backfilling of the exhausted quarries. Conceptually, 7272 MT of mineral rejects will be generated. These mineral rejects will be stored in the earmarked site covering an area of 0.18 Ha. These mineral rejects shall be blended as far as practicable as per the demand of buyers.
28. **Green Belt** - During the period of operation of lease the lessee has planted nos of saplings. During the existing plantation of 1995 saplings. In the ensuing scheme period, an area of 2.35 Ha. along the safety zone has been proposed for plantation of 5900 saplings.
29. **Water Requirement** - Water consumption will be limited to 20 KLD which consist of 5KLD for domestic (Permission obtained from CGWB), 5 KLD for dust suppression, green belt development purpose. Water for drinking / domestic use will be sourced from the ground water while water for non-domestic use such as plantation, water sprinkling etc. will be sourced from water harvesting ponds.
30. **Power Requirement** - Electricity is available in the M.L area. As the mine is operated in day shift only, there is no necessity of power for illumination at mines. Energy required: Diesel 800 Ltr/ Day.
31. A total no. of 68 people will be employed in the mines (departmentally/contractually) which includes 6 managerial and supervisory staff, High Skilled and Skilled staff 12 nos., and 50 nos. of workers phase wise manner.
32. Baseline study was conducted during October – December, 2021. The observations are Ambient air quality monitoring carried out in 8 different sampling locations. During the study period, the concentration of PM<sub>10</sub> in the project site varies from 46 to 57µg/m<sup>3</sup> and from 46.4(Ramka Village) to 85.5(Koida) µg/m<sup>3</sup> in the nearby villages. The average value of PM<sub>2.5</sub> in the project site is 23 to 25µg/m<sup>3</sup> and the average of PM<sub>2.5</sub> varies from 23.3 (Podadihi) to 44.5(Koida) µg/m<sup>3</sup> in the surrounding villages. Other parameters like, SO<sub>2</sub>, NO<sub>x</sub>, CO, Ozone, are within the prescribed limit of NAAQS standard as prescribed by CPCB.
33. The ground water samples were collected from 8 different sampling stations and analyzed as per IS 10500:2012 to assess the portability of the ground water.
34. As Per the data it has been observed that the pH of the ground water varies 6.50 to 6.80, Chlorides Ranges From 12.0 to 44 Mg/L, Sulphates value found to be between 2.4 to 20.9 mg/l, Fluoride Ranges low in lease area i.e. 0.12 to 0.39 mg/l, Hardness varies from 32-168 mg/l, and Total dissolved solid 40-210 mg/l.
35. The ambient noise levels were measured in 8 sampling locations. In the project site the day time noise level is 29.5 dB (A) and the night time noise level is 22.4 dB (A). The maximum

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noise level is 50.4 dB (A) during the day time at Koida Village and minimum noise level is 29.5 dB (A) during the day time at lease area. The maximum noise level is 42.6 dB (A) during the night time at Koida Village and minimum noise level is 22.4 dB (A) during the night time at lease area. The noise level is found to be maximum in Koida Village.

36. The cost of Project is ` 295 lakh. The allocated capital EMP cost for the project will be Rs. 67.5 Lakhs and 17.6 Lakhs allocated as recurring EMP cost.
37. The Environment Consultant **M/s Kalyani Laboratories Pvt. Ltd. Bhubaneswar** along with the proponent made a detailed presentation on the proposal before the Committee on 03.08.2022.
38. The SEAC in its meeting held on dated 03-08-2022 decided to take decision on the proposal after receipt of certain information / documents from the proponent.
39. 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
i)	Compliance to NEERI recommendation for Manganese mine expansion to be submitted.	Lessee will follow the Recommendations of CSIR-NEERI Report on "Carrying Capacity Study for Environmentally Sustainable Iron and Manganese Ore Mining Activity in Keonjhar, Sundargarh and Mayurbhanj district of Odisha State" as applicable for the mines. However, point wise compliance of the NEERI conditions has been attached as <b>Annexure 1</b> .
ii)	Detailed plan for Dump management and dust suppression and mitigation measures suggested towards issues raised in Public Hearing.	Details of Dump management and dust suppression and mitigation measure has been attached as <b>Annexure 2</b> .
iii)	Details of Public Hearing with proposed redress point wise to be submitted.	Details of public hearing and time bound action plan in compliance to public demand is attached as <b>Annexure 3</b> .
iv)	Safety measures to protect Damsala Nala.	Damsala nala is not located near the project site as the project is located in Sundargarh district and Damsala nala is flowing near Sukinda. The nearest nala is Suna Nadi which is flows at 4.5 Km from the project and there is no anticipated impact of the project on Suna Nadi as the maximum impact of the mines will be limited up to 500m from the source.
v)	Cross-sectional dimension of retaining wall and garland drain shall be furnished.	Dimension of the retaining wall and garland drain is given in <b>Annexure 2</b> .
vi)	Conversion of agricultural lands to mining use with help of concerned Authority Revenue Department.	The land has been allocated for mining operation.
vii)	Specific measures taken Manganese poisoning in that area.	Details of measures taken to mitigate manganese poisoning due to mining

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		activity is given as <b>Annexure 4</b>
viii)	Reclamation Plan for Dump after conceptual plan.	Dump reclamation plan has been elaborated in <b>Annexure 2</b> .
ix)	Budget details of EMP.	Detail EMP budget is attached as <b>Annexure 5</b> .
x)	Details of DLC land surrendered and the same acceptance Letter by IBM to be submitted.	The DLC land of 0.036 Ha has been surrendered by the lessee and certificate has been issued by IBM. Retained area of the lease is 43.532 Ha. Copy attached as <b>Annexure 6</b> .
xi)	Native/local species should be planted which has survival rate is 90%. And increase the greenbelt plantation within lease area.	Detail plantation plan is attached as <b>Annexure 7</b> .
xii)	Status of legal case filed if any under section 19 of Environment (Protection) Act, 1986 for violation.	The case against the lease under section 19 of Environmental (Protection) Act, 1986 for violation is under process at state govt.
xiii)	Conversion of Agriculture land for use of mining purpose.	For operation of mines surface right must be obtained from district administration where the land conversion is a part of the process as and when required after obtaining EC. However, this is an existing mine and having surface right for 7.50 Acre, 7.88 Acre & 15.53 Acre, Total 30.91 Acres of area is as enclosed as Annexure 8. The area under surface right is being / will be used for mining operation. Further, Surface right area will be accorded by the district administration as & when required with due process which will include land conversation.

40. The SEAC observed the following:

- a) The proposal was considered by the State Level Expert Appraisal Committee (SEAC), Odisha in its meeting held on 05.01.2022 for appraisal of the proposal for ToR in pursuance of the MoEF&CC, Govt. of India Notification dated 14<sup>th</sup> March, 2017. The SEAC, after deliberations on the proposal in terms of the provisions of the Notification dated 14<sup>th</sup> March, 2017, confirmed the case to be of violation of the EIA Notification, 2006 and recommended for the following:
- (i) The State Government to take action against the project proponent under the provisions of section 19 of the Environment (Protection) Act, 1986, and further no Consent to Operate to be issued till the project is granted Environmental Clearance.
  - (ii) The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of Environmental Clearance. The quantum is recommended by the SEAC based on EIA report and finalized by the regulatory authority i.e. SEIAA,

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Odisha. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the SEAC and approval of the regulatory authority i.e. SEIAA, Odisha.

- (iii) Public hearing has already been conducted for the proposal earlier on 10.04.2012, a copy of which is also furnished with EIA/EMP. For this reason, conducting a fresh Public Hearing has been exempted.
- b) EIA/EMP study report has been prepared by a NABET Accredited / NABL Accredited Consultant namely **M/s Kalyani Laboratories Pvt. Ltd. Bhubaneswar**.
- c) Detailed assessment of Ecological Damage, Remediation Plan and Natural and Community Resource Augmentation Plan has been incorporated in the EIA report.
- d) An amount of ` 43,00,000.00/- (Rupees Forty three lakh only) has been estimated in the EIA / EMP report towards the cost of assessment of Environmental / Ecological damage due to violation as well as Natural and Community Resource Augmentation Plan.
- e) There is no specific guideline issued by the MoEF&CC, Govt. of India for assessment of Environmental and Ecological Damage as well as estimation of cost for remediation plan as well as Natural and Community Resource Augmentation Plan.
- f) In the absence of any guidelines, the cost as suggested by the proponent in the EIA report above to be taken into account for remediation plan as well as Natural and Community Resource Augmentation Plan. However, the proponent has to abide by the guidelines if issued by the MoEF&CC, Govt. of India in future and accordingly the proponent has to comply. To this effect, they have to submit an undertaking in form of a legal affidavit.
- g) No record is available in the file about initiation of legal action against the project proponent by the State Govt./SPCB under the provisions of section 19 of the Environment (Protection) Act, 1986 for violation of the EIA Notification, 2006. To this effect, they have to submit a legal affidavit that no legal action is either initiated or pending against them.
41. The SEAC in its meeting held on 05-11-2022 recommended for grant of Environmental Clearance for production of 5509 Ton/Annum of Manganese over mining lease area of 43.532 Ha. at Village - Patamunda, Tahasil - Koida, District - Sundergarh, Odisha with the following specific conditions in terms of the provisions of the MoEF&CC, Govt. of India notification dated 14<sup>th</sup> March, 2017 and SoPs for violation cases issued by the MoEF&CC, Govt. of India in addition to the stipulated conditions. **However, the Environmental Clearance shall be issued by the SEIAA after receipt of relevant bank guarantee as stated above.**
- (i) The SEAC recommended for an amount of ` 43,00,000.00/- (Rupees Forty three lakh only) towards Remediation plan and Natural and Community Resource Augmentation plan as the proponent has gone for excess production of chromite Ore without prior Environmental Clearance under EIA Notification, 2006.
- (ii) The project proponent shall be required to submit a bank guarantee of an amount of ` 43,00,000.00/- (Rupees Forty three lakh only) towards Remediation plan and Natural and Community Resource Augmentation plan with the State Pollution Control Board, Odisha prior to the grant of Environmental Clearance.
- (iii) The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the SEAC, Odisha and approval of the regulatory authority (i.e. SEIAA, Odisha).

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- (iv) The SEIAA, Odisha may consider to request to the Govt. in F&E Deptt., Govt. of Odisha to take action against the project proponent under the provisions of section 19 of the Environment (Protection) Act, 1986 for violation of the EIA Notification, 2006. Environmental Clearance is to be issued after initiation of legal action against the project proponent.
- (v) The proponent has to abide by the SoPs for violation cases issued by the MoEF&CC, Govt. of India.
- (vi) Following specific conditions to be stipulated in Environmental Clearance:
- (a) Haulage road shall be developed and maintained perennially and perpetually by the proponent in consultation with the concerned authority of the Govt.
- (b) CER related issues as per MoM of public hearing held on 10.04.2012 may be prescribed as special condition in EC.
42. The proposal was placed in the 103<sup>rd</sup> meeting of SEIAA for consideration of EC. The Authority deliberated on the matter and observed the following:
- ADS After going through the EIA/EMP report, the Authority made the following observation:
- a) The cost of EMP plan shall be separate from the remedial plan and Natural & Community Resource Augmentation Plan.
- b) The certificate of turn over should be obtained from certified Chartered Accountant (CA).
- Further, the authority decided to refer back the proposal to SEAC for re-examination in the light of MoEF&CC, GoI SOP dated 07.07.2021 in regard to amount of penalty to be imposed, amount of bank guarantee to be submitted for remedial plan and Natural & Community Resource Augmentation Plan for the violation involved.
- i) The SEAC decided to take decision on the issues as requested by the SEIAA, Odisha after receipt of clarification from the proponent about the amount of penalty to be imposed with justification as per the Standard Operating Procedure (SoP) of MoEF&CC, Govt. of India issued Vide OM no. F.NO. 22-21/2020-IA.III, dated 07.07.2021.

  
Member Secretary, SEAC

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

**Stipulated Conditions:**

1. The project proponent should carry out River bed sand mining manually by engaging local laborers in force to check over exploitation of sand at the source.
2. Any change in the plan or quantity to be produced shall require prior approval of SEIAA.
3. There shall be a 'no working zone' to protect the embankment on both sides, road or rail bridge in the vicinity, if any, dam, weir, water intake structure of irrigation or drinking water project, or any cross-drainage structure. 10 % of the width of river shall be left intact along the embankments on both sides as 'no mining zone'. Further, no mining shall be allowed within 200 m of any existing structures dam, weir, water intake structure of irrigation or drinking water project, or any cross-drainage structure. In case of River Bridge, this no mining zone shall extend upto a minimum stretch of 250 meters from the bridge on the upstream side and 500 meters on the downstream side. The lease area shall be accordingly curtailed to carve out the actual sand mining area within the leasehold. Exact map of the lease area, and the 'no mining zone' shall be drawn to scale, showing the DGPS coordinates of all corner points, and the location of the bridge, embankment, extraction route & other structures; and such map has to be submitted to SEIAA by the project proponent through the Tahasildar within three months of the date of issue of the EC. The quantum of sand allowed to be extracted will be worked out on the basis of the actual working area.
4. The lease area and the actual working area shall be demarcated on the ground by erecting durable masonry /concrete pillars by the project proponent.
5. The project proponent shall take prior statutory and regulatory clearance as required from the concerned authorities in respect of the project, before carrying out any operation.
6. Mining is not permissible within the water channel or stream flow area. No stream shall be diverted for the purpose of mining and no natural water course shall be obstructed. The mining or any ancillary activity shall not in any way disturb the flow pattern of the river water during the non-monsoon period. There shall be no sand mining in the river during the rainy season or when there is flow of water in the river.
7. Sand mining operations shall not affect the existing sources for irrigation / drinking water / industrial purpose.
8. The natural sand dunes, if any, near or surrounding the lease area shall not be disturbed.
9. No transportation of the minerals shall ordinarily be allowed on any road passing through villages/habitations/forest land without prior explicit permission. Transportation

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

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

18. River Bank stabilization shall be made through stone patching. Plantation of adequate number native species on river banks and both sides of haulage roads shall be made.
19. Since NH200, Kuccha Road and temple are only at a distance of 800 mtr, 570 mtr and 500 mtr respectively, all traffic safety measures shall be taken to avoid any kind of accidents.
20. Bio - toilet provision shall be made.
21. As raised during public Hearing and committed by PP, Loknathpur Sasan village road shall not be used for transportation of sand.
22. Stone patching on river bank with plantation in-between and the ramp construction shall be done in consultation with and advice of concerned W.R.Deptt, Government of Odisha.
23. Necessary sprinkling on Haulage Road and Avenue plantation shall be done.
24. At the end of mine closure, the proponent shall immediately remove all the sheds put up in the quarry and all the equipment in the area before closure of the quarry.
25. The conditions stipulated in the environmental clearance will be closely monitored on the ground by the lease granting authority, i.e. the Tahasildar, who shall ensure compliance of the stipulated conditions and take corrective measures promptly in case of any non- compliance and also ensure that the project proponent submits quarterly compliance reports.
26. The concerned Regional Office of the MoEF&CC/ SPCB, Odisha shall periodically monitor compliance of the stipulated conditions as applicable for this project. The project authorities should extend full cooperation to the MoEF&CC officer(s)/SPCB officer(s) by furnishing the requisite data / information / monitoring reports.
27. A copy of the clearance letter shall be sent by the proponent to concerned Gram Panchayat /Panchayat Samiti /Zilla Parisad /Municipal Corporation / Urban Local Body as the case may be.
28. Project proponent shall obtain Consent to Operate from the OSPCB and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the State Pollution Control Board.
29. The SEIAA, Odisha may revoke or suspend this EC, if implementation of any of the above conditions is not satisfactory. The SEIAA, Odisha reserves the right to alter /modify the above conditions or stipulate any further condition in the interest of environment protection.
30. The Project Proponent (lease holder) shall inform the SEIAA of any change in ownership of the mining lease. In case, there is any change in ownership or mining lease is transferred, then mining operation can be carried out only after transfer of EC as per provisions of the para 11 of EIA Notification, 2006, as amended from time to time.

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

**CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE OF M/s MY HOME INDUSTRIES PVT. LTD FOR GREENFIELD PROJECT FOR INSTALLATION OF CEMENT GRINDING UNIT OF CAPACITY 3.0 MTPA (1.5 MTPA IN PHASE - 1 & 1.5 MTPA IN PHASE - 2) AT VILLAGE – BYREE, TAHASIL – DARPAN, DISTRICT – JAJPUR, ODISHA OF SRI SURESH B - EC**

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**I. Statutory compliance**

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report, (incase of the presence of schedule-1 species in the study area)
- iv. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- v. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- vi. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.
- vii. The construction and demolition wastes to be generated from the proposed project shall be disposed of in accordance with the provisions of "Construction & Demolition Wastes Management Rules 2016".
- viii. Municipal Solid Waste shall be disposed off as per the Solid Waste Management Rules, 2016 and amendment thereafter.

**II. Air quality monitoring and preservation**

- i. The project proponent shall install 24x7 Continuous Online Emission Monitoring System at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25<sup>th</sup> August, 2014 (Cement) and subsequent amendment dated 9<sup>th</sup> May, 2016 (Cement) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.

- iii. The project proponent shall install system carryout to Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO<sub>2</sub> and NO<sub>x</sub> in reference to SO<sub>2</sub> and NO<sub>x</sub> emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
- iv. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to the SEIAA, Odisha, Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six- monthly monitoring report.
- v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- vi. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- vii. Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.
- viii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- ix. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash.
- x. Provide wind shelter fence and chemical spraying on the raw material stock piles and have separate truck parking area and monitor vehicular emissions at regular interval.
- xi. The proponent shall provide designated parking space, both inside and outside the plant to avoid traffic congestion and conflict.
- xii. The proponent shall not use pet coke as fuel in Hot Air Generator (HAG).
- xiii. The proponent shall install permanent water sprinklers either on internal roads or dust prone area at loading-unloading, transfer, transportation inside the plant to control fugitive emission.

### **III. Water quality monitoring and preservation**

- i. The project proponent shall install Continuous Online Effluent Monitoring System with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25<sup>th</sup> August, 2014 (Cement) and subsequent amendment dated 9<sup>th</sup> May, 2016 (Cement) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.

- iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to SEIAA, Odisha, Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- iv. All the treated wastewater shall be recycled and reused in the process and/or for dust suppression and green belt development and other plant related activities etc. No wastewater shall be discharged outside the factory premises and 'Zero Liquid Discharge (ZLD)' shall be adopted.
- v. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- vi. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
- vii. The project proponent shall practice rainwater harvesting to maximum possible extent.
- viii. Water meters shall be provided at the inlet to all unit processes in the cement plant.
- ix. The project proponent shall make efforts to minimize water consumption in the cement plant complex by segregation of used water, practicing cascade use and by recycling treated water.

#### **IV. Noise monitoring and prevention**

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

#### **V. Energy Conservation measures**

- i. Provide solar power generation on rooftops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly. The proponent shall use Solar / Renewable energy of 5 % of the expected actual power requirement.
- ii. Provide the project proponent for LED lights in their offices and residential areas.
- iii. Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards.

#### **VI. Waste management**

- i. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Trans-boundary Movement) Rules, 2016.
- ii. Garbage / food waste from Colony, Canteen & Guest House shall be used for vermicomposting and to be used as manure for green belt development.



- iii. Ash generated from Hot Air generator (HAG) and dust generated from APC Devices shall be completely reused in Cement manufacturing process. Spent oil and batteries shall be sold to authorized recyclers / re-processors only.
- iv. STP sludge shall be used as manure for greenbelt development / plantation.

**VII. Green Belt**

- i. Green belt shall be developed in an area equal to 33% (as proposed) of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
- ii. The proponent shall make plantation in the gap area to have uniformity alongside the boundary / periphery of the project including developing a suitable nursery as well.
- iii. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

**VIII. Public hearing and Human health issues**

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The PP shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- iii. The proponent shall comply to the CER related issues raised in the proceedings of the public hearing held on 06th March 2019.
- iv. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- v. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

**IX. Corporate Environment Responsibility**

- i. The project proponent shall comply with the provisions contained in MoEF&CC, Govt. of India OM vide F.No. 22-65/2017-IA.III, dated 1<sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the SEIAA, Odisha as well as MoEF&CC as a part of six-monthly report.

- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the SEIAA, Odisha, Regional Office, MoEF&CC, Govt. of India, Bhubaneswar along with the Six-Monthly Compliance Report.
- v. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- vi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants shall be implemented.

**X. Miscellaneous**

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the State Level Expert Appraisal Committee.
- x. No expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Odisha.
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The SEIAA, Odisha may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The SEIAA, Odisha reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of the MoEF&CC, Govt. of India, Bhubaneswar shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

**CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S RUNGTA MINES LTD. FOR THE JUMKA PATHIRIPOSHI PAHAR IRON ORE BLOCK FOR A TOTAL EXCAVATION OF 3.98 MTPA (ROM IRON ORE: 3.35 MTPA + WASTE: 0.63) BY OPENCAST MECHANIZED METHOD, OVER AN MINING LEASE AREA OF 158.509 HA.(CONSISTING OF GOVT. FOREST LAND - 156.978 HA AND PRIVATE LAND - 1.531 HA.) LOCATED IN BATAGAON, KENSARA OF LAHUNIPARA TAHASIL OF SUNDARGARH DISTRICT AND VILLAGE – KADAKALA, BANSPAL TAHASIL OF KEONJHAR DISTRICT, ODISHA OF SRI HIRAK MAZUMDER - EC**

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**(I) Statutory compliance**

- (i) This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
- (ii) The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.
- (iii) The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.
- (iv) This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project,
- (v) This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the project.
- (vi) Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board.
- (vii) The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.
- (viii) The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made thereunder in respect of lands which are not owned by it.
- (ix) The Project Proponent shall follow the mitigation measures provided in MoEF&CC's Office Memorandum No. Z-I1013/57/2014-IA.II (M), dated 29<sup>th</sup> October, 2014, titled "Impact of mining activities on Habitations-Issues related

to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area”.

- (x) The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.
- (xi) A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
- (xii) State Pollution Control Board shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
- (xiii) The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board and web site of the Ministry of Environment, Forest and Climate Change ([www.environmentclearance.nic.in](http://www.environmentclearance.nic.in)). A copy of the advertisement may be forwarded to the concerned MoEF&CC Regional Office for compliance and record.
- (xiv) The Project Proponent shall inform the MoEF&CC/SEIAA, Odisha for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

## **(II) Air quality monitoring and preservation**

- (i) The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>2</sub>, CO and SO<sub>2</sub> etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.
- (ii) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM<sub>10</sub> and PM<sub>2.5</sub> are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/

machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/ Central Pollution Control Board.

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

- (i) In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF&CC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
- (ii) Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- (iii) Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- (iv) The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-a-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEF&CC / SEIAA, Odisha. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data be sent regularly to Ministry of Environment, Forest

and Climate Change and its Regional Office, SEIAA, Odisha, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

- (v) Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J-20012/1 /2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
  - (vi) The project proponent shall construct retaining wall and settling pond within the lease area. Further, check dams shall be constructed at strategic locations in which rain water passes in rainy season. Finally, the excess supernatant after sedimentation shall be allowed to spill away through stone pitch structure to the nearby valley.
  - (vii) De-silting of agricultural lands in buffer zone and beyond including nearby Nalas/rivers perennially periodically and perpetually caused due to wash up of minerals/OB/dumps shall be done as per SOP submitted. A legal affidavit shall be submitted within 6 months from the date of issue of Environmental Clearance to this effect with periodicity of de-silting.
  - (viii) Detail design of the existing retaining wall and the proposed for the expansion from a chartered Civil Engineer shall be submitted within 6 months from the date of issue of Environmental Clearance to ensure that no silt after wash up is escaped from the core / buffer zone of the mines.
  - (ix) Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office, MoEF&CC annually.
  - (x) Industrial waste water (workshop and waste water from the mine) should be properly collected and treated in an ETP as proposed so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.
  - (xi) The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board.
- (IV) Noise and vibration monitoring and prevention**
- (i) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.

- (ii) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.
- (iii) The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The worker engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

**(V) Mining Plan**

- (i) The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.
- (ii) The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.
- (iii) The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-a-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office / SEIAA, Odisha.



**(VI) Land reclamation**

- (i) The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.
- (ii) The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.
- (iii) The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.
- (iv) The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
- (v) The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha.
- (vi) Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and topsoil / OB / waste dumps to prevent runoff of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.
- (vii) Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the comers of the garland drains.
- (viii) The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical

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

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

**(VII) Transportation**

- (i) No Transportation of the minerals shall be allowed in case of roads passing through transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.
- (ii) The Main haulage road within the mine lease should be provided with a permanent water arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.
- (iii) Traffic management shall be done as per recommendation of Traffic Management Study Report.
- (iv) The Project Proponent shall provide parking plaza for the heavy vehicles within the lease area as recommendation of NEERI.

**(VIII) Green Belt**

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

approved mine plan.

- (ii) The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.
- (iii) The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.
- (iv) The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.
- (v) And implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.

**(IX) Public hearing and human health issues**

- (i) The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEF&CC Regional Office and DGMS on half-yearly basis.
- (ii) A commitment in form of an undertaking for periodical occupational health checkup of the employee and the local people shall be done through an occupational health expert as per the detailed action plan submitted with the proposal within 6 months from the date of issue of Environmental Clearance.
- (iii) The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment

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

- (iv) The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x 14 inches and of good quality).
- (v) The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities, (c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1), Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.
- (vi) The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.

- (vii) Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.
- (viii) The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.
- (ix) Issues raised and recorded in proceedings of public hearing w.r.t. environment / pollution / CER shall be complied by the Mining Authority as per OM F. No. 22-65/2017-IA.III, dated 30.09.2020 of MoEF&CC, Govt. of India.

**(X) Corporate Environment Responsibility (CER)**

- (i) The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by SEAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.
- (ii) Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEF&CC and its concerned Regional Office / SEIAA, Odisha.

**(XI) Miscellaneous**

- (i) The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.
- (ii) The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- (iii) The project proponent shall establish a solar power plant with 30KVA capacity within the lease area as proposed.
- (iv) The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MoEF&CC & its concerned Regional Office, SEIAA, Odisha, Central Pollution Control Board and State Pollution Control Board.

- (v) A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.
- (vi) The proponent shall comply all the specific conditions as recommended by CSIR-NEERI on carrying capacity study (as applicable) in time bound manner as proposed.
- (vii) The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
- (viii) The project proponent shall augment infrastructure on drinking water, health care and education in nearby villages as per time bound action plan submitted.
- (ix) The project proponent shall obtain permission from DGMS under 106(2b) to carry out blasting operation within the lease area.
- (x) Fe grade -55 and +45 to be attempted to use by blending with higher grade.
- (xi) The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.
- (xii) Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

**CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR KIMS MEDICAL COLLEGE & HOSPITAL, OVER AN AREA 7.795 HA. SQM. PLOT NO: 24,25,12/A, 12/C, 14/A & 14/B, MOUZA: PATIA, TAHASIL: BHUBANESWAR, DIST: KHURDA OF SRI RABINDRA NATH DASH - EC.**

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**PART A - SPECIFIC CONDITIONS:**

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc. as per National Building Code including protection measures from lightning etc.
3. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
4. The project proponent shall ensure that the guidelines for building and construction projects issued vide this Ministry's OM NO.19-2/2013-IA.III dated 9th June, 2015, are followed to ensure sustainable environmental management.
5. Provision for electric point at each and every parking location for e- vehicle charging etc. shall be provided.

**TOPOGRAPHY AND NATURAL DRAINAGE**

6. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape and other Sustainable Urban Drainage Systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
7. NOC from drainage department for discharge of treated water to readymade municipality drain shall be obtained.

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

8. As proposed, fresh water requirement from Ground water / Bore well shall not exceed 760 KLD.
9. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
10. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.

11. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
12. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
13. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
14. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
15. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. As proposed 61 (Sixty-One) nos. of rain water harvesting recharge pits shall be provided.
16. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawal of water.

#### **SOLID WASTE MANAGEMENT**

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



## **SEWAGE TREATMENT PLANT**

24. Sewage shall be treated in STP of capacities 400 KLD. The treated effluent from STP shall be recycled/re-used for flushing, gardening and washing purpose. Surplus treated waste water shall be discharged to the drain provided by BMC for this project.
25. Clinical waste water shall be treated in ETP of capacity 170 KLD.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point.
27. No sewage or untreated effluent water would be discharged through storm water drains.
28. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
29. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

## **ENERGY**

30. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
31. Energy conservation measures like installation of CFLs / LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
32. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 2-5% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher. Follow super ECBC requirement of ECBC 2017 and provide compliance report.
33. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

34. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
35. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.

### **AIR QUALITY AND NOISE**

36. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
37. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
38. **Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.**
39. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
40. For indoor air quality the ventilation provisions as per National Building Code of India shall be provided.
41. Ambient noise levels shall conform to residential standard both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

## **GREEN COVER**

42. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m<sup>2</sup> of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed 18250.39 Sq.mts of the plot area shall be provided for green area development.

## **TOP SOIL PRESERVATION AND REUSE**

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

## **TRANSPORT**

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

## **ENVIRONMENT MANAGEMENT PLAN**

48. An Environmental Management Plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. A dedicated Environment Monitoring Cell with defined functions and responsibility shall be put in place to implement the EMP. The environmental cell shall ensure that the environment infrastructure like Sewage Treatment Plant, Landscaping, Rain Water Harvesting,

Energy efficiency and conservation, water efficiency and conservation, solid waste management, renewable energy etc. are kept operational and meet the required standards. The environmental cell shall also keep the record of environment monitoring and those related to the environment infrastructure.

## **OTHERS**

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

## **PART B – GENERAL CONDITIONS**

1. A copy of the Environmental Clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.
2. The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to the SEIAA, Odisha and MoEF&CC, Govt. of India and its concerned Regional Office.
3. Officials from the Regional Office of MoEF&CC, Bhubaneswar who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection.
4. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA, Odisha.
5. The SEIAA, Odisha reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the

environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

6. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
7. These stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and the EIA Notification, 2006.
8. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the SEIAA, Odisha. The advertisement shall be made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of MoEF&CC, Bhubaneswar.
9. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
10. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
12. The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC by E-mail.