

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE, ODISHA HELD ON 19TH JUNE, 2023**

The SEAC met on 19th June, 2023 at 10:30 AM by Virtual Mode (VC) through Video Conferencing in Google Meet under the Chairmanship of Sri Sashi Paul. The following members were present in the meeting.

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| 1. Sri Sashi Paul | - | Chairman (through VC) |
| 2. Dr. K. Murugesan | - | Member Secretary |
| 3. Dr. Rabi Narayan Patra | - | Member (through VC) |
| 4. Dr. Chittaranjan Panda | - | Member |
| 5. Prof. (Dr.) H.B. Sahu | - | Member |
| 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) |
| 11. Dr. A.K. Sahu | - | Member (through VC) |

CONSIDERATION OF OLD PROPOSALS (COMPLIANCE RECEIVED):

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

ITEM NO. 01

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. AVIRA DISTILLERY PRIVATE LIMITED FOR GRAIN AND MALT BASED DISTILLERY PLANT PROJECT FOR OF 30 KLPD ALONG WITH 1.5 MW CO-GENERATION POWER PLANT LOCATED AT VILLAGE-BARAPADA, P.O. GARUDAGAON TANGI, DISTRICT – CUTTACK, ODISHA OF SRI KISHORE KUMAR MAHANTA - EC

1. This proposal is for environmental clearance of M/s. Avira Distillery Private Limited for grain and malt-based distillery plant project for of 30 KLPD along with 1.5 MW co-generation power plant located at Village-Barapada, P.O. Garudagaon Tangi, District – Cuttack, Odisha of Sri Kishore Kumar Mahanta.
2. **Category:** This project falls in Category “B1” under Schedule of item 5(g) - Distilleries (Grain based / non-molasses based for Non-EBP) as per the EIA Notification 2006 and its amendments thereof.
3. **Project details:** M/s Avira Distillery (P) Limited has taken over a 30 KLPD Grain and Malt Based Distillery Plant along with 1.5 MW Co-generation Power Plant which has been erected by earlier proponent located at Village - Barapada, P.O. Garudagaon Tangi, District - Cuttack, Odisha. The earlier owner of project was M/s S R Distilleries Pvt Ltd. It had started the construction but due to financial condition they could not complete the construction of the project. Approx. 75% of the work has been completed as per the earlier granted EC and later all activities have been suspended because, the said company defaulted in payment of Bank Loan. Bank had auctioned their factory for clearances of dues vide e- auction dated 27th July 2022. M/s Avira Distillery (P)

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Ltd participated in the said e-auction and became the highest bidder. In the above backdrop, M/s Avira Distillery Pvt. Ltd. deposited 25% of the auction amount and was issued "Sale Confirmation Letter" dated 28th July 2022 by the Punjab National Bank, being the consortium leader. Due to financial condition, PP was unable to complete construction within validity period as per earlier EC granted, approx. 75% of the construction work was completed at the project site and then the plant got shut down. Later it was taken over by Avira Distillery (P) Ltd, present owner by undergoing.

4. Earlier Environment Clearance was granted from the MOEF&CC vide letter No – J-11011/463/2010-IA II (I), dated: -20.04.2012, in the name of M/s SR Distillery Private Limited.
5. S R Distilleries Pvt. Ltd. had also taken CTE and CTO from Odisha State Pollution Control Board. Copy of Environmental Clearance, CTE from SPCB, Odisha Vide letter no.-21803, dated-26.12.2011 and CTO Vide letter no.-4187 dated- 17.03.2015.
6. **ToR details:** The project has been granted ToR vide letter no. SIA/OR/IND2/405949/2022 dated: 27.01.2023.
7. **Public hearing details:** The SEIAA had exempt public hearing as per MoEF&CC, Govt. of India amended EIA Notification vide S.O.1247 (E), dated 18th March 2021 as they have already completed construction work more than 50% during validity period of Environmental Clearance.
8. **Details of Previous Public hearing made for this project:** It was conducted on 10.06.2011 at Barapada project U.P. school. Issues raised during the public hearing are pollution control measures, providing employment to local people, up gradation of nearby schools, drinking water facility and ambulance services, road development and maintenance work in locality & villages, concern about health of local people & arrange health check-up camp. A budget of 84 Lakhs has been allotted for action plan of public hearing.
9. **Location and connectivity:** The project site is located at plot no. 450/558, 451, 452,453, Village-Barapada, P.O. Garudagaon Tangi, District -Cuttack, Odisha. The coordinates of project site are Latitude: 20°35'57.21"N & Longitude: 85°42.28"E. The proposed site has good connectivity with the rail and road. Barapada Road is the connecting road and is abutting Project site. NH-16 is at 5.7 km in ESE direction from the project site, NH-55 is at 10.1 km in SW direction from the project site and SH-9A is at a distance of 11 km in South direction from project site. The nearest railway station is Kapilas Road Junction at 5.5 km in SE direction. The nearest airport is Biju Patnaik International Airport which is approximately 40.9 km in SSW from the project site. Nearest water bodies include Mendakhal Nadi 7 km towards ESE, Birupa River- 8.8 km towards ESE, Mahanadi River- 12.8 km towards SSW direction , Gabapala Irrigation Lake 9 Km towards North direction. Nimajhara Dam is 10.9 Km towards North direction while High Level Canal Range 1- 4.2 Km towards SE direction.
10. **Topography:** The topography of Project site is generally characterized by an almost flat plain. Banara is a Village in Cuttack District of Odisha State, India. It is located approx.15 km towards East from District headquarters Cuttack. The ground elevation in the study area varies from approximately 1.56-8.17m bgl. Change in topography is envisaged due to construction of buildings, making raw material, and finished good yards.
11. Size or magnitude of operation:

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Plant Configurations

S. No.	Units	Proposed Capacity
i)	Installed Capacity	30 KLPD Grain ENA Distillery and Malt Spirit Plant
ii)	Major Raw Material	Grain (Broken rice, Maize, Bajra)
iii)	Final Product & By-Product	ENA - 30 KLD DDGS- 22 TPD CO ₂ - 15 TPD
iv)	Co-Generation Power Plant (1 x 12 TPH-AFBC)	1.5 MW
v)	IMFL	186025 cases per month

12. Major Raw Material - Grain (Broken rice, Bajra, Maize,) and Malt

13. Final Product & By- Product - ENA -30 KLPD, DDGS- 22 TPD, CO₂- 15 TPD, IMFL – 1,86,025 cases per month.

14. **Land use details:** Total land is 2.83 Ha. This land is sufficient for the setup of the Grain ENA Distillery and Malt Spirit Plant 33.00% land has been earmarked for plantation and greenbelt as per standard norms. Table below gives the % area used in the plant. The tentative land area statement of proposed project is given as below: -

Table: Land Break-up

Land use	Area (Ha)	Percentage (%)
Parking	0.42	15.0
Green belt	0.93	33.0
Road & Paved area	0.36	12
Plant and machinery	1.12	40.0
Total land area	2.83	100.0

15. **Baseline details:** The baseline environment quality was carried out within 10 km of project site during Post Monsoon i.e. October, 2022 to December, 2022.

a) **Ambient air quality:** The minimum and maximum level of PM_{2.5} recorded within the study area was in the range of 31.2 µg/m³ to 44.7 µg/m³ with the 98th percentile ranging between 40.6 µg/m³ to 44.7 µg/m³. The 24 hourly average values of PM_{2.5} were compared with the National Ambient Air Quality Standards (NAAQS) and found that all sampling stations recorded in the study area are within the applicable limits i.e., 60 µg/m³ for PM_{2.5} in rural areas. The minimum and maximum level of PM₁₀ recorded within the study area was in the range of 53.7 µg/m³ to 80.8 µg/m³ with the 98th percentile ranging between 73.3 µg/m³ to 79.7 µg/m³. The minimum and maximum level of SO₂ recorded within the study area was in the range of 5.8 µg/m³ to 10 µg/m³ with the 98th percentile ranging between 8.1 µg/m³ to 9.6 µg/m³. The minimum and maximum level of NO_x recorded within the study area was in the range of 11.4 µg/m³ to 16.4 µg/m³ with the 98th percentile ranging between 14.5 µg/m³ to 16.2 µg/m³. The minimum and maximum level of CO recorded within the study area was in the range of 270 µg/m³ to 450 µg/m³ with the 98th percentile ranging between 355.5 µg/m³ to 450 µg/m³.

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- b) **Noise levels:** Assessment of hourly night time Leq (Ln) varies from 46.8 dB (A) to 63.8 dB (A) and the hourly day time Leq (Ld) varies from 38.8 dB (A) to 53.6 dB (A) within the study area.
- c) **Ground water:** During the study period, the pH was varying for ground waters from 7.41 to 7.54 and the surface water varying between 7.36 to 8.01. The chloride level in the Ground water samples collected in the study area were ranging from 189 mg/l to a maximum of 218 mg/l. The TDS of the samples were above the desirable limit but within the permissible limit of 2000 mg/l. In the ground water samples collected from the study area, the hardness is varying from 189 mg/l to 218 mg/l. In the ground water samples of study area the fluoride value were in the range of 0.3 mg/l to 0.5mg/l. In surface water 0.6 mg/l is the maximum value.
- d) **Soil analysis:** In the study area, variations in the pH of the soil were found to be neutral (7.58 to 7.86). Electrical conductivity (EC) is a measure of the soluble salts and ionic activity in the soil. In the collected soil samples, the conductivity ranged from 246 – 285 µmhos/cm.
16. Permission to extract ground water has been obtained by previous owner. CGWA has sanctioned for 442 KLD extraction from ground water. Extraction should not exceed 132865 m³ in a year.
17. **Water requirement and waste water management:** 263 KLD of fresh water is required as against sanctioned 442 KLPD. Total water requirement for the project will be 1784 KLD which will be further reduced through recycling & reuse of 1485 KLD. Total freshwater demand for distillery operation is 169 KLD @5.6 KL of water/KL of ENA. Soft water required for preparing IMFL = 35 KLD to manufacture 186025 cases per month.

Water use	Fresh water	Recycle 1	Recycle 2	Effluent	Total
Process					
Fermentation	109	26	77	0	212
Distillation	60	0	0	0	60
Total	169	26	77	0	272
	-	-	-	-	-
Boiler	36	252	--	14	302
D Mwater	35	-	-	5	35
Cooling tower	0	130	1000	22	1152
Domestic	6	0	0	5	6
Greenbelt	17	0	0	0	17
Total	263	408	1077	46	1784

18. Domestic sewage will be treated in STP and treated water will be used for horticulture and water sprinkling. The distillery will be based on “zero liquid discharge”. Wastewater generated from plant premises will be treated in ETP/CPU.
19. **Rainwater harvesting:** Total Rainwater can be harvested in Monsoon season (120 days) =1612.8+ 297.6+ 403.2 = 2,313.6 m³ say 80% of this rainwater will be used during distillery process (considering 20% evaporation and other losses) is 1,850.88 m³.
20. **Power requirement:** Actual power requirement to run the entire plant with all its utilities and IMFL unit is expected to be 1.3 MW. The industry has an in-house co-generation power plant of 1.5 MW run by using steam generated in 12 TPH rice husk/ coal fired boiler. For emergency situations 1 no DG set of 500 KVA capacity will be installed within the plant area. Solar power panels will be installed within project premises with capacity equal to 10% of required power demand.

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21. **Fuel requirement:** Heat requirement to carry out various operations and generation of electrical power will be done by using steam. To generate steam a multifuel fired boiler is installed which uses biomass/rice husk/coal in the order of priority.
- Boiler steam generation capacity is 12 TPH.
 - Fuel consumption to generate 12 TPH steam will be 80 TPD rice husk/briquettes.
 - If coal is used the requirement shall be about 44 TPD.
 - For power requirement during emergency a 500 MVA DG set has been installed which requires HSD as a fuel which is a low Sulphur fuel. Its fuel consumption will be about 130 litres of HSD if operated for an hour.
22. **Greenbelt:** A greenbelt of 0.93 Ha (33.00%) will be developed in the plant premises. Approx. 10m wide greenbelt will be developed around the plant premises. This will include digging pits with proper spacing, filling pits with prepared soil, plantation of seedlings and watering. The size of the pit will be 1m x 1m x 1 m for trees and 0.5 m x 0.5 m x 0.5 m x 0.5 m for shrubs. Nursery raised saplings of 2–3 feet height of trees and shrubs will be purchased from local nursery and Forest Dept.
23. **Manpower:** The industry will provide indirect employment to about 50 people and the total employment potential of the project will be about 110 persons.
24. **Project cost:** Estimated cost of the proposed project is 63 crore and CER cost is 0.84 crores. The total capital cost of EMP will be Rs. 3.01 Cr and recurring cost will be 0.437 Cr.

S. No.	Environmental Aspect	Capital Expenditure Rs In Crores	Recurring Expenditure Rs in Crores (per annum)
1	Air Pollution Control, OCEMS	0.80	0.06
2	Water & Wastewater management	0.30	0.03
3	Solid Waste	0.27	0.027
4	Green Belt Development	0.25	0.025
5	Monitoring	0.20	0.02
6	Environmental Cell & PR	0.10	0.01
7	Other aspects like Rain Water Harvesting, Safety, Security etc.	0.25	0.025
8.	CER Cost	0.84	0.24
	Total	3.01	0.437

25. **Environment Consultant:** The Environment consultant **M/s Grass Roots Research & Creation India (P) Ltd. Noida** along with the proponent made a presentation on the proposal before the Committee on 10.03.2023. The SEAC decided to take the decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
a)	Certified Compliance Report to previous EC conditions from RO, MoEF &CC, Govt. of India.	Certified Compliance Report from IRO to conditions of previous EC letter no.– J-11011/463/2010-IA II (I), dated: -	Submitted

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		20.04.2012 is enclosed as Annexure-I .	
b)	Certificate from concerned DFO that there is no presence of Schedule-I species in the study area.	Certificate from DFO providing details of Schedule I species in the 10 km study area is enclosed as Annexure II . Conservation Plan has been prepared and submitted to DFO for approval. Acknowledgement copy attached as Annexure – III .	DFO, Cuttack Division has certified List of Schedule I species present in proposed area has been submitted.
c)	A brief write-up about mitigation measures to address any emergency on alcohol storage and effluent pond.	The distillery unit is based on Zero Liquid Discharge (ZLD) system. Effluent pond will be provided for use in emergency situation when ETP fails. Details for Effluent Pond and Risk as well as Mitigation measures for Ethanol Storage are attached as Annexure – IV .	Submitted
d)	Management plans for carbon dioxide emission.	12 TPD CO ₂ Bottling plant is proposed in the project. Collected CO ₂ will be sold to beverage manufacturing industries. Details are enclosed as Annexure - V .	Undertaking for 12 TPD CO ₂ Bottling plant is proposed in the project.
e)	Recommendation documents and approval from Fire department.	Application has been submitted to the Department for Fire recommendation. Statutory fee has also been paid. Acknowledgement of application and fee Challan are enclosed as Annexure - VI .	Application form with challan submitted.
f)	Sustainability report of plant species for plantation from Forest Department	Application has been submitted to Forest dept. for Sustainability report of	Submitted

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		plant species. Copy of acknowledgement is enclosed as Annexure - VII.	

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

- (i) The project proponent shall ensure implementation and adhering of all conditions and guidelines given in the notifications of MOEF&CC, Govt. of India dated 6th July 2018 and any other notifications relevant to the industry, to ensure Zero Liquid Discharge (ZLD) and safe quality monitoring of all products and safety in operation of the plant.
- (ii) The Project Proponent should install additional sump tanks, if required to arrest effluent due to any Force Majour and monitor, treat and record effluent analysis on daily basis.
- (iii) The proponent shall create adequate testing facilities to monitor the process and quality of all products.
- (iv) Quality of all products to be produced in the plant shall be monitored and tested for all batches on routine basis, by following standard procedures and norms before sent out of the plant and records of all analytical data to be maintained.
- (v) The proponent shall get the products tested by outside certified agency for their safe use from time to time and all such records to be maintained.
- (vi) The DDGS intended to be used for animal feed shall be tested for its safety by appropriate authority before use.
- (vii) Since there is presence of Schedule-I species in proposed area, the project proponent shall ensure implementation and strict adherence to Conservation Plan.
- (viii) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.
- (ix) The project has a land footprint of 2.83 hectares (6.99 acres). The site should have proper arrangement of storm water drain for facilitating discharge of excess rainwater.

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ITEM NO. 02

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 m² /2.48 acres located at Village: Pratapnagari, Nuagada, District: Cuttack, Odisha and total built up area – 54,513.32 m². 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 m² (2.48 acres) and estimated built-up area of the project is 54514.323 m². 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
iii)	Total FAR Area (Including Services)	40346.04
iv)	Achieved FAR	4.0

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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)	Total Built-up Area (3+8+9)	54514.323
x)	Green belt Area (sqm) (25% of total plot area) – Revised in ADS	2514.85 Sq.m (25% of Total Plot Area)
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.11.5 KLD 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. Provision of solar power for the project are Solar water heater (167.18kVA – 7.2% of total power consumption) and solar street lights (34.5 kVA – 1.5% of total power consumption).

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	970
ii)	Staff	107 @ 0.25 kg / day	26.75
iii)	Visitor	281 @ 0.15 kg /day	42.6
iv)	Landscape waste	0.8184 @ 0.2 kg/acres	0.16

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Total Solid Waste Generated	1039.35 kg/day
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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 – As per ADS submitted, revised Total Greenbelt Area** = 2014.00 Sq.m (Greenbelt) + 500.85 Sq.m (Avenue Plantation) = 2514.85 Sq.m (25% of Total Plot Area).
14. Total Green area including paved green / open area measures 3312 m² 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.
15. **Parking Details – Revised parking area** is submitted in ADS i.e. 13109sq.mt. and ECS - 396, 2W -156, Bicycle-120. Total Parking Area Provided - 10694.10 Sq. Mt / 334 ECS.
16. **Rain Water harvested** through 10 nos. of Rain Water recharging pits.
17. **Fire fighting Installations:** Fire fighting system will be installed as per recommendations of the Fire fighting Officer, Odisha and as per the provisions given in Part-IV of National Building Code of India -2016 and relevant BIS specifications.
18. The project cost is 75 crores and Environmental Monitoring Programme Cost – 241 lakhs, which is approx. 3 % of total project cost.
19. 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. The SEAC 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 Annexure (a) .
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 Annexure (b) .
iii)	Certificate from Chartered Civil Engineer how much construction has been	Civil Engineer certificate is attached as an

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	made. Construction status with reference to original plan and revised plan.	Annexure C.
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 Annexure (d) .
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 Annexure (e) .
vi)	Detailed calculation of Rain Water Harvesting and Layout showing Rainwater Harvesting pits.	Detailed Rain water harvesting calculations and RWH plan is attached as Annexure (f) .
vii)	Layout map showing the treated water fallout to nearest drain and it's 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 Annexure (g) .
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 Annexure (g) .
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 Annexure (h) .
x)	Reduce discharge of treated water to drain.	Revised water balance diagram is attached as Annexure (i) .
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 Annexure (j) .
xii)	Traffic study be undertaken at	Traffic study duly vetted by School of Civil

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	intersecting points with NH from a reputed Institute or vetted by a reputed Institute be submitted.	Engineering, KIIT Deemed to be University, Bhubaneswar is attached as an Annexure (k) .
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 Annexure (l) . 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 Annexure (m) .
xv)	Quality of underground water	Test report is attached as Annexure (n) .
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. Application of the same is attached as Annexure (o) .
xvii)	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.	Gharbari documents are attached as Annexure (p) .
xviii)	To submit the Fire Safety recommendation of the State Government Fire wing.	Fire recommendation is attached as Annexure (q) .
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 Annexure (r) .
xx)	Provision of solar power for the project.	Solar water heater (167.18kVA – 7.2%) and solar street lights (34.5 kVA – 1.5%) are proposed all over the project. Calculated Quantum of the project is attached as Annexure (s) .

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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.

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

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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 m² 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 m² just to avoid Environmental Clearance when the actual built-up area 20,000 m². 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 Annexure I .	Parking plan along with Parking area calculation is attached as 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 Annexure II .	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	Stack height if DG Set will be 6 m	Complied.

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	height may be furnished.	<p>above the tallest building</p> <p>Total height of the stack = Height of the building up to terrace level of the tallest tower + Height of the stack above roof level.</p> <p>Our tallest building height = 39.9 m (up to terrace level)</p> <p>Hence, Total stack height of DG set = 39.9 m +6 m = 45.9 m</p>	
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 Annexure III.	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 Annexure IV.	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 Annexure V.	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

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

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

25. The SEAC in its meeting held on dated 27-03-2023 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:

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	The green belt is about 15% and including avenue plantation it is 20%, needs revision.	<p>Total Green Area has been revised to 25% of the total plot area including greenbelt and avenue plantation.</p> <ul style="list-style-type: none"> ❖ Total Plot Area is 10067.37 sq.m. (100 %) ❖ Total Green area is 2514.85 Sq.m. (25 %) <p>Revised Landscape Plan is attached as Annexure I.</p> <p><u>BREAKUP: -</u></p>	complied

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>Greenbelt Plantation = 2014.00 Sq.m (20% of Total Plot Area)</p> <p>1 Row Plantation Total Plants: 500 No.</p> <p>2 Row Plantation</p> <p>3 Row Plantation</p> <p>Avenue Plantation Area = 500.85 Sq.m (5% of Total Plot Area)</p> <p>Podium Green Ornamental Plants 20 No.</p> <p>Total Greenbelt Area = 2014.00 Sq.m (Greenbelt) + 500.85 Sq.m (Avenue Plantation) = 2514.85 Sq.m (25% of Total Plot Area)</p>	
2.	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.	<p><u>OWNERSHIP OF LAND</u></p> <ul style="list-style-type: none"> Land space between culvert and gate belongs to Irrigation Department. It is a revenue road having a Khatiyani no 1028, Plot no 2368 falling in village - Pratapnagri, Nuagada, Cuttack, Odisha. (Land title documents is attached as Annexure II). NOC have been obtained for using the approach road along with the culvert for general purpose of public vide letter no. 1748 dated 12.04.2022. NOC letter is attached as Annexure-IIA 	complied
3.	The proposal looks like a violation case as the PP has	<ul style="list-style-type: none"> As per earlier clarification submitted to SEAC, Odisha, humbly we would like to 	-

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	<p>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.</p>	<p>resubmit that - Since, our earlier building plan approval Built-up area was 16,161.56 sq.m which was less than 20,000 sq.m, and EC, and NOC from PCB was also not applicable for the same, therefore, we have not violated any norms pertaining to EIA notification, 2006 and its amendments. Circumstantially, as our project came under preview of EIA notification we applied for the Environment Clearance. Chronological events for the project was submitted with earlier ADS reply dated on 13.03.2023. However, we are herewith attaching all the Annexures once again for your kind perusal (Earlier Reply Enclosed as Appendix X)</p> <ul style="list-style-type: none"> • Also, it is kindly stated that, a partial construction of the structure has been constructed and the structure which has been designed by SEPL conforms the Standards/Codes of Practices of IS-456 (COP of Plain and Reinforced Concrete), IS-875 (COP of Design Loads for Building and Structure), IS-1893 (Criteria for Earthquake Resistant Design) and National Building code. • Further, as per CDA guidelines vetting of structural safety drawings has been done by appropriate authority i.e. (BIT Sindri Dhanbad, Jharkhand). Verification Certificate from BIT Sindri Dhanbad, Jharkhand vide letter no BITS/MAT/229-06-22/TM, dated 29.06.2022 is attached as Annexure-III. • An affidavit has also been submitted with earlier ADS stating the current foundation laid for one of the blocks can bear the load of the current proposed planning. Affidavit is attached as 	

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p style="text-align: center;">Annexure IV.</p> <p>Kindly accept our submission and grant us Environment Clearance at the earliest.</p>	

Considering the information furnished and the presentation made by the consultant, **M/s OCEAO-ENVIRO Management Solutions (India) Pvt. Ltd., Ghaziabad, U.P – 201012** 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 Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.
- ii) 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.
- iii) The proponent shall use solar energy at least to the tune of 5%of total power requirement as proposed.
- iv) The proponent shall obtain permission from concerned Fire Safety Authority.
- v) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- vi) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- vii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
- viii) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.
- ix) The PP need to obtain necessary structural stability compliance/certificate from CDA as the authority has permitted 8 storied building over already constructed building (initially permitted for 4 storied).

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ITEM NO. 03

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR ALLIABAD SAND QUARRY OVER AN AREA OF 12.50 ACRES OR 5.058 HA. BEARING KHATA NO.610, PLOT NO.328/1310 IN VILLAGE ALLIABAD, TAHASIL- GANJAM, DISTRICT GANJAM BY SRI KRUPASINDHU MUDULI- EC

1. This proposal is for environmental clearance for Alliabad sand quarry over an area of 12.50 acres or 5.058 Ha. bearing Khata No.610, Plot No.328/1310 in village Alliabad, Tahasil-Ganjam, District Ganjam of Sri Krupasindhu Muduli.
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 lease granted by Tahasildar, Ganjam, has been auctioned and leased out to the successful bidder Sri. Krupasindhu Muduli, At – Ramakrushna Nagar, 2nd Lane, Brahmapur, Dist – Ganjam. The mining lease will be granted on for long term basis for 5 years and the lease period will start from the date of registration of executed lease deed. The proposed project activity will be carried out in the bed of the river Rushikulya.
4. Mining plan was approved by Joint Director of Geology, South Zone, Berhampur vide letter no 419 dated 05.04.2022.
5. **Public hearing details:** Public hearing was successfully executed on date 18.11.2022 over the Vacant Land in Khata No 593/483, Plot No 304/2292, Mouza Alliabad under Ganjam Tahasil of Ganjam District. Issues raised were plantation, proper maintenance of road, local employment, water sprinkling for dust suppression and speed of transporting vehicles shall be controlled and shall be covered with tarpaulins. Budget for Public Hearing Issues are as follows- Rs 1,01,000 have been allocated for the development of greenbelt which will be done in the second (II) year of mining and Rs. 1,58,000 for proper maintenance of road.
6. **TOR details:** Terms of Reference (ToRs) was issued by SEIAA, Odisha vide reference No: 4563/SEIAA; dated: 19.05.2022.
7. **Location and connectivity:** The mine lease area is located in Village- Alliabad, Tehsil- Ganjam, District- Ganjam, State- Odisha is on Khata No. 610, Plot No. 328/1310 of Rushikulya river covered in the Survey of India Topo Sheet No – 74A/14 & 74E/3 and is bounded between the Latitude - 19° 23' 36.40" N to 19° 23'45.03" N and Longitude – 85° 01' 48.65" E to 85° 01' 56.55" E. Ganjam Railway Station is situated approx 1.67 km towards South direction. Biju Patnaik International Airport is approx. 125.19 km towards NE direction. NH-16 is approx 1.38 km in SE direction. SH-36 is approx. 7.55 km in SW direction. Ranibara Reserve Forest is approx.5.5 Km NE.
8. There are no Biosphere reserves or Wildlife Sanctuaries or National Parks or Important bird areas (IBAs) or other ecologically sensitive areas within 10 Km from the boundary of the project site
9. **Topography and drainage:** Drainage system in the region is dendritic. General flow direction of Rushikulya River is from NW to SE. Work will continue only during summer months when there is no water in the leasehold. The maximum depth of mining will be of 2m or up to water table whichever is less.
10. **Replenishment report:** The estimated average erosion thickness is computed within the entire lease area and common safe workable area respectively. However, the volume of sand available after post monsoon is around 13493.76 m³, which can be treated as safe

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extractable within the framework of the study after arrival of river level as it was in Pre-monsoon. Further volume of sand also computed which can be extracted as on date (during mining plan preparation) is 68440 m³. As it is a new mine no excavation has done in this year. So, total minable reserve available for mining is 81933.76 m³ whereas, approved production capacity for the year is 12,000 m³.

11. **Reserves and production:** Proposed sand quarry is scheduled to produce at 12,000 cum/year (maximum) for the plan period. Geological reserve is 81460 cum/annum and mineable reserve is 68440 cum/annum

Year	Vol. of Sand in (cum)
1st	12,000
2nd	12,000
3rd	12,000
4th	12,000
5th	12,000
Total	60,000

12. **Mining method:** The sand will be excavated by Open Cast Manual Method. Since the depth of mining is 2.0 m, excavator, handpicks, spade, hand shovel will be used by laborers for extracting & loading of sand. Benching parameters is not feasible in case of sand mining. The maximum depth of mining will be 2.0 m. The mine will be developed in North to South direction. At the end of plan period the quarry floor will be 03 m RL.
13. **Water requirement:** The one-time water demand will be around 5.93 KLD, out of which 0.18 KLD is required for domestic purpose and 4.74 KLD for dust suppression. The water demand will be met from nearby village.

Activity	Calculation	Round off Figure in KLD
Drinking	@ 10 lpcd per labor 10*18/1000= 0.18 KLD	0.18
Dust Suppression	Total approach road to be water sprinkled = 790 m 790 m*6m*0.5 *2 times/1000= 4.74 KLD	4.74
Plantation	505 plant (during plan period) @ 2 L/per plant = 505*2lts = 1010/1000 = 1.01 KLD	1.01
Total		5.93

14. **Power requirement:** All the activities will be carried out manually i.e. loading the trucks/trolley/carrying vehicles manually by the working people. There is no power requirement for the project.
15. **Baseline study:** 24 hrs hourly monitoring was carried out for SO₂, NO_x, PM_{2.5} & PM₁₀ twice a week at each station for a study period of 3 months (March to May 2022). Ambient Air Quality Monitoring reveals that the minimum & maximum concentrations of PM₁₀ for all the 7 AQ monitoring stations were found to be 59.37 µg/m³ at AQ2 and 90.09 µg/m³ at AQ1, respectively. The minimum & maximum concentrations of PM_{2.5} were found to be

23.74 $\mu\text{g}/\text{m}^3$ at AQ2 and 49.33 $\mu\text{g}/\text{m}^3$ at AQ1, respectively. As far as the gaseous pollutants SO_2 and NO_x are concerned, the prescribed CPCB limit of $80\mu\text{g}/\text{m}^3$ for residential and rural areas has never surpassed at any station. The minimum & maximum concentrations of SO_2 were found to be $5.52 \mu\text{g}/\text{m}^3$ at AQ4 & $17.8 \mu\text{g}/\text{m}^3$ at AQ7, respectively. The maximum & minimum concentrations of NO_x were found to be $26 \mu\text{g}/\text{m}^3$ at AQ7 & $9.53 \mu\text{g}/\text{m}^3$ at AQ2, respectively. Samples collected from identified locations indicate the soil is sandy type and the pH value ranging from 7.15 to 7.64, which shows that the soil is alkaline in nature. Potassium is found to be from 49.57 mg/kg to 253.56 mg/kg. The water holding capacity is found in between 26.94 % to 32.09%. Noise monitoring reveals that the maximum & minimum noise levels at day time were recorded as 61.75 Leq. dB (A) at NQ1 & 40.75 dB (A) at NQ6, respectively. The maximum & minimum noise levels at night-time were found to be 49.94 dB (A) at NQ1 & 35.74 dB (A) at NQ5.

16. **Greenbelt:** About 505 number of trees will be planted along approach road & in village during the first year and will be maintained remaining years as per the below table. Plantation will be done with suitable local species like Teak, Mango, Neem, Jammun, Jhaun etc after consultation with the local authorities.

Year	No of plants along both side of approach road	No. of plants At other place like school premises, Aangawadi, Panchayat Bhavan	Total Plantation
1 st	250	255	505
2 nd	Maintenance	Maintenance	Maintenance
3 rd			
4 th			
5 th			
Total	250	255	505

17. **Manpower requirement:** A total of 18 nos. of manpower are to be employed in the lease area for mining 12,000 cum/year of sand. Indirect employment through creation of shops/stalls, hired vehicles, etc. also can be generated to full fill the day-to-day requirements of the mining personnel.
18. **Project cost:** Estimated cost of the project is 50 Lakhs. Capital cost of EMP is Rs. 4.59 Lakhs and recurring cost is Rs. 2.83 Lakhs. Budget allocated for Corporate Environmental Responsibility (CER) is 1 lakh.

Sl. No.	Measures	Capital Cost (In Rs.)	Recurring Cost (In Rs.)
1.	Pollution Control Dust Suppression /Water Sprinkling	2,00,000	50,000

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2.	Pollution Monitoring i) Air pollution ii) Water pollution iii) Soil Pollution iv) Noise Pollution	--	50,000 40,000 20,000 10,000
3.	Green belt development	1,01,000	50,000
4.	Maintenance of haul road	1,58,000	63,000
Total		4,59,000	2,83,000

19. **Environment Consultant:** The Environment consultant **M/s. P and M Solution, Noida** along with the proponent made a presentation on the proposal before the Committee.
20. The SEAC in its meeting held on dated **03-03-2023** recommended the followings:
- A) The proponent may be asked to submit the followings for further processing of EC application;**
- The span and length of the nearest railway bridge and road bridge and exact distance from Rushikulya bridge.
 - Certificate from concerned DFO that proposed sand mining activity will not affect the turtle nesting grounds.
- B) The proposed site shall be visited by Sub-Committee of SEAC to verify the followings;**
- Distance of the turtle nesting ground.
 - Environmental settings of the lease area.
 - Mining activity, if any carried out in the lease area.
 - Road connectivity to the lease area.
 - Distance of the road and railway bridge from the boundary of the lease area.
 - Cluster approach if any.
 - Distance of embankment from sand deposit.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
a)	The span and length of the nearest railway bridge and road bridge and exact distance from Rushikulya bridge.	I. Letter from Assistant Divisional East Coast Railway, Brahmapur Division about the span and length of Railway Bridge has attached as Annexure-1 . II. Letter from Project Director NHAI, Brahmapur Division about the span and length of Road Bridge and distance of the Rushikulya Bridge from project has attached as Annexure-2 .	Distance of Railway Bridge is 1km and length of bridge is 457mtr and span is 10x45.7M Girder. Distance of Road Bridge is 1.3km and length of bridge is 530mtr and span is 48.33mtr.
b)	Certificate from concerned DFO that proposed sand mining activity will not affect the turtle nesting grounds.	Certificate from DFO, Brahmapur has attached as Annexure-3 .	The proposed lease doesn't come under turtle nesting activity zone.

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After detailed discussion, the SEAC decided to take decision on the proposal after a site visit of the Sub-Committee of SEAC.

ITEM NO. 4

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.

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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 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.

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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.
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^o 52' 15.58"N and Longitude 85^o 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

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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 Mineral Reject (MT)	Total ROM (MT)
2021-22	52 numbers diamond core drilling under exploration programme			
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 m³ 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 PM₁₀ in the project site varies from 46 to 57µg/m³ and from 46.4(Ramka Village) to 85.5(Koida) µg/m³ in the nearby villages. The average value of PM_{2.5} in the project site is 23 to 25µg/m³ and the average of PM_{2.5} varies from 23.3 (Podadihi) to 44.5(Koida) µg/m³ in the surrounding villages. Other parameters like, SO₂, NO_x, 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,

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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 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 Annexure 1 .
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 Annexure 2 .
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 Annexure 3 .
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 Annexure 2 .
vi)	Conversion of agricultural lands	The land has been allocated for mining

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	to mining use with help of concerned Authority Revenue Department.	operation.
vii)	Specific measures taken Manganese poisoning in that area.	Details of measures taken to mitigate manganese poisoning due to mining activity is given as Annexure 4
viii)	Reclamation Plan for Dump after conceptual plan.	Dump reclamation plan has been elaborated in Annexure 2 .
ix)	Budget details of EMP.	Detail EMP budget is attached as Annexure 5 .
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 Annexure 6 .
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 Annexure 7 .
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 during the meeting held on 05.11.2022:

- 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 14th March, 2017. The SEAC, after deliberations on the proposal in terms of the provisions of the Notification dated 14th 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.

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- (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, 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 14th 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.

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- (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).
- (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 103rd 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.

43. The SEAC in its meeting held on dated **27-03-2023** 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.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	The SEAC decided to take decision on the issues as requested by the SEIAA, Odisha after receipt of clarification from the	Amount of penalty estimated in respect of the Patamunda Manganese Mines following Standard Operating procedure of MoEF &CC,	a) Cost proposed for Remediation Plan, Natural Resource Augmentation Plan & Community Augmentation Plan for Damage Assessment Rs.

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	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.	Govt of India; has been detailed in the final EIA/EMP Report. The excerpts of which has been attached herewith as Annexure -1 .	22,38,000.00. b) The certificate of turnover obtained from certified Chartered Accountant (CA) for the period of 1996 to 2011: Rs.2,93,91,218.00. Cost of project – 295lakhs. So, total penalty due to violation is Rs. 3,68,478.00. Since, the project proponent has Suo - moto reported the violation, so as per the OM the penalty is halved which comes out to be Rs. 1,84,239.00 to be paid for the violation.

44. The Committee observed the followings;

- a) Cost proposed for Remediation Plan, Natural Resource Augmentation Plan & Community Augmentation Plan for Damage Assessment is Rs. 22,38,000/- (Rupees twenty-two lakhs thirty-eight thousand only).
- b) Cost of assessment of Environmental / Ecological damage due to violation is Rs. 43,00,000/- (Rupees forty-three lakhs only).
- c) Total cost towards Remediation Plan, Natural Resource Augmentation Plan & Community Augmentation Plan for Damage Assessment & assessment of Environmental / Ecological damage is Rs. 65,38,000/- (Rs. 22,38,000 + Rs. 43,00,000/-) for which the proponent has to submit Bank guarantee with the State Pollution Control Board, Odisha prior to the grant of Environmental Clearance.
- d) Total cost of the project is Rs. 295 lakhs and 1% of the project cost is Rs. 2,95,000/-
- e) The certificate of turnover obtained from certified Chartered Accountant (CA) for the period of 1996 to 2011 is Rs.2,93,91,218/- and 0.25% of the turnover is Rs. 73,478/-
- f) **Total penalty to be paid by the proponent as per SoP of MoEF & CC, Govt. of India dtd. 07.07.2021 for violation is (1% of the project cost + 0.25% of turnover) = Rs. 2,95,000 + Rs. 73,478 = Rs. 3,68,478/- (Rupees three lakhs sixty eight thousand four hundred seventy eight only).**
- g) **The proponent has intimated that they have suo-moto reported the violation and claimed that they may be allowed to pay half of the total penalty calculated as SoP of MoEF& CC, Govt. of India dtd. 07.07.2021 for violation. But, violation was observed by SEAC, while considering the TOR and they have not suo-moto applied for violation. Hence, they have to deposit full penalty amount i.e., Rs. 3,68,478/- (Rupees three lakhs sixty-eight thousand four hundred seventy-eight only).**

Considering the above & after detailed discussion, the SEAC recommended the following;

- a) The project proponent shall be required to submit a Bank Guarantee (BG) of an amount of

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` 65,38,000/- towards Remediation Plan, Natural Resource Augmentation Plan & Community Augmentation Plan for Damage Assessment & assessment of Environmental / Ecological damage with the State Pollution Control Board, Odisha prior to the grant of Environmental Clearance.

- b) The proponent has to deposit separately (other than BG) an amount of Rs.3,68,478/- towards the penalty for violation as per SoP of MoEF & CC, Govt. of India dtd. 07.07.2021.

ITEM NO. 5

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S. DNT INFRASTRUCTURES PRIVATE LIMITED FOR DEVELOP A 2B+G+19 STORIED RESIDENTIAL APARTMENT BUILDING OVER AN BUILT-UP AREA 42367.32 SQM LOCATED AT PLOT NO. 817/ 3417, KHATA NO.-890/99, IN MOUZA - SUNDARPUR, KHORDHA, BHUBANESHWAR OF SRI NIKUNJA KISHORE DAS - EC

1. This proposal is for environmental clearance of M/s. DNT Infrastructures Private Limited to develop a 2B+G+19 Storied Residential Apartment Building over a built-up area of 42367.32 sqm located at plot no. 817/ 3417, Khata no.-890/99, in Mouza - Sundarpur, Khordha, Bhubaneshwar of Sri Nikunja Kishore Das.
2. **Category:** The project requires prior Environmental Clearance under the provisions of EIA Notification, 2006 and subsequent amendment and falls under Category B of activity 8(a)-Building & Construction projects.
3. **Location and connectivity:** Project site is located at Plot no. 817/3417, Khata no.-890/99, in Mouza-Sundarpur, Khordha, Bhubaneshwar, Orissa. The Geographical coordinates of the project site are 20°21'12.7"N and 85°46'17.4"E and fall within Toposheet no. 73H/15. Site is flat land with average elevation of 39.92 m AMSL. Project site is well connected with road and it also connects Khandagiri-Chandaka road at a distance of 0.41 km, towards W. Site connects to NH-16 which is 8.36 km towards South direction. Site connects to SH 60 at 12.88 km in E direction. Bhubaneshwar new junction railway station is 7.34 km away in NE direction. Biju Patnaik International Airport is at 12.19 km in S.
4. **Area Details:** The total plot area of the project site is 6029.76 sqm (0.602 ha./1.49 acres). Project involves development of 152 nos. of residential apartments. Built-up area of project after development will be approx. 42367.32 sqm.

Table: Area Summary

Sl. No.	Description	Total (SQ M)
1.	Plot Area	6029.76
2.	Proposed Ground Coverage (26.99 % of total plot area)	1627.61
3.	FAR area (@5.31)	31935.44
4.	NON FAR area	10431.88
5.	Built-up Area	42367.32
6.	Green Area (33 % of plot area)	1945.64
7.	Open Parking area (@ 4.50 % of plot Area)	271.87
8.	Open/Amenities (52.97 % of the plot area)	3225.82
9.	Height	62.80

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10.	No. of Dwelling Units	152
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5. **Water requirement: Revised Water Balance has been submitted in ADS** - Total water requirement is **84 KLD**, out of which domestic water requirement is **71 KLD (Freshwater requirement - 50 KLD + Recycled Water - 21 KLD)**. Wastewater generation – 61KLD treated in STP of capacity 100 KLD. Treated water from the STP – 55 KLD will be used for flushing (21 KLD), fire fighting (1 KLD), DG cooling (4 KLD) and horticulture purpose (8 KLD) and discharge to drain – 21 KLD (Non monsoon period) and 29 KLD (Monsoon period).
6. **Previous Water Balance submitted in EIA & Presentation** - Total water requirement during operation phase is 103 KLD out of which domestic water requirement is 95 and freshwater requirement is 65 KLD. Source of water during operation phase will be ground water.

Category	Population/Area (sq m)/Capacity	Standard (LPCD)	Water Requirement (KLD)	Fresh Water Requirement (KLD)	Recycled Water requirement(KLD)
Domestic					
Residents	684	135	92	64	28
Staff	34	45	2	0.6	1.4
Visitors	68	15	1	0.7	0.3
Total Domestic Water Demand			95	65	30
Landscape	1945.64 sq.m	3 ltr/sqm	3	-	3
Fire Fighting	-	-	1	-	1
DG cooling	500 KVA (1*500)	0.9 l/kVA/hr	4	-	4
Total		-	103	65	38

7. **Wastewater generation:** Sewage generation from the site is expected to be 89 KLD which will be treated in STP of capacity 100 KLD proposed to be constructed at the site. Treated water from the STP will be used for flushing, fire fighting, DG cooling and horticulture purpose.
8. **Rainwater harvesting:** Storm water drainage system will be provided at the site for channelizing storm water and prevents local flooding. Covered storm water drains will be provided at the site. Run-off from the site will be collected and recharged into ground through 18 nos. of RWH pits for harvesting 112320 liters.
9. **Parking detail:** Total Parking area is 10040.05 sq.m. Adequate parking will be provided to accommodate the expected vehicles during operation phase of the project in line with the requirement of Local Building by Laws.
10. **Power requirement:** Maximum power demand for the project during operation phase is estimated to be 1500 kVA. Source of power will be TPCODL. DG sets of Total 500 KVA will be provided as power back-up during power failure. The height of the DG Stacks will be 6 meter above building height. Provision of Solar power for lighting and water heating is there.
11. **Solid waste generation:** During operation phase, waste comprise of municipal waste. It is estimated that approx. 370 kg per day of waste (0.5 kg per capita per day for the residents, 0.15

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kg per capita per day for the visitor. 0.25 kg per capita per day for the staff members, whereas 0.2 kg/acre/day is considered for landscape waste) to be generated from project site. STP sludge expected to generate is approx. 8 kg/day.

S. No.	Description	Occupancy/Area	kg/capita/day	Total Solid Waste Generation (kg/day)	Recyclable (kg/day)	Non-Recyclable(kg/day)
1.	Residents	684	0.5	342	274	68
2.	Staff	34	0.25	9	7.2	1.8
3.	Visitors	68	0.15	10	8	2
4.	Landscape waste	0.22 acres	0.2 kg/acres	1	1	-
Domestic Municipal waste generated				362	290	72
5.	STP sludge	100 KLD	--	8	6	2
Total Waste Generated				370	296	74

12. Greenbelt: Revised Greenbelt as submitted in ADS - Total Plot Area-6010.52 sq.mt. Provided Greenbelt-1262.20 sq.mt (21% of total plot area).

13. Previous Greenbelt submitted in EIA & Presentation Green area will be provided in total area of 1945.64 sq m (33 % of plot area) which will enhance the beauty of the site and help combat air and noise pollution. The plant species will be selected on the basis of Guidelines for Developing Green Belts, CPCB March 2000. Number of trees required is 1 tree/80 sq.m. of plot area which comes to 75 nos.

14. Project Cost: Total cost of the project is INR 99 Crores. EMP cost includes capital cost of 42 lakhs and recurring cost of 19 lakhs.

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

16. The SEAC in its meeting held on dated 14.02.2023 recommended the followings;

- i) **The proponent may be asked to submit the following for further processing of EC application.**
 - a) Certificate from the concerned DFO regarding distance of proposed project from Chandaka Dampara Wildlife Sanctuary and its Eco Sensitive Zone as well as Nandan Kanan Sanctuary and its' Eco Sensitive Zone.
 - b) Revised surface layout w.r.t location of DG set and Stack including calculations of stack height.
 - c) Detailed drainage plan, internal drainage details, drainage permission with supporting documents and NOC for drainage from concerned authority.
 - d) Revised water balance for both monsoon and non-monsoon season.
 - e) Revised solid waste management plan.

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- f) Traffic study report vetted by reputed institute.
 - g) Increase the peripheral greenbelt with minimum of 20% of total plot area.
 - h) Details of renewable energy (Solar Energy) along with its generation, total power consumption, PV cell capacity.
- ii) **The proposed site shall be visited by Sub-Committee of SEAC to verify the followings;**
- a) Environmental settings of the project site.
 - b) Construction activity, if any started at the site.
 - c) Road connectivity to the project site.
 - d) Drainage network at the site.
 - e) Discharge point for discharge of treated water and distance of the discharge point from the project site.
 - f) Any other local issues.

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

- a) PP was present. No construction initiated at the project and the site is clean.
- b) Road and Drain is available in front of the land at road side.
- c) Permission needs to be obtained from PWD or the appropriate authority to discharge excess treated water. However, PP needs to attempt for ZLD.
- d) No trees planted; thus, green belt development is necessary as per norm.
- e) All documents asked during presentation to be submitted.

18. 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.	Certificate from the concerned DFO regarding distance of proposed project from Chandaka Dampara Wildlife Sanctuary and its Eco Sensitive Zone as well as Nandan Kanan Sanctuary and its' Eco Sensitive Zone.	DFO certificate is attached as Annexure I.	DFO, Chandaka Wildlife Division certified that Mouza Sundarpur is not coming within Eco-sensitive zone of Chandaka Dampara Wildlife Sanctuary. Certificate from the concerned DFO, Nandan Kanan Sanctuary and its' Eco Sensitive Zone has not been submitted.
2.	Revised surface layout w.r.t location of DG set and Stack including calculations of stack height.	Surface layout plan showing the DG set location is attached as Annexure II.	Only surface layout is submitted showing location of DG sets. Stack including Calculations of stack height is not submitted.
3.	Detailed drainage plan, internal drainage details, drainage permission with supporting documents and NOC for drainage from concerned authority.	Drainage plan, Internal drainage plan is attached as Annexure III. Application for NOC is	Drainage map submitted both in layout and Google map. Application for NOC for

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		attached as Annexure IV.	drainage from concerned authority has been submitted by the PP. To be added as specific condition.
4.	Revised water balance for both monsoon and non-monsoon season.	Revised water balance is attached as Annexure V.	submitted
5.	Revised solid waste management plan.	<p>Solid waste management plan.</p> <ol style="list-style-type: none"> 1. The solid waste will be segregated at source & collected. 2. Adequate number of colored bins (green, white & Black) 37 approx. 10no. separate for bio-degradable, non-biodegradable and Hazardous waste are proposed to be provided at the strategic location within site. <p>Type of Waste:</p> <ol style="list-style-type: none"> A. Organic waste/ Bio-degradable: (Waste vegetable, food etc.) – will be composted will be used as Manure. B. Inorganic waste/Non-Biodegradable: Metals, plastics, polythene bags, glass etc. – will be disposed to govt. or SPCB approved third party vendors. C. The Hazardous waste generated will be managed as per the Hazardous and other Wastes (Management and Tran's boundary Movement) Rules, 2016. D. Horticultural Waste is composted and used for gardening purpose. <p>Management plan for Pest Control due to the</p>	-

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>generation of Solid waste:</p> <ol style="list-style-type: none"> 1. Waste disposal units should be covered and sealed. 2. Waste disposal area should be clean and disposal process should be done on the same day to maintain the hygiene and to avoid the collection of pest. 3. Install insect traps if required 4. Use of physical, chemical and biological methods to control pest. 	
6.	Traffic study report vetted by reputed institute.	Traffic study report vetted by reputed institute is attached as Annexure VI.	Traffic study report vetted by KIIT, BBSR concludes after 10 years, the LOS found to be 'B' with or without project.
7.	Increase the peripheral greenbelt with minimum of 20% of total plot area.	Peripheral greenbelt showing 20% green belt area of total plot area is attached as Annexure VII.	Total Plot Area-6010.52 sq.mt Required Peripheral Greenbelt 20% of total plot area Provided Greenbelt-1262.20 sq.mt (21% of total plot area).
8.	Details of renewable energy (Solar Energy) along with its generation, total power consumption, PV cell capacity.	Required solar roof top system = 500 sq.mt Required Solar Water Heating System = 100 LPD/ single flat Total Provided Solar Water Heating System 15200 LPD/152 flat renewable energy (Solar Energy) plan is attached as Annexure VIII.	Detailed Calculation has not been submitted in terms of percentage of renewable energy contributed to total power demand. However, layout submitted.

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

- a) Certificate from the concerned DFO, Nandan Kanan Sanctuary and its' Eco Sensitive Zone has not been submitted.
- b) Calculations of stack height of DG set as asked has not been submitted.
- c) Detailed Calculation has not been submitted in terms of percentage of renewable energy contributed to total power demand.
- d) RL of the bottom of the rainwater discharge pit as well as RL of ground water table during rainy and summer season.

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Environmental Scientist, SEAC

- e) Source of water for use during construction phase.

ITEM NO. 06

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR PRODUCTION OF 90043 TPA IRON ORE IN RESPECT OF NANGALSILA IRON ORE MINES LOCATED IN VILLAGE NANGALSILA AND MURUMDIHI OVER AN AREA 45.333 HA OF NON-FOREST LAND UNDER KUSUMI TAHASIL IN MAYURBHANJ DISTRICT OF SHRI GOURI SHANKAR CHOUBEY – EC UNDER VIOLATION CATEGORY

1. This proposal is for Environmental Clearance for production of 90043 TPA Iron Ore in respect of Nangalsila iron ore mines located in village Nangalsila and murumdihi over an area 45.333 ha of non-forest land under Kusumi Tahasil in Mayurbhanj District of Shri Gouri Shankar Choubey.
2. **Category:** The proposed project falls under Category 'B' [Sl. No 1(a) of Schedule: Mining of Minerals] of the list of project or activities requiring prior Environmental Clearance from MoEF&CC Notification dated 14th September, 2006 in connection with Environment (Protection) Rules 1986.
3. **TOR Details:** Terms of Reference (TOR) was granted by SEIAA, Odisha vide letter no 4200/SEIAA dated: 14.03.2022.
4. **Chronology of events of the project details:**
 - Mining Lease of **Nangalsila Iron Ore Mines** over 45.333 Ha. located in village Nangalsila & Murumdihi under Kusumi Tehsil, District- Mayurbhanj, Odisha for Iron ore was granted in favour of Sri Gouri Shankar Choubey by the Department of Steel & Mines, Government of Odisha vide proceeding No.6876 dated 07.06.1982 in terms of 20 years. The Deed of Mining lease was executed on 19.04.1985 with the State Government represented through the Collector, Mayurbhanj and registered on 18.07.1985 with the Sub-Register, Baripada. Surface right has been granted over 32.780 Ha by the Collector Mayurbhanj, Odisha vide letter dated 17.08.1985.
 - Keeping in view of expiry of the lease period the lessee was applied for 1st Renewal of Mining Lease (RML) over the same lease area of 45.931 Ha which inclusive of 0.174 Ha of village forest land and 0.424 Ha of non-forest revenue as well as private tenanted land under provisions of Rules 24A(1) of Mineral Concession Rules, 1960 for a period of further 20 years on 14.04.2004.
 - Scheme of Mining approved for 45.931 Ha by the Indian Bureau of Mines vide Letter No. BBS/MBJ/Fe/MP-284 dated 25.08.2006 for the period 2005-06 to 2009-10.
 - The lessee/project proponent had continued production with the earlier capacity up to the year 2008-09. under provisions of Rule 24A(6) of Mineral Concession Rules, 1960 i.e. Deemed extension provision. The Mining Officer, Baripada Circle, Baripada vide letter No.4837/Mines dated 19.11.2009 has suspended mining operation/activities until getting all statutory clearances including environmental clearance. No violation was mentioned in the said notice.
 - In compliance to the instruction issued by the Mining Officer, Baripada Circle, the lessee was proposed to surrender the small patch of forest land over 0.174 Ha which was kept

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unused from any mining activity along with few non-working non-forest lands of 0.424 Ha which was not required for future mining work and occupied by the local villagers.

- The lessee was submitted revised RML application vide its letter dated 28.04.2011 to the Steel & Mines Department, Government of Odisha over the reduced area of 45.333 Ha non-forest land only by surrendering 0.598 Ha of non-working forest and non-forest land to keep the project commercially and technically viable.
- The lessee had submitted Final Mine Closure Plan for the part surrender area over 0.598 Ha inclusive of 0.174 Ha of unused village forest land out of the total ML area of 45.931 Ha. Final Mine Closure Plan of the part surrender of 0.598 Ha out of the total area 45.931 Ha duly approved by Indian Bureau of Mines vide letter No. FMCP/MAN/02-ORI/BHU/2011-12 dated 05.09.2011 under Rule 23 (C) of MCDR, 1988.
- Scheme of Mining along with Progressive Mine Closure Plan duly approved by the Indian Bureau of Mines vide letter No.SM/OTFM/27-ORI/BHU/2011-12 dated 28.10.2011 for the period 2010-11 to 2014-15.
- After satisfactorily complied the terms and conditions imposed in the approval letter dated 05.09.2011, officials from Indian Bureau of Mines was inspected the mine and certificate of FMCP for the approved area over 0.598 Ha under Rule 29A of MCR, 1960 has been issued by the Regional Controller, Indian Bureau of Mines, Bhubaneswar vide his Certificate No. T/FMCP/C/I/BHU-2011 dated 08.02.2012.
- During the pendency of the 1st RML application, the Government of India on 12.01.2015 announced promulgation of the ordinance for amendment in the Mines and Minerals (Development and Regulation) (MMDR) Act, 1957 and introduced new MMDR Amendment Act, 2015. As per the new amendment any lease granted before the commencement MMDR Act, 2015, shall be extended: (i) up to March 31, 2030 for minerals used for captive purpose (specific end-use) and up to March 31, 2020 for minerals used for other than captive purpose, or (ii) till the completion of renewal period, or (iii) for a period of 50 years from the date of grant of such lease, whichever is later. Accordingly, the lease of Nangalsila Iron Ore Mines is eligible for extension upto 50 years w.e.f. 19.04.1985 to 18.04.2035 under section 8A(3) of the MMDR Amendment Act, 2015.
- In the meanwhile, the Government of Odisha, through Department of Steel & Mines issued notice vide their order No.57111/S&M/III(A)SM-24/2013 dated 25.06.2015 in favor of the lessee declaring the mining lease of Nangalsila Iron Ore mines as “Lapsed” w.e.f. 18.11.2009 under provisions of Section 4A of the MMDR Act, 1957 read with the Rule 28(1) of MC rules, 1960.
- The said notice was challenged by the lessee before the Hon’ble Revisional Authority, Ministry Mines, New Delhi vide RA No.22/46/2015/RC-I dated 06.08.2015. Hon’ble Revisional Authority, Ministry Mines in their common order dated 11.05.2016 set aside the impugned order of lapsing and remanded back to the State Government for suitable reconsideration in-line with the Hon’ble Apex Court’s direction dated 04.04.2016 passed in W.P.(C) No.114/2014 (Common Cause vrs Union of India) on the provisions of lapsing.

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- Under direction of the Hon'ble Revisional Authority, the Department of Steel & Mines was called lessee to appeared before the Additional Secretary to Government, Department of Steel & Mines for personal hearing vide Notice No.1779/SM, Bhubaneswar dated 17.02.2020.
- After conducted personal hearing and based on representation submitted by the lessee the Steel & Mines Department, Government of Odisha passed an order vide its proceeding order No.8913/SM, Bhubaneswar dated 05.10.2021, wherein the Government after careful consideration have been pleased to consider not to declare the mining lease of Nangalsila Iron Ore Mine of Sri Gouri Shankar Choubey as lapsed under sub-rule 6 of Rule 20 of Rule 20 of MCR, 2016. Further, recommended that resumption of the said mining lease is subject to obtaining statutory clearances and approval of renewal of 1st RML applied by the lessee.
- In the meanwhile, the 1st RML application of Nangalsila Iron Ore Mines was placed in the 19th Meeting of Inter-Departmental Committee of Government of Odisha to consider extension of Mining Lease under section 8(A) of the MMDR Act, 1957 up to 50 years w.e.f. 19.04.1985 to 18.04.2035.

5. Details of violation

- The Lessee has produced in excess of approved limit of production under EC, Mining Plan and CTO. In this regard, the details of action initiated under Environment (Protection) Act, 1986.
 - Further, in pursuant to order/judgement dated 02.08.2017 in W.P.(C). No.114/2014 (Common Cause Vs Union of India & Others), the Mining Officer, Baripada had issued demand notice to the lessee for payment of Rs.3,46,41,047/- towards compensation for the production of iron ore without/in excess of the EC Limit under section 21(5) of MMDR Act, 1957 by 31.12.2017.
 - Subsequently, the Mining Officer, Baripada vide Notice No.3450 dated 20.12.2017 had issued a revised demand notice to the lessee to deposit Rs.2,91,58,813/- on ore before 31.12.2017 pursuance to para 225 of the order of the Supreme Court dated 02.08.2017.
 - Against the such demand, the lessee has paid/deposited entire raised demand towards compensation with applicable interest due to delay in payment totaling to Rs.4,51,50,000/- and complied the order of the Hon'ble Apex Court in the Common Cause matter. In addition to the above, the lessee/project proponent has also made payment towards compensation amounting to Rs.6,51,500/- for which a separate demand notice was issued in violation of MP & CTO. The Director of Mines, Odisha, vide their letter No.5629 dated 23.07.2019 reported that during the period from 03.06.2019 to 02.07.2019, the Noticee/Lessee has deposited the entire demanded amount along with applicable interest.
 - The lessee has submitted an affidavit, in compliance of the MoEF&CC, Government of India, O.M. No. F: 3-50/2017-IA.III (Pt.), dated 30.05.2018 on the judgment of Hon'ble Supreme Court, dated the 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India along with TOR application.
6. As the project is declared as a case of violation, the Project Proponent shall be submitting 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 after recommendation of the SEAC, Odisha and finalized by the regulatory authority i.e. SEIAA,

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Odisha. Total budgetary provision were made towards the implementation of natural community augmentation plan and shall be utilized within a period of three years (2023 to 2026) as given below:

SL.NO.	PROJECT HEAD	AMOUNT IN RS.
i)	Estimated cost on remediation plan based on the damage assessment due to violation	17,07,500.00
ii)	Cost estimate for natural resources augmentation plan and Community resources augmentation plan	2,55,000.00
iii)	Penalty due to violation	1,08,425.00
TOTAL		20,70,925.00

7. Consent to establish (CTE) has been granted to the project by State Pollution Control Board, Odisha vide Letter No.2752/IND-II-CTE-6806 dated 23.02.2023 for production of 90,043 TPA (ROM) through opencast semi mechanized method of mining along with installation of (1x60 TPH) crusher and 1x400 TPH Mobile Screening Plant inside the ML area over 45.333 Ha.
8. In compliance to the condition imposed in the deed of lease, the PP has obtained permission for surface operation from the Collector & District Magistrate, Mayurbhanj in 1985 over 32.870 Ha. The PP is paying surface rent on regular basis to the State Government through Mining Department. An amounting to Rs. 21,40,126/- paid towards SR & DR by the PP up to 1st HYE 2022.
9. **Location and Connectivity:** Nangalsila Iron Ore Mine features in Survey of India Topo-sheet No.73-J/4 and extends over an area of 45.333 hectares non-forest land is located in Villages Nangalsila and Murumdihi at P.S/ Tehsil- kusumi under Bamanghaty Sub-division of Mayurbhanj District. Bounded by Latitude: 22°09'23.58"N – 22°09'21.09"N and Longitude: 86°12'53.79" E – 86°12'57.21"E .The project site is well connected with various places of Odisha, Jharkhand and West Bengal through by Road and Rail network. Kuldhia- Nearest Railway siding and Railway Station-8Km Bisoi-Rairangpur State Highway-11km. NH-220- Rairangpur Dhenkikot-14 km, Bhubaneswar- Airport and Capital of Odisha-300km. Badampaharh R.F. 0.40 km SE, Karan Jharan Dhasra R.F. 0.80 km SE. Nearest major water bodies are Kadkai River 0.54 km NE direction from the lease area, Bankbal Reservoir 7.96 km ENE direction from the lease area, Bankbal Nadi 7.39 km NE direction from the lease area and One seasonal nala/stream starts from 307mRL in southern sector and flows down to through 303mRL in the northern sector.
10. The project site is located well beyond 10KM from Simlipal Biosphere Reserve and Eco-Sensitive zone. The same is authenticated by the Divisional Forest Officer, Rairangpur vide letter No777/3F dated 10.02.2023. Further, No Schedule-I & II flora and Fauna exist within the 10KM of the lease area as per letter No. 1715/3F dated 04.04.2023 of DFO, Rairangpur division.
11. **Land Use:** The percent of total area under different land use/land cover category are presented below.

Land Use Pattern of the Study Area			
Sr. No.	Classes	Area in ha	Area in %
i)	Agriculture Area	25035.90	72.10

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ii)	Settlements	2374.70	6.84
iii)	Grazing/ Community Land	1300.00	3.74
iv)	Surface Water Bodies	1111.70	3.20
v)	Forest	3601.00	10.37
vi)	Other	1300.00	3.74
Total		34723.30	100.00

12. **Size & Magnitude:** The project Nangalsila Iron Ore Mines has been projected to produce 90,043 TPA or 0.09 MTPA iron ore involving lease area 45.333 Ha. The method of mining will be opencast and by other than fully mechanized method. The operation will be done as per the proposal approved in the Review of Mining Plan duly approved by the Indian Bureau of Mines for the period 2020-21 to 2024-25.

13. **Topography and drainage:** The mining lease area of Nangalsila Iron Ores Mines displays a flat topography. Highest and lowest altitudes are noted at 300.5 m and 291.5 m above mean sea level. The maximum altitude difference is (300.5 – 291.5= 9m). M.L area consists of mainly waste land as well as agricultural field and bisected by nalla. Drainage system is dendritic type. The drainage system of the area is mostly influenced by nalla which passes through the lease area in SE to NW direction and controls the drainage system in the region.

14. **Reserve & Resource:** As per the approved mining plan, proved minable reserve is about 95,868 MT and remaining resource is about 1.2 million tons as per earlier mining plan. Considering the proved reserved category, it is proposed to produce 90,043 TPA during the proposal year. The operation of the mine has been suspended by MO, Baripada vide letter dated 11.08.2009 due to want of certain statutory clearances. In the meanwhile, PP has requested the department of steel & mines vide letter dated 04.05.2022 and department of steel and mines rejected the request of PP stating that the exploration can be done only after execution of supplementary lease deed by obtaining all statutory clearances vide letter dated 22.06.2022. Therefore, it is proposed to explore the entire lease area up to G1 level exploration after opening of the mine and fresh reserve estimation will be done accordingly. Therefore, life of the mine will be positively increased upto 12 years.

15. **Method of Mining:** Opencast Other than fully mechanized (OFTM) method of mining will be adopted on 8 hourly shift basis. Excavator of 0.9m³ capacity will be utilized for excavation & loading and 10 tones capacity tippers will be utilized for transportation of ore to the ore sorting & sizing yard and waste to the dumping site. Hard iron ore will be crushed using a 60 TPH crusher and entire iron ore produced will be screened in a 400tph screening plant. Saleable ore will be dispatched through trucks / train depending upon the location of consuming industries and logistic support. The mine will be operated as Category-A (OTFM) Mine as per MCDR, 2017.

16. **Waste and Over Burden:** During the plan period about 8,343m³ of Top soil and 70,980m³ of over burden and side burden (OB+SB) will be generated during the proposed plan period. An area measuring 0.278 Ha and 1.182 Ha has been earmarked for storage of top soil and over burden dump respectively. Overburden will be dumped at Dump No.3 with individual terrace height of 7.5 meters. Slope of the dump will be maintained at 37degree 30Minute. Retaining wall will be constructed around IB/Waste dump to retain the wash-off materials. Boulder and waste materials will be utilized for construction of retaining wall.

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17. **Water requirement:** The water required is mainly for dust suppression, green belt development, drinking and other domestic purpose during mining operations. Water requirement for Domestic purpose, drinking purposes, dust suppression and water sprinkling purpose at the mine site shall be drawn from nearby bore wells & hired tanker for sprinklings. The total water requirement will be approx. **9.8 KLD** will be sourced from borewell and water harvesting pond. NOC granted by the Central Ground Water Board, Authority for withdrawing 9.8 KLD water per day for mining & allied activity vide letter No. 21-4/3507/OR/MIN/2022 dated 29.03.2022.
18. **Power requirement:** The estimated power demand is ~10 KW for illumination, operation of weighbridge, surveillance system & water pumps. The power shall be drawn from the grid.
19. **Fuel requirement:** The mining activities will be carried out by opencast mechanized method, using diesel operated machinery. The mining operation will be done in single shift during day time only. The fuel (HSD) consumption in the mine operating at full capacity shall be 2.4 kl.
20. **Green Belt:** About 22,425 saplings has been proposed to be planted within a period of 3 years after commencement of mining operation. Out of which, about 7875 numbers of saplings will be planted in 3150m²/3.15 hectares of area along the Safety zone and other vacate site of ML area. Saplings will be planted at 2m spacing. Watering and manuring will be done periodically. Post plantation care such as soil working, pruning etc. will be conducted. Insecticides will be spread for pest control. Proper watch and ward will be there to save the trees from fire & grazing. Monitoring & Maintenance of the plantation site will be undertaken in such way that there will be at least 80% survival rate through casualty replacement. Species like Sisoo, Sisham, Neem, Pipal, Bargad, Khamer, Chirol, Seetaphal, Karanj, Babool, Kadamb, Amaltas, Ashoka, Aam, Gulmohar and available native fruit bearing species has been proposed to plant. The proposed planted scheduled is tabulated as follows:

SL.NO.	YEAR	NUMBER OF PLANT
i)	1 st Year (2023-24)	7,475
ii)	2 nd Year (2024-25)	7,475
iii)	3 rd Year (2025-26)	7,475
Total		22,425

21. **Public Hearing Details** - Public hearing has been conducted on 19.08.2022 by the SPCB, Odisha as per provisions of EIA Notification 2006 and proceeding issued vide letter dated 19.09.2022 . Issues raised by the participants are Development of Environment Protection, Employment to the local youth, Development of Education system, Development of Health system, Peripheral Development work to be undertaken nearby villages. Budget allocated amounting to Rs.5,50,000/- earmarked under different category towards implementation of the issued raised by the participants and commitment made by the Project Proponent. Peripheral development work will also be done as per the guidelines notified by the Government.

SL.No.	PH based CER Activities	Amount in Rs.
i)	Economic contribution for cultural activities, sports, education, health care etc.	3,00,000.00

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ii)	Construction of Boundary wall & White wash of primary school village Suleipat & Suleipat New Government High School, Provision for one computer with printer in primary school village Suleipat	2,50,000.00
iii)	Peripheral development (Rs. 4,00,000.00)	Already covered in EMP
TOTAL		5,50,000.00

22. **Baseline Study** - The baseline environmental study has been performed for the period of 1st December, 2021 to 28th February, 2022.

- a) Results of Soil Samples: The analysis results show that soil is basic in nature as pH value ranges from 5.15 to 6.55 with the concentration of Sodium(12.0mg/kg to 33.5 mg/kg and Potassium (107.5 kg/ha to 174.7 kg/ha.) has been found to be in good amount in the soil samples.
- b) Analysis results of Ground Water reveal the following: pH varies from to 6.50 to 6.70.Total Hardness varies from 60to 192mg/L.Total Dissolved Solids varies from 80 to 410 mg/L.
- c) Analysis results of surface water reveal the following: pH varies from to 7.6 to 7.7.Total Hardness varies from 42 to 56 mg/L.Total Dissolved Solids varies from 44 to 72 mg/L.BOD varies from <2.0 to 2.5.COD varies from 5 to 10.
- d) Analysis of Air Quality reveals that: - PM₁₀ varies from 40.6 µg/m³ to 67.9 µg/m³. All the observed values are well below 100 µg/m³.PM_{2.5} varies from 21.8 µg/m³ to 37.3 µg/m³. All the observed values are well below 60 µg/m³.Sulphur dioxide (SO₂) varies from 4.3 µg/m³ to 10 µg/m³. All the observed values are well below 80 µg/m³.Nitrogen (NO₂) varies from 10.9 µg/m³ to 18.4 µg/m³. All the observed values are well below 80 µg/m³. Carbon Monoxide (CO) varies from 0.33 mg/m³ to 0.36 mg/m³. All the observed values are well below 2 mg/m³.
- e) Analysis of Noise levels reveals that: The day time Leq ranges from 38.5 dB (Min.) to 46.8 dB (Max). The night time Leq varies between 31.4 dB (Min.) to 36.7 dB (Max).

23. **Traffic Study Report** - Traffic study measurements were performed at NH 220 and SH-50. The traffic to and from the proposed site will be through this point. Traffic data collected continuously for 24 hours by visual observation and counting of vehicles under three categories, viz., heavy motor vehicles, light motor vehicles and two/three wheelers. Cumulative traffic Scenario and LOS of existing road as given below:

- Traffic load on SH-50 Road - Existing scenario
- Volume in PCU/day – 1136, Capacity in PCU/day – 2000
- Existing V/C Ratio – 0.56, LOS – C, Performance – Good

24. Proposed production capacity of Nangalsila Iron Ore Mine is 90,043 TPA. Average daily production is 246 MT. Despatch of the Iron ore will be done by rail through Kuldhia Railway siding located about 5 KM from the lease area.

25. **Manpower requirement:** The total manpower required for this proposed project is 111 in numbers.

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26. **Project cost:** The proposed project cost is estimated to be approximately Rs 1.65 Crore. The fund estimated towards EMP is Rs. 31,48,500.00 as Capital Cost and Rs. 17,33,350.00 as Recurring Cost. Budget for CER Activities is Rs. 5,50,000.00.
27. The Environment consultant **M/s Aseries Envirotek India Pvt. Ltd, Lucknow (UP)-226008** along with the proponent made a presentation on the proposal before the Committee on dtd. 24.04.2023.
28. The SEAC in its meeting held on dated 24-04-2023 decided to take the decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Project proponent shall submit the real time video of the mining lease and the transportation route as per ToRs conditions.	Real time video (soft copy) showing mining lease and the transportation route is attached.	Real time video submitted.
2.	Copy of approval of DMG as per ToRs conditions.	Copy of DMG approval as per ToR condition is enclosed herewith and marked as Annexure-1 and Annexure-2 for your kind reference.	DGPS survey geo referenced retained map area and certified production chart from the 1993-94 to 2008-09 from DDM, Baripada circle submitted.
3.	Exact distance of the lease boundary from boundary of the Similipal Sanctuary and its Eco-Sensitive Zone duly certified by the concerned Tahasildar.	The lease area of Nangalsila Iron Ore Mines is located well beyond 10Km from the boundary of the Similipal Sanctuary and its Eco-Sensitive Zone. Exact distance of the lease boundary of Nangalsila Iron Ore Mine from the boundary of the Similipal Sanctuary and its Eco-Sensitive Zone duly certified by the Tahasildar Kusumi is enclosed herewith and marked as Annexure-3 for your kind reference.	Tahasildar Kusumi, Badampahar certified exact distance of the lease boundary from boundary of the Similipal Sanctuary and its Eco-Sensitive Zone is 11.270km.
4.	Kisam of land and supporting documents for conversion of Kissam of Land to Industrial Use.	As per the schedule of the land provided by the Revenue Department over 45.333 Ha. an area measuring 1.99 Ha. is recorded as Gochar land. The surface right permission has been granted by the Mining Department after recommendation of the Collector-cum-District Magistrate, Mayurbhanj over 32.780 Ha. excluding the Gochar land. Mining operation will be confined to Govt. waste land recorded as Abad Jogya Anabadi, Patharbani and	Conversion of Kisam of Land to Industrial Use should be done before starting of Mining activity shall be remain as specific condition.

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>Abad Ajogya Anabadi etc. and private tenanted land which are barren lands and not suitable for cultivation because of its low fertile and have difficult terrains such as hilly area. As per approved mining plan after exhausted of ore the waste land will be reclaimed by way of back filling and plantation. The private land will be restored by way of back filling and levelling and handed over to the land owner for agriculture/cultivation purpose. The land will be used only for excavation of Iron ore, no permanent Industry or infrastructure will be installed/set up in the lease hold area. Therefore, conversion of Kism of land to Industrial use will not be required for present mining operation. In future, if required will follow the due procedure before use of the Gochar land.</p>	
5.	Copy of surface right issued by the Collector-cum-District Magistrate.	Copy of the surface right permission granted over 32.780 hectares in respect of Nangalsila Iron Ore Mines vide letter dated 17.08.1985 is enclosed herewith and marked as Annexure-4 for your kind reference. We are paying surface rent on regular basis to the Mining Officer, Baripada Circle over 32.780 Ha. We have deposited amounting to Rs.7,46,134.00 towards surface rent in compliance to the demand notice No.599 dated 04.03.2022 issued by the Mining Officer, Baripada Circle.	Complied
6.	A report for quantity of silt generation and silt management along with the layout map.	The mine will be operated by adopting opencast semi-mechanized method as per the Review of Mining Plan duly approved by the Indian Bureau of Mines. Production capacity of the mine is 90,043 TPA only. Very negligible quantity of silt will be generated from the operation of this mine. Report for quality of silt generation and silt management	Complied

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		along with the layout map is enclosed herewith and marked as Annexure-5 for your kind reference.	
7.	There is a natural nallah within the lease area. Detailed mitigation measures to be undertaken for protection of Natural Nallah. An undertaking shall be given that they shall not divert the natural nallah for mining purpose without permission from competent authority.	<p>There is one seasonal nallah is passing through the lease area. The said nallah should not be disturbed due to mining operation. The mitigation measures proposed to undertaken for protection of the natural nallah is as follows:</p> <ol style="list-style-type: none"> 1. Stone wall will be constructed along the both side of the nallah as and when required. 2. Plantation as safety zone will be done at 7.5 meters width along the both side of the nallah to protect soil erosion. 3. Run-off from the operational pits or over burden dump should prevented to avoid being discharged to the nallah. 4. Runoff from the mine and waste dumps should be regulated by constructing check dams and garland drains. 5. Mine drainage should be suitably treated to meet the prescribed standard and discharged in to water bodies and land. <p>An undertaking to this effect not to divert the natural nallah for mining purpose without permission from the competent authority is enclosed herewith and marked as Annexure-6 for your kind reference. In case of diversion; alignments with natural drainage should be made by constructing artificial drains.</p>	complied
8.	Details of Surface Runoff Management and Treatment System.	Surface runoff management is one of the major and important parts of mine water management for water conservation purpose and to maintain desired effluents standards from mining activities. Problems caused by runoff and erosion include acid mine	complied

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>drainage, metal contamination, and increased sediment levels in streams.</p> <p>There is no perennial river or major surface water body exists in the mining lease area. Drainage in the core zone shall be regulated in a manner so that the pre-mining drainage pattern of the area can be maintained. The storm water drainage system follows the natural contours facilitated by the fact that the mine will have no significant impact on the topography.</p> <p>Surface Runoff Management (including storm water discharge) will be carried out through a network of garland drains and catch pits. The salient features of the drainage management scheme are as follows:</p> <ul style="list-style-type: none"> ❖ The overall drainage planning will be done in a manner such which follows the existing pre mining drainage routing to the extent possible, maintaining the overall slope in the direction of pre mining flow direction so that run off distribution will be not affected. ❖ Garland drains will be provided on sides of quarries, storage areas and external dumps (depending on contours). The garland drains shall be routed through catch pits and settling tanks to settle out suspended solids in the storm water. The clarified water will be discharged to natural water courses. ❖ The mine will develop one rain water harvesting pits and a pond in the mine lease area to accumulate the rainwater. The surface runoff during rainy day has tendency to discharge into the natural drainage system 	

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>of the area. There will be no discharge from the mine. It is required to ensure runoff water quality during rainy season before it joins the seasonal nalla in the core zone.</p> <ul style="list-style-type: none"> ❖ Garland drains shall be constructed to arrest silt and sediments flows from soil and mineral dumps. Hence, garland drains will be constructed around quarry and OB dumps to collect runoff. The water collected can be utilized for watering the mine area, roads, greenbelt development etc. Deep garland drains will be constructed at the toe of sub-grade and OB dumps to arrest silt and sediments flows from soil, and mineral dumps before monsoon. These drains will be desilted regularly and maintained properly. Garland drains (size, gradient and length) and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sedimentation pits will be constructed at the corners of the garland drains with adequate retention period and shall be desilted at regular intervals particularly before and after the monsoon season. ❖ Suitable storm water drainage system along the roads will be provided to dispose storm water effectively. The surface runoff collected in the storm water drains will be channelized through a series of settling cum percolation ponds before discharged. 	

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>❖ The cross-sectional shape of garland drains can be trapezoidal i.e., with different bottom and top-width as well as it can be rectangular. The two major components of garland drains are retaining wall or toe wall and secondly, the garland drain channel. The retaining walls will be constructed on the side where OB will be dumped or stocks are planned to be piled, to stop the direct flow of silt material into the drains during heavy rainfall. Small holes will be poked into the retaining wall to drain the water and silt which should eventually come to garland drain at a slower speed. The bottom slope of the garland drains will be designed for precipitation of silts due to longer retention. Based on various reports, the standard depth and width of a garland drains is found to be 1.5 m x1.5 m with 2 m high toe wall.</p>	

45. The SEAC observed the following;

- a) The proposal was considered by the State Level Expert Appraisal Committee (SEAC), Odisha in its meeting held on 19.02.2022 for appraisal of the proposal for ToR in pursuance of the MoEF&CC, Govt. of India Notification dated 14th March, 2017. The SEAC, after deliberations on the proposal in terms of the provisions of the Notification dated 14th March, 2017 and 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, 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.

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iii). Public hearing has to be conducted as per provisions of EIA Notification 2006 and amendment thereafter and copy of final EIA/EMP report incorporating the public hearing proceeding shall be submitted for final appraisal.

- b) EIA/EMP study report has been prepared by a NABET Accredited / NABL Accredited Consultant namely **M/s Aseries Envirotek India Pvt. Ltd, Lucknow (UP)-226008**.
- 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 ` 19,62,500/- (Rupees Nineteen lakh sixty-two thousand five hundred 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) Total cost of the project is Rs. 165 lakhs and 1% of the project cost is Rs. 1,65,000/-
- h) The certificate of turnover obtained from certified Chartered Accountant (CA) for the period of 1996 to 2011 is Rs. 2,07,39,695/- and 0.25% of the turnover is Rs. 51,850/-
- i) Total penalty to be paid by the proponent as per SoP of MoEF & CC, Govt. of India dtd. 07.07.2021 for violation is (1% of the project cost + 0.25% of turnover) = Rs. 1,65,000/- + Rs. 51,850= Rs. 2,16,850/- (Rupees two lakhs sixteen thousand eight hundred fifty only).
- j) The proponent has intimated that they have suo-moto reported the violation and claimed that they may be allowed to pay half of the total penalty calculated as SoP of MoEF& CC, Govt. of India dtd. 07.07.2021 for violation. But, violation was observed by SEAC, while considering the TOR and they have not suo-moto applied for violation.
- k) 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.

After detailed discussion, the SEAC recommended for grant of Environmental Clearance for production of 90043 TPA Iron Ore in respect of Nangalsila Iron ore mines located in village Nangalsila and Murumdihi over an area 45.333 ha. of non-forest land under Tahasil - Kusumi in District - Mayurbhanj with the following specific conditions in terms of the provisions of the MoEF&CC, Govt. of India notification dated 14th March, 2017 and SoPs for violation cases issued by the MoEF&CC, Govt. of India in addition to the stipulated conditions as per **Annexure- C. 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 ` 19,62,500/- (Rupees Nineteen lakh sixty-two thousand five hundred only) towards the cost of assessment of Environmental / Ecological

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damage due to violation as well as Natural and Community Resource Augmentation Plan as the proponent has gone in excess of production of Iron ore beyond approved limit of production under EC.

- (ii) The project proponent shall be required to submit a bank guarantee of an amount of ₹ 19,62,500/- (Rupees Nineteen lakh sixty-two thousand five hundred only) towards Remediation plan and Natural and Community Resource Augmentation plan towards violation to be deposited 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).
- (iv) The proponent has to abide by the SoPs for violation cases issued by the MoEF&CC, Govt. of India on dtd. 07.07.2021 and deposit separately (other than BG) an amount of ₹ 2,16,850/- (Rupees two lakhs sixteen thousand eight hundred fifty only) towards the penalty for violation as per SoP of MoEF & CC, Govt. of India dtd. 07.07.2021.
- (v) 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.
- (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 may be prescribed as special condition in EC.
 - (c) The Project Proponent shall not divert the natural nallah for mining purpose without permission from competent authority.
 - (d) Since details of Nallah etc. are given in Table point 7 and 8 and also submitted a real time video, the PP may include the layout showing the actual activities etc. during submission of periodic compliance.
 - (e) The project proponent should submit certified site plan showing details of location of existing natural nallah and the dendritic surface drainage system feeding to the above mentioned nallah for effective discharge of surface runoff, location of proposed garland drain, rainwater collection pits and location of overburden as well as mine waste dump etc. as per the approved mining plan.
 - (f) Stone wall will be constructed along both sides of the nallah before commencement of mining operation
 - (g) Mine management shall explore the possibility to create adequate storage facility to store the runoff water for usage in non-monsoon season.

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- (h) Mine drainage shall be suitably treated to meet the prescribed standards before being discharged outside. In no case the drainage will be released to the nearby land.

ITEM NO. 07

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR BENTAKARPADA SAND QUARRY (UNDER CLUSTER APPROACH) IS A SAND MINING PROJECT OVER AN AREA OF 25.00 ACRES/10.12HA LOCATED IN VILLAGE BENTAKARPADA, TAHASIL- BARANG IN DISTRICT CUTTACK BY SRI SUBASH CHANDRA ROUT - EC

1. This proposal is for environmental clearance for Bentakarpada sand quarry (under cluster approach) is a sand mining project over an area of 25.00 acres/10.12 Ha located in village Bentakarpada, Tahasil- Barang in District Cuttack of Sri Subash Chandra Rout.
1. **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.
2. The Quarry lease has granted by the Tahasildar, Baranga to the applicant (successful bidder) Sri Subash Chandra Rout, At-Trisulia, Po-Baranga, Cuttack for mining of river sand (I) for five years.
3. As per the Director of Geology, Odisha, the mining plan has been approved by the Deputy Director of Geology, Bhubaneswar, Odisha vide memo no. GXV(j)- 152/2018/545/DG on dated 21.01.2019.
4. **TOR details:** The Terms of Reference (ToR) has been issued by SEAC, Odisha vide Letter No. SIA/OR/MIN/61621/2021 on dated 29.07.2021.
5. **Public hearing details:** The Public Hearing in respect of Environmental Impact Assessment for Bentakarpada Sand Quarry (under cluster approach) of Sri Suresh Chandra Rout over an area of 10.12Ha. in village Bentakarpada under Barang Tahasil in Cuttack district, Odisha was conducted on 22.06.2022 at 11.30 A.M at the field adjacent to Bentakarpada Sand Quarry under Barang Tahasil of Cuttack. Issues raised in public hearing were dust pollution, water sprinkling on road, not to construct road across the riverbed for the sand quarry, not to construct road through CDA side. Total expenses to be incurred for the action plan is 6 lakhs.
6. There is an another mines within 500 meters of the proposed quarry i.e., Kathajodi River Sand, Tangarhuda of Cuttack Sadar Tahasil, The distance of Kathajodi River Sand, Tangarhuda from the proposed quarry Bentakarpada Sand quarry is 210 meters. This mine had obtained Environment Clearance from SEIAA, Odisha vide letter no. 6183/SEIAA dated 01.11.2018. The Tangarhuda Sand Quarry (Kathajodi R/S) is over an area of 35.00 acres or 14.17 ha. of Smt. Rajashree Behera at village Tangarhuda, Tahasil Sadar Cuttack, District Cuttack.
7. **Location and connectivity:** The proposed project is for the extraction of sand from the allotted Khata No.-57, Plot No-70p, Kissam- Nadi. The project is in survey of India toposheet no. 73H/14 and 73H/15 and bounded between the latitudes of 20°27'57.05"N to 20°28'4.9"N and longitudes of 85°19'31.2"E to 85°49'48.06"E. Nearest road is Cuttack- Athagarh road which is located at a distance of 0.7km from quarry lease area. This site is well connected to NH-16 at distance of 6.4kms and State Highway at 2km. Nearest Airport is Bhubaneswar Airport at 24km. The major district road is Banki road which is located at 1.9kms. Nearest railway lines is Naraj-Marthapur railway line which is located at distance of 4.90 kms from the lease area. The nearest road bridge

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is located at a distance of 1.34km and railway bridge at 8.80km from the lease area. River embankment is at a distance of 500m from the lease boundary. Nearest sanctuaries are Chandaka Elephant sanctuary at 7.50km and Nandankanan Sanctuary at 7.70km.

8. **Topography and drainage:** The proposed project land is the government land leased for excavation of river sand. There will be no change in land use pattern after the end of plan period as the land will remain as the part of Kathajodi riverbed and the quarry area will be replenished during the rainy season. The Sand bed is on the Kathajodi River. The sand bed deposit represents a gentle sloping to almost flat terrain with highest altitude of 32mRL. The drainage of the district is mainly controlled by rivers like Mahanadi, Kathajodi, Kuakhai, Birupa, Chitraptala, Sidua, Luna and Devi. The river basins are much wider and the sand sources are very much suitable for construction purposes. Being highest order of streams, the energy of the streams is less and the suspensions including the river sand are deposited through sedimentation.
9. **Reserves and total production:** The Geological reserves of the proposed project is estimated to be 303510 cum and mineable reserves is 274920 cum. The rate of proposed production will be maximum up to 105000Cu.m per annum for the period of 5 years.

Year Wise Production Plan	
Year	Production (m³)
1st Year	105000
2nd Year	105000
3rd Year	105000
4th Year	105000
5th Year	105000
Total	525000

10. **Mining method:** The method of excavation of sand from Sand quarry will be semi mechanized open cast mining. The mode of the deposits, geomorphology of the area and its hydrological condition are some of the factors that favor the open cast method of mining. In this deposit, the mining is done by dry pit method i.e. Sand will be excavated within the active channel on dry intermittent or ephemeral stream beds. The excavator is used for removal of sand from the pits. The sands are extracted, loaded and transferred from pits to the users through trucks and tractors. The mining is done on single shift basis. Benching pattern is not feasible in case of sand, as the angle of repose of sand is 35°, based on this the Ultimate pit slope Limit has been taken as 35°. The maximum depth of mining will be of 2.50 m or up to water table whichever is less.
11. A temporary approach road will be constructed through the riverbed to Cuttack- Banki Road (1500m) through which the vehicles will carry the sand to the user agency. This road connects riverbank road and finally connect to NH 16. There will be movement of 45 nos of vehicles in this road for transportation of sand. The river bank road connect to Banki road which is two lane one way (60 ft wide) is black topped road. There is one school present along the cuttack – banki road used for transportation of sand.

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12. **Replenishment study:** Replenishment study for pre & post monsoon period was carried on 20.05.2022 and 21.11.2022 respectively. 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. The coordinates of the base point is 2264292.454 N and 377988.080 E with RL 26.00 m. Ground survey by total station on 11 numbers of cross sections for pre monsoon and post monsoon and 1 numbers of longitudinal sections were taken. Surveyed area was covered about 11.00Ha. within which the mining lease area is there. Width of the river measured at 27 places is 2270m (Average width). The quantity of sand replenishment within the source during the year 2022-23 as per surface area method is 69580cum and cross-sectional method is 78408cum.
13. **Baseline study details:** Baseline monitoring period was carried during March to May 2021.

PERIOD	March 2021 to May 2021	Applicable Standards
AAQ PARAMETERS AT LOCATIONS 8	PM2.5 – 25.6 to 51.3 µg/cu.m	60 µg/cu.m
	PM10 – 43.3 to 77.6 µg/cu.m	100 µg/cu.m
	SO2 – 4.1 to 13.3 µg/cu.m	80 µg/cu.m
	Nox –12.3 to 28.3 µg/cu.m	80 µg/cu.m
Ground water Quality at 4 Location	pH – 6.8 to 7.1	6.5 to 8.5
	Total Hardness – 80 – 180 mg/l	600 mg/l
	Chloride - 20 to 50 mg/l	250 mg/l
	Fluorides – 0 to 0.05 mg/l	1.5 mg/l
	TDS – 90-350 mg/l	1000 mg/l
	Heavy metals (Cd <0.001, As <0.001, Hg<0.0005) mg/l	Heavy metals (Cd <0.003, As <0.01, Hg<0.001) mg/l
Surface water at 2 locations	pH – 8.0 to 8.1	
	Dissolved Oxygen – 7.1 to 7.3 mg/l	
	Biochemical Oxygen Demand – < 1 mg/l	
	Chemical Oxygen demand – < 5 mg/l	
Noise at 8	Day (dBA Leq) 40.1 to 53.6	55

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locations	Night (dBA Leq) - 32.4 to 46.3	45
Soil Quality at 4 locations	pH – 6.7 to 7.2, Potassium – 47 to 99.5 Kg/ Ha, Phosphorous – 23.2 to 42.7 Kg/ Ha, Nitrogen – 87.9-138.1 Kg/Ha, Electrical Conductivity- 155 -300 ms/Cm	

14. **Water requirement:** For drinking & domestic purpose, water requirement will be 1 KLD, water requirement for green belt development and dust suppression will be 2 KLD. So total water requirement will be 3KLD.
15. **Power/fuel requirement:** No use of electric power as the operation will be done in daytime. However solar lights will be used for day to day living purposes. Trucks and Tractors will be used for transportation. The approximate quantity of the fuel/Diesel used per day is 100Lit/day.
16. **Greenbelt:** Plantation has been proposed on both sides of the roads as greenbelt to provide cover against dust emission. A massive plantation will be done along the riverbank of the lease area to mitigate the negative impact of mining.
17. **Employment generation:** Due to the operation of mines, 54 people (out of which, 5nos. are skilled, 15nos. are semi-skilled, 30 nos. are unskilled and 4 nos are management & supervisory. will be directly employed in the mines and about 100 people will indirectly be employed for other allied activity related to mining.
18. **Project cost:** The estimated cost of the proposed project comes around 10lakh. EMP cost breakup is given in following table:

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

19. **Environment Consultant:** The Environment consultant **M/s Kalyani Laboratories Pvt Ltd, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee.
20. The SEAC in its meeting held on dated 03-03-2023 recommended the followings;
- A) The proponent may be asked to submit the following information and documents for further processing of the EC application.
- i) Copy of permission from the Irrigation Department for construction of temporary approach road on the water channel.

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- ii) Another sand mine do exist near to the proposed quarry (around 200m away).The said sand mine is in operation having EC in the year 2018. Copy of such Environmental Clearance shall be submitted.
 - iii) Justify, as to why this will not be considered under cluster approach.
 - iv) Copy of lease documents.
 - v) Lease granted in 2019, why this has not been considered for EC since now?
- B) The proposed site shall be visited by Sub-Committee of SEAC to verify the cluster approach as well as mining activity, if any has been carried out at the site.

21. The proposed site was visited by the sub-committee of SEAC on 02.06.2023. Following are the observations of the sub-committee as mentioned below:

- a) PP, RI and Consultant were present along with other team members. The Mine is in Kathajodi river and there are no ongoing mining activities.
- b) The area was shown by the RI. It was observed that although patches of bushes available in the lease area, there is enough sand available for mining. The approach road to be used is in the opposite side of CDA of the river.
- c) There is a small stream at one end flowing (now almost dried up), so required permission from Irrigation department to be taken for transportation within the river.
- d) There is another sand mine under operation with a distance of about 200 m. R.I. and PP explained that the same was under Cuttack Tahasil and already got EC long back. Current site is under Baranga Tahasil. PP was asked to submit required documents as asked during presentation as it comes under cluster.
- e) No bridge or high-tension line is nearby and it is away from embankment.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Copy of permission from the Irrigation Department for construction of temporary approach road on the water channel.	Due Certificate vetted by the Office of the Executive Engineer. Prachi Division. Bhubaneswar herewith attached as Annexure-I .	Copy of permission from the Irrigation Department for construction of temporary approach road has been submitted.
2.	Another sand mine do exist near to the proposed quarry (around 200m away). The said sand mine is in operation having EC in the year 2018. Copy of such Environmental Clearance shall be submitted.	Copy of the EC letter of another existing sand mine herewith attached as Annexure-II .	Tangarhuda Sand Quarry (Kathajodi R/S) of Smt. Rajashree Behera is another sand mine granted EC vide letter no. 6183/SEIAA dated 01.11.2018.
3.	Justify, as to why this will not be considered under cluster approach.	The Tangarhuda Sand Quarry (Kathajodi R/S) over an area of 35.00 acres or 14.17 ha at village Tangarhuda, Tahasil Sadar Cuttack, District Cuttack is located at a distance	-

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		of 210m from the lease area. The mines have obtained environment clearance from SEIAA. Odisha vide letter no. 6183/ SEIAA dated 01.11.2018. As this mine has already obtained EC. The application has been made for Bentakarpada Sand Mines only. However during the preparation of EIA/EMP report the impact has been assessed taking into the consideration of both mines.	
4.	Copy of lease documents.	Copy of lease document attached as Annexure-III.	submitted
5.	Lease granted in 2019, why this has not been considered for EC since now?	Though the mines have been granted in 2019 and the mining plan was approved in 2019. However due to change in connecting route (due to restriction of drinking water pipeline overhead project) to the mines we have modified the mining plan and also due to the Covid-19 situation, it took longer time and modified mining plan was approved in Dec2020. Then after we made the application for EC and obtained approved ToR in July 2021. After that the EC process occurs as usual & now we are in the final stage of clearance.	submitted
6.	As per the suggestions of the Sub-Committee during their site visit on dated 02.06.2023. Replenishment study report along with satellite map of the proposed project required to be Submitted.	Replenishment Study Report attached as Annexure-IV. Satellite Map of the Bentakarpada Sand Bed attached as Annexure-V.	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 for extraction of sand as per replenishment study i.e. 838.96 cum valid upto lease period with stipulated conditions as per **Annexure – D** 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 as per **Annexure – E.**
- b) Extraction should not exceed quantity replenished and depth as per replenishment study report. Regular replenishment study as per guidelines to be conducted and report to be submitted.
- c) Provision of Bio-toilet shall be made at the site.
- d) Avenue plantation and plantation on both sides of the haulage road in consultation with/ on the advice of concerned Forest Department, Government of Odisha & W.R. Department

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Government of Odisha as well.

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

ITEM NO. 08

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF BAITARINI RIVER SAND BED OVER AN AREA OF 5.26 HA. IN VILLAGE DIMIRIA, TAHASIL HATADIHI IN KEONJHAR DISTRICT OF SRI CHINMAY KUMAR NAYAK – EC

1. This proposal is for Environmental Clearance of Baitarini River Sand Bed over an area of 5.26 ha. in village Dimiria, Tahasil Hatadihi in Keonjhar district of Sri Chinmay Kumar Nayak.
2. **Category:** The project is categorized in Category B1 of Schedule under Item no. 1(a)-Mining of Minerals in the EIA notification, 2006 and its subsequent amendments.
3. Mining Plan has been approved for the project under Rule 28(4) of the Odisha Minor Mineral Concession Rule-2016 in name of Tahsildar vide Lr. No. 2374/cz dated 30.07.2020 by Joint Director Geology Keonjhar.
4. In compliance to the notification issued by the Ministry of Environment and Forest and Climate Change Notification no. S.O.3611 (E) New Delhi dated 25-07-2018 the preparation of district survey report of river sand mining in Keonjhar district has been prepared in accordance with Clause II of Appendix X of the notification and New Sairat source namely Dimiria Sand Quarry in Khata No 218, Plot No 1689 Kisam- Nadi of area 5.26 Ha. was recommended.
5. Lease obtained by Sri Chinmay Kumar Nayak as successful bidder for 5 Years vide Lr. No. 6711 dated 29.10.2020 through auction.
6. **TOR details:** Terms of Reference (ToR) of proposed Sand mining project has been issued vide letter No 1505/SEIAA, Odisha (File no-SIA/OR/MIN/62502/2021) dated 17.06.2021.
7. **Public hearing details:** The Public Hearing meeting was held on dated 29.07.2022 at 11:00 am at Dimiria Village in Keonjhar district. Issues raised during public hearing are adequate measures should be taken for the environment protection, employment to the locals and maintenance of roads. Budget incurred for action plan of the issues raised in the Public Hearing of Dimiria River Sand Mine is 5 lakhs.
8. **Location and connectivity:** The proposed lease area of Baitarani River Sand Bed Quarry situated at village Dimiria, Tahasil-Hatadihi, District-Keonjhar, Govt.Land. The lease area under reference featured in the Survey of India Topo sheet no. F45O/8 is on Khata No. 218, Plot No.1698 (applied for modification in plot no. from Plot no. 1689 to plot no. 1698 mentioned in Mining Plan), Kissam- Nadi. The geo coordinates of the lease area is 21°02'32.84"N 86°15'10.84"E to 21°02'32.80"N 86°15'10.40" E. The area is located 6.37km from District Headquarters Keonjhar and 100Km from State Capital Bhubaneswar. Nearest railway stations is at Baitarani railway station at a distance of 6.18Km. The lease area can be approached from National Highway NH-16 (Chennai-Kolkata) is ~11.65Km away from the ML area. State Highway SH-53 (Bonth- Anandpur) is ~1.0 km away (Aerial Distance). Nearest Airport is Bhubaneswar Airport which is at a distance of 97.85Km.

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Environmental Scientist, SEAC

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. The lease area surrounded mostly with agricultural lands. In general, the drainage pattern is of both dendritic and radial types.

10. **Reserves and total production:** As estimated, geological reserve of sand is 105200 CuM and mineable reserve is 55684 Cu.M. During the plan period, a total of 11137 cum / Annum sand will be extracted. Total production is 55,685 Cu. m during the plan period.

YEAR	Surface area in m ²	Thickness in mtr	PRODUCTION (m ³)
1 ST YEAR	11137	1	11137
2 ND YEAR	11137	1	11137
3 RD YEAR	11137	1	11137
4 TH YEAR	11137	1	11137
5 TH YEAR	11137	1	11137
TOTAL			55685

11. **Baseline details:** To depict the present environmental scenario, data on environment factors like meteorology, air, water, and soil, have been collected & analysed during the Winter season starting from March 2021 to May 2021.

a) Ambient Air Quality: The monitoring results of ambient air quality were compared with the National Ambient Air Quality Standards (NAAQS) Prescribed by MoEFCC; GoI Notification dated 16.11.2009. The baseline levels of PM10 (38– 65µg/m³), PM2.5 (21– 45µg/m³), SO2 (4 – 6.5µg/m³), NO2 (9.0– 13.2µg/m³). The parameters monitored at the project area as per NAAQ standards are found to be within limits. It may be observed that all parameters at all stations are well within the limits prescribed by Central pollution control Board.

b) Noise levels: In Industrial areas daytime noise levels were about 48.0 dB (A) to 52.0 dB (A) during daytime and 40.0 dB (A) to 42.0 dB (A) nighttime, which is within prescribed limit by CPCB. In residential areas daytime noise levels varied from 48.0 dB (A) to 53.0 dB (A) and nighttime noise levels varied from 40.0 dB (A) to 43.0 dB (A) across the sampling stations. The field observations during the study period indicate that the ambient noise levels are well within the prescribed limit by CPCB (55 dB (A) Day time & 45 dB (A) Nighttime).

c) Surface water: The pH value ranges from 6.8 to 7.3 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 5.0 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 7.2 mg/l. BOD of the collected surface water sample ranges from 1.4 mg/l to 1.8 mg/l.

d) Ground water: 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 7.0 mg/l – 10.7 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 – 2.5 mg/l. It is observed that all the samples are within the permissible limit of IS 10500: 2012

- e) Soil quality: The pH of the soil samples ranged from 6.2 to 7.3. indicating that the soils are slightly acidic to moderately alkaline in nature. Nitrogen content ranged from 0.07 % to 0.09 %. Potassium ranged from 0.14 % to 0.18%.
12. **Replenishment study:** Considering a common safe workable area of 3553.94 m², it is observed that replenishment of 252.75 m³ has been done with an average thickness of 0.071m. The volume of sand available during post monsoon survey is around 2947.21m³, which can be treated as safe extractable within the framework of the study. Considering the volume of replenishment and availability of sand during post monsoon survey, 2947.21m³ of sand can be extracted during the 1st year proposed mining period.
13. **Mining method:** The project lies on the bed of Baitarini River. The project for production of Sand (minor minerals) from Dimiria Sand Quarry which has been proposed for a total production of 55,685 Cu.m during the plan period. The open cast manual method and transportation through dumpers and tractors will be carried out. No mining activity will be undertaken during the monsoon season. So, the material will be replenished during the monsoon season every year. The benching pattern is not required for sand mining. The maximum depth of mining will be of 1m or up to water table which is less. No drilling & blasting will be performed for production requirement.
14. **Water requirement:** The total water requirement will be approximately 1 KLD for different purposes like domestic, dust suppression, plantation purposes. Water will be taken from village Panchayat and nearby sources.
15. Domestic Wastewater will be disposed through septic tank. Will be cleaned in periodically
16. **Power/fuel requirement:** No electricity is required for operations of the mining; the mining will be worked out during daytime only. 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. Dumpers, tractors will be used for transportation. So, the approximate quantity of the fuel used per day is 80 Lts/day.
17. **Greenbelt:** About 250 saplings of local species will be planted under the green belt (safety zone) and non-mineralized area for five years.

S. No.	Saplings to be planted	Species	Place of Plantation
1	50	Neem, Peepal, Mango, Shisham, Sirish, Babool, Chakunda	Along the riverbank & Approach road
2	50		
3	50		
4	50		
5	50		
Total	250		

18. **Manpower requirement:** Total manpower requirement is 18 nos. Supervisory 1, Non-Supervisory 01 nos of person, Semi- skilled 2 nos. & Unskilled labourer 14 nos.
19. **Project cost:** The project proponent will incur a total cost of Rs. 80.00 Lakhs sand may vary from place to place and with magnitude of the sand mining. 2.0 % of capital cost has been

earmarked towards CER is Rs 1.60 Lakh. Environment Management Plan (EMP) cost includes capital cost of 5 lakhs and recurring cost of Rs 80,000 as mentioned in EIA

Particulars	Capital Cost	Recurring Cost
Dust suppression and Pollution Control	200000	150000
Environmental Monitoring	200000	150000
Plantation	100000	50000
Totals	500000	350000 (As mentioned in PPT)

20. **Environment Consultant:** The Environment consultant **M/s EHS360 Labs Private Limited**, along with the proponent made a presentation on the proposal before the Committee.

21. The SEAC in its meeting held on dated **12-04-2023** decided to take the decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Details of span of the bridge including length and width and distance of the bridge from the lease area duly certified by the concerned authority.	As per the Enforcement and monitoring Guide lines for the sand mining 2020, "Sand and gravel shall not be extracted upto a distance of 10x of the length of the span of the bridge on the downstream side. As the span distance is 26 m, so, 260 m distance can be maintained during mining operation. But here the lease area is located on the downstream side of Baitarani bridge, Mathurapur at a distance of 370 m. (Tahasildar letter attached) .	-
2.	Replenishment study should be carried out excluding Safety zone area.	As per the sand guideline 2020 replenishment study has been carried out during pre and post monsoon season of 2022. The estimation of sand available and replenishment occurred in the area estimated excluding the safety zone. From the study its reveals that the sand available for extraction during pre-monsoon is 1,832.79 Cum and post monsoon is 2,947.21 CuM. The replenishment in 3,553.94 sq.m of area is 252.75 CuM. Since there is no mining operation in the fy 2021-22, the study only shows the extractable quantity. Replenishment factor can only be arrived at if there any mining operation in the area. As per approved Mining Plan, the Geological reserve of sand of this lease area is 1,05,200 CuM and Mineable reserve is 55,684 CuM. Considering the above reserve, 2,947.21 CuM of sand	-

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Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		was available in common extractable area during the drone survey which may be taken for the 1 st year production.	
3.	There is a mismatch of recurring cost of EMP budget in EIA and PPT presented. This shall be clarified.	The capital cost for EMP both in EIA/EMP and presentation is same i.e Rs. 5.0 Lakhs. However, the recurring cost given in EIA/EMP was Rs. 0.8 lakhs / Annum. Recurring cost of 2.7 lakhs/ annum for third party NABL consultancy fee for monitoring has been earmarked which was added in the recurring expenses in the presentation. So, the recurring expenses EMP of 3.5 lakhs / Annum may kindly be accepted.	-

Considering the information furnished and the presentation made by the consultant, **M/s. EHS360 Labs Private Limited**, along with the project proponent, the SEAC recommended for grant of Environmental Clearance for the proposal **for extraction of 2947.21cum as per replenishment study report** valid upto lease period with stipulated conditions as per **Annexure – D** and following specific conditions:

- Amended EIA Notification dated 25th July, 2018, Guidelines for sustainable sand mining, 2016 and Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India shall be adhered to in execution of Mining as per **Annexure – E**.
- A minimum distance of 500 meter from the bridge shall be made part of safety zone due to presence of bridge and no mining shall be done in that area.
- Sand extraction shall be limited to quantity replenished and depth obtained in replenishment study report, after excluding safety zone area as per MoEF&CC guidelines and presence of 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. 09

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR MANGARAJPUR MAHANADI SAND QUARRY OVER AN AREA OF 14.00 ACRES OR 5.66 HA. HAVING KHATA NO.641(A.A.A), PLOT NO. 3720/3749 IN VILLAGE MANGARAJPUR UNDER BARAMBA TAHASIL OF CUTTACK DISTRICT OF SRI HARA SENAPATI - EC

- This proposal is for Environmental Clearance of Mangarajpur Mahanadi Sand Quarry over an area of 14.00 Acres or 5.66 Ha having Khata No.641(A.A.A), Plot No. 3720/3749 in village Mangarajpur under Baramba Tahasil of Cuttack District of Sri Hara Senapati.

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Environmental Scientist, SEAC

2. **Category:** The proposed project as per EIA Notification dated 14th September 2006 and subsequent amendments, falls under Category "B", Project or Activity 1(a)-Mining of Minerals.
3. **TOR Details:** Terms of Reference (TOR) was granted by SEIAA, Odisha vide letter no 1346/SEIAA dated: 24.05.2021.
4. Earlier EC was granted by SEIAA, Odisha vide letter no 4404 dated 17.08.2015.
5. Mining plan was approved by Deputy Director of Geology, Bhubaneswar. Vide letter no – 7431 DG, on dated 12.11.2020.
6. This is a new project and the lease has been granted to successful bidder Sri Hara Prasad Senapati by the Tahasildar, Baramba vide letter no- 05, dated 01.01.2021.
7. The said lease is an identified sairat source in District Survey Report, Cuttack in Pg – 54, Sl.no. - 90 prepared by Collector, Cuttack.
8. **Public hearing details:** Public hearing was conducted on 14.09.2022 at Village -Mangarajpur under Tahasil Baramba of Cuttack district. Issues raised during public hearing were dust pollution, noise pollution, fixed time limit for movement of sand transportation vehicles, sand should be lifted from exact location, sand transportation vehicles shouldn't move through social forest area and near school area and a particular road should be used for sand transportation. Budget earmarked for action plan of public hearing is Rs. 5 Lakhs.
9. **Location and connectivity:** Mangarajpur Mahanadi Sand Quarry is located in village Mangarajpur under Baramba Tahasil of Cuttack district, Odisha consisting over an area of 14.00 Acres/5.66 Hectares. The proposed lease area is featured in Survey of India toposheet no. 73H/7 and bounded between the Latitudes of N20°22'26.9" to N20°22'35.5" and Longitudes of E85°18'39.6" to E85°18'47.7" bearing Khata No.641, Plot No.3720/3749. The proposed lease area is located at a distance of 60 Km from the district headquarters Cuttack. The nearest railway station is Begunia Railway Station which is about 24.5 km from the mine lease area. The nearest airport is Biju Pattnaik International Airport, Bhubaneswar at about 55 km from the mining site. Nearest river embankment, electric transmission pole and road bridge is 2.4 kms,700 m and 12km respectively. As per Seismicity Map of India, the project location/study area falls in Zone II
10. **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. The lease area surrounded mostly with agricultural lands. There is no major impact of mining on the topography of the area. The mining lease area in riverbed will be replenished with sediments after monsoon and the area which in agriculture field will be reclaimed after mining.
11. **Replenishment study:** The present date survey by using UAV/Drone indicates the mineable sand deposit is around 26504cum. As per Sustainable Sand management guidelines potential sand deposits may be identified and Replenishment study may be done in regular intervals. Besides 60% of the above computed mineable reserve as above has been taken as available mineable reserve over the area as per MoEF Notification dated 25.07.2018. Maximum of 26504Cu.m of sand per annum may be allowed for mining activities. 60% of the mineable reserve

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is 15902cum. The maximum extraction limit as per sustainable sand mining Rule of MoEF Guideline is 15902cum.

12. **Baseline details:** The baseline data was collected for the pre-monsoon season i.e. Oct-21 to Dec 2021 in the 10 km study area results.

a) Air Quality Results - The maximum value for PM2.5 was observed, as 25.4 µg /m3 at Village- Ogalpur (A3) while 24 hours applicable limit is 60µg/m3 mixed use areas. The area observes average PM2.5 concentration in the range of 11.3-24.4µg/m3 with the lowest concentration of 11.3 µg/m3 recorded at Village-Ogalpur Area (A1). The maximum value for PM10 was observed, as 63.5µg/m3 at village- Ogalpur(A5) while 24 hours applicable limit is 100µg/m3 for mixed use areas. The area observes average PM10 concentration in the range of 34.2 -63.5µg/m3 with the lowest concentration of 34.2 µg/m3 recorded at Village-Ogalpur (A3).

The maximum value for SO2 was observed, as 18.3µg/m3 at Village- Ogalpur(A3) while 24 hours applicable limit is 80µg/m3 for industrial and mixed-use areas. The area observes average SO2 concentration in the range of 5.7- 18.3µg/m3 with the lowest concentration of 5.7 µg/m3 recorded at Village- & Ogalpur Area (A1). All the villages have observed value well under the prescribed limit.

The maximum value for NOX was observed, as 19.5 µg/m3 at Village- Mangarajpur(A2) while 24 hours applicable limit is 80µg/m3 for industrial and mixed use areas. The area observes average NOX concentration in the range of 8.4- 19.5-µg/m3 with the lowest concentration of 8.4 µg/m3 recorded at Village- Ogalpur(A5). All the villages have observed value well under the prescribed limit.

b) Ground water Quality results - Total 5 Groundwater samples and 5 surface water samples were analyzed and concluded that: The ground water from all sources remains suitable for domestic purposes as all the constituents are within the limits prescribed by drinking water standards by Indian Standards IS: 10500.

c) Surface water Quality results analysis it is evident that most of the parameters of the samples comply with IS-2296: 1992 Category “C” standards of CPCB, indicating their suitability for Drinking water source after conventional treatment and disinfection.

d) Soil Samples collected from identified locations indicate the soil is Loamy type and the pH value ranging from 6.37 to 6.68 which indicating that soil samples are neutral in nature.

13. **Reserves and total production:** As estimated geological reserve and mineable reserve of the proposed project is 28931 and 24679 cum. Annual production of the proposed project is 3000 cum/annum.

Year	Production (m3)
1st Year	3,000
2nd Year	3,000
3rd Year	3,000
4th Year	3,000
5th Year	3,000
Total	15,000

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Environmental Scientist, SEAC

- 14. Method of mining:** The project is a new mine and lies on the bed of Mahanadi. The project for production of Sand (minor minerals) from Mangrajpur Sand Quarry which has been proposed for a total production of 15,000 Cu.m during the plan period. The open cast manual method and transportation through dumpers and tractors. No mining activity will be undertaken during the monsoon season. So, the material will be replenished during the monsoon season every year. The benching pattern is not required for sand mining. The maximum depth of mining will be of 1m or up to water table which is less. No drilling & blasting will be performed for production requirement.
- 15. Water requirement:** Total water requirement approx, 5 KLD will be required for different purposes like Domestic, Dust suppression, plantation purposes & sourced from as per the availability.
- 16. Power/fuel requirement:** Minimal power required for office shall be taken from the General Electric supply of the area. Dumpers, tractors will be used for transportation. So, the approximate quantity of the fuel used per day is 0.014 KLD diesel is required as fuel.
- 17. Green Belt:** It is proposed to have plantation on both sides of the roads as greenbelt to provide cover against dust dissemination. Riverbanks will be strengthened by way of plantation on the banks. Plantation will also be carried out as social forestry programme in village, school and the areas allocated by the Panchayat/State authorities. Native plants and other local species will be planted. A suitable combination of trees that can grow fast and have good leaf cover shall be adopted to develop the greenbelt. It is proposed to plant 250 Numbers of native species will be planted during the 5-year plan period.

S. No.	Saplings to be planted	Species	Place of Plantation
i)	50	Neem, Mango, Peepal, Shisham, Sirish, Babool, Chakunda	Along the roads, in schools and public building and other social forestry programme
ii)	50		
iii)	50		
iv)	50		
v)	50		
Total	250		

- 18. Manpower requirement:** In the mine for total production of 3,000 cum/annum of River Sand and 6 nos. of person are to be employed daily. The indirect employment opportunities for hired vehicles, etc. also can be generated to full fill the day-to-day requirements of the mining personals.
- 19. Project Cost:** The project proponent will incur a total cost of Rs. 290.00 Lakhs sand may vary from place to place and with magnitude of the sand mining. EMP cost includes a capital cost of Rs. 14,50,000 and recurring cost of Rs. 5,80,000.

Particulars	Capital Cost	Recurring Cost
Environmental Monitoring	3,00,000	1,00,000
Plantation	2,00,000	20,000
Dust Suppression	5,00,000	4,50,000
Others (Pollution Control Equipment)	4,50,000	10,000
Total	14,50,000	5,80,000

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Environmental Scientist, SEAC

20. The Environment consultant **M/s EHS360 Labs Pvt Ltd (EHSL), Chennai - 68** along with the proponent made a presentation on the proposal before the Committee.
21. The SEAC in its meeting held on dated **24-04-2023** decided to take the decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Revised Replenishment Study along with all the details as there is net loss of replenished sand in the present replenishment study report.	I hereby said that first replenishment report of Mangarajpur Mahanadi Sand Quarry was prepared by surface area method so some error raised in reserve, to rectify this error now reserve measured by cross-sectional method and replenishment report prepared accordingly.	Replenished sand deposited in the lease area is 17% i.e. 4394cum.

22. The Committee observed the following from revised replenishment study report.

- a) As per Table-9 (Page 11 of Mangarajpur Mahanadi sand quarry replenishment report), which presents the summary of mineable quantity of river sand in the mining lease area during pre (May) and post (November) monsoon drone survey in 2022 the replenished quantity of sand is noted to be 4394 cum (The difference of 22110 and 26504 being the measured quantity of mineable sand during pre and post monsoon survey). Hence, the stated quantity of 15902 cum as per MoEF&CC, Govt. of India guideline is not correct.
- b) In 1st Report, Pre monsoon done in July 22, Post monsoon date not found in the report. In 2nd Report, Pre monsoon done in May and Post monsoon date not given. Both reports are manipulated. It looks like a new mine. As per report sand is available.
- c) There are also variation in geological and mineable reserve.
 First survey:
 In the initial report Geological Reserve: 39659cum and mineable reserve: 34759cum.
 In the ADS report Geological Reserve: 28020cum and mineable reserve: 22110cum.
 In second survey:
 Geological Mineable Reserves are same in both the reports.
 Moreover, PP has adopted two different methods: first survey by Volumetric and post-monsoon by Drone.
- d) When Table-4 and Table-5 (i.e. Geological resource and mineable resource calculations) are compared, it is seen that section-D (A-A', B-B'.... etc.) is same for the cases but cross-sectional areas, A are different while same method, same date has been used for surveying. However, no image is available where sections are shown.
- e) Two different methods used for pre monsoon and post monsoon study. Hence not comparable.
- f) In old study there was net loss of sand as per replenishment study. On asking about the same Revised study is submitted and it is mentioned that instead of surface, sectional study approach is taken. It appears to be doubtful and manipulated.

Proceedings of the SEAC meeting held on 19.06.2023 (Old proposals – compliance received)

- g) As per old study pre monsoon potential area is 49656 sq m and sand thickness is 0.7 m. In revised study, the volume of pre monsoon sand is reduced, which quite evidently is to show sand deposition in the area (as old report had shown net loss.) If we back calculate this amount of sand then the thickness gets reduced to 0.4453 m which looks quite arbitrary.
- h) In the revised study eight sections are shown. In FF section minable reserve shown is more than geological reserve (136 minable and 127 geological).
- i) Nowhere any RL is mentioned.

After detailed discussion, the committee recommended the following:

- i) The revised replenishment study report submitted by the proponent is not acceptable for the reasons as pointed out at para 22 above.
- ii) The proposal to be considered after receipt of fresh replenishment study report incorporating the comments of the members at para 22 above.


Member Secretary, SEAC

Proceedings of the SEAC meeting held on 19.06.2023 (Old proposals – compliance received)

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE OF M/S. AVIRA DISTILLERY PRIVATE LIMITED FOR GRAIN AND MALT BASED DISTILLERY PLANT PROJECT FOR OF 30 KLPD ALONG WITH 1.5 MW CO-GENERATION POWER PLANT LOCATED AT VILLAGE-BARAPADA, P.O. GARUDAGAON TANGI, DISTRICT – CUTTACK, ODISHA OF SRI KISHORE KUMAR MAHANTA - EC.

A. SPECIFIC CONDITIONS:

- i) ESP along with stack of adequate height shall be provided to coal/biomass fired boiler to control particulate emission within 50mg/Nm³.
- ii) The proponent shall obtain permission from concerned authority for drawal of water.
- iii) Spent wash shall be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS will be sent to dryer to form DOGS. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment. Treated effluent will be used for makeup water of cooling towers and water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB and recycle/reuse.
- iv) As proposed, no effluent from distillery shall be discharged outside the plant premises and Zero discharge shall be adopted. Water consumption shall be reduced by adopting 3 R's (Reduce, Reuse and Recycle) concept in the process.
- v) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- vi) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and SEIAA. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids shall be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office at Bhubaneswar, SEIAA, Odisha and SPCB.
- vii) Continuous online monitoring (24x7) system to be installed within treatment plant and data to be uploaded to company's web site and also provided to respective Regional Office of MoEF&CC, Govt. of India, concerned SPCB/CPCB and SEIAA, Odisha.
- viii) The project has to restrict entry of surface water to the shop floors to prevent contamination. Accordingly, drainage system has to be developed within the project area. Contaminated water and effluents from shop floors are to be taken by separate drains to effluent ponds for treatment which will also include boiler blow down water.
- ix) All effluents have to be treated and re-used to achieve zero discharge. Care should be taken to prevent any flow towards the agriculture land on the downstream side towards the South.
- x) Storage and management of all raw-materials like coal, husks etc. have to be planned properly to avoid pollution.
- xi) Bagasse storage shall be done in such a way that it does not get air borne or fly around due to wind.
- xii) The cogenerated Carbon Dioxide gas shall be bottled and disposed as a saleable product.
- xiii) Boiler ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly

ash & dust shall be avoided. Bagasse ash and coal ash shall be stored separately.

- xiv) Fire-fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire-fighting shall be made to control fire from the alcohol storage tank. DMP shall be implemented.
- xv) Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.
- xvi) Dedicated parking facility for loading and unloading of materials shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xvii) As proposed, green belt over 0.93 Ha. (33%) of the total project area shall be developed within plant premises with at least 05 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xviii) All the commitments made during the Public Hearing/Public Consultation meeting held on 10.06.2011 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xix) The project proponent shall ensure implantation and adhering of all conditions and guidelines given in the notifications of MOEF&CC, Govt. of India dated 6th July 2018 and any other notifications relevant to the industry, to ensure Zero Liquid Discharge (ZLD) and safe quality monitoring of all products and safety in operation of the plant.
- xx) The proponent shall create adequate testing facilities to monitor the process and quality of all products.
- xxi) Quality of all products to be produced in the plant shall be monitored and tested for all batches on routine basis, by following standard procedures and norms before sent out of the plant and records of all analytical data to be maintained.
- xxii) The proponent shall get the products tested by outside certified agency for their safe use from time to time and all such records to be maintained.
- xxiii) The DDGS intended to be used for animal feed shall be tested for its safety by appropriate authority before use.
- xxiv) The proponent shall adhere to all commitments / compliance submitted for the project.

B. STANDARD CONDITIONS:

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, (in case of the presence of schedule-I species in the study area).

- iv. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- v. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.
- vi. The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.

II. **Air quality monitoring and preservation**

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. 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 PM₂₅ in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x 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, (case to case basis small plants: Manual; Large plants: Continuous) .
- iii. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB, SEIAA, Odisha and Regional Office of SPCB along with six- monthly monitoring report.
- iv. 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.
- v. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be complied with.
- vi. Sulphur content should not exceed 0.5% in the coal for use in coal fired boilers to control particulate emissions within permissible limits (as applicable). The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- vii. The DG sets shall be equipped with suitable pollution control devices and the adequate stack height so that the emissions are in conformity with the extant regulations and the guidelines in this regard.
- viii. Storage of raw materials, coal etc shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

III. Water quality monitoring and preservation

- i. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises (applicable in case of the projects achieving ZLD) and connected to SPCB and CPCB online servers.
- ii. Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises (applicable in case of the projects achieving the ZLD).
- iii. Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.
- iv. The effluent discharge shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, or as specified by the State Pollution Control Board while granting Consent under the Air/Water Act, whichever is more stringent.
- v. Total fresh water requirement shall not exceed the proposed quantity or as specified by the Committee. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.
- vi. Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system.
- vii. The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial operations within the plant.

IV. Noise monitoring and prevention

- i. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- ii. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation.
- iii. 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. The energy sources for lighting purposes shall preferably be LED based.

VI. Waste management

- i. Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.
- ii. Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.

- iii. The company shall undertake waste minimization measures as below:-
 - a) Metering and control of quantities of active ingredients to minimize waste.
 - b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - c) Use of automated filling to minimize spillage.
 - d) Use of Close Feed system into batch reactors.
 - e) Venting equipment through vapour recovery system.
 - f) Use of high-pressure hoses for equipment clearing to reduce wastewater generation

VII. Green Belt

- i. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant

VIII. Safety, 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. Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
- 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.
- vi. There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places

IX. Corporate Environment Responsibility

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

with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the MoEF&CC, Govt. of India and its Regional Office, SEIAA, Odisha along with the Six Monthly Compliance Report.
- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

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, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- 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 SEIAA, Odisha, Regional Office as well as the MoEF&CC, Govt. of India 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 Expert Appraisal Committee.

- x) No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Odisha and Ministry of Environment, Forests and Climate Change (MoEF&CC).
- 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 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 Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- 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 “DIAMOND CITY CUTTACK” RESIDENTIAL APARTMENT ALONG WITH COMMERCIAL BUILDING PROJECT LOCATED AT PLOT NO. - 2340, 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

PART A - SPECIFIC CONDITIONS:

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc. as per National Building Code including protection measures from 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. The proponent shall obtain prior clearance from the Standing Committee of the National Board for Wild Life if the project will be located within any Eco-Sensitive Zone of Wild Life Sanctuary.

TOPOGRAPHY AND NATURAL DRAINAGE

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

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

9. As proposed, fresh water requirement from ground water shall not exceed 180.5 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total

annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of 10 nos. shall be provided.
17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.
18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

SOLID WASTE MANAGEMENT

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

23. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste generated from project shall be obtained.

SEWAGE TREATMENT PLANT

24. Sewage shall be treated in STP of capacity 280 KLD. The treated effluent from STP shall be reused for flushing, landscaping, floor & car washing.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

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

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

AIR QUALITY AND NOISE

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

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

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 2514.85sqm (25% of total plot area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

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

TRANSPORT

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

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

ENVIRONMENT MANAGEMENT PLAN

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

OTHERS

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

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

PART B – GENERAL CONDITIONS

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

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

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

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR FOR PRODUCTION OF 90043 TPA IRON ORE IN RESPECT OF NANGALSILA IRON ORE MINES LOCATED IN VILLAGE NANGALSILA AND MURUMDIHI OVER AN AREA 45.333 HA OF NON-FOREST LAND UNDER KUSUMI TAHASIL IN MAYURBHANJ DISTRICT OF SHRI GOURI SHANKAR CHOUBEY – EC UNDER VIOLATION CATEGORY

(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-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease

area”.

- (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). 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. PM₁₀, PM_{2.5}, NO₂, CO and SO₂ 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 PM₁₀ and PM_{2.5} 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) An area of 3.40Ha shall be kept for public use as pond and road. Hence, remaining 52.956Ha shall be planted during life of the mine in a phased manner i.e. within a period of 20 years.
 - (x) Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office, MoEF&CC annually.
 - (xi) Industrial waste water (workshop and waste water from the mine) should be properly collected and treated in an ETP as proposed so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.
 - (xii) The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board.
- (IV) 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.

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

Stipulated Conditions:

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

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

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

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

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

Annexure - E

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

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