

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE, ODISHA HELD ON 14TH FEBRUARY 2023**

The SEAC met on 14th February 2023 at 10:30 AM in the Conference Hall of Odisha State Pollution Control Board, Bhubaneswar under the Chairmanship of Sri Sashi Paul. The following members were present in the meeting.

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|------------------------------|---|---------------------|
| 1. Sri Sashi Paul | - | Chairman |
| 2. Dr. K. Murugesan | - | Member Secretary |
| 3. Dr. Chittaranjan Panda | - | Member |
| 4. Prof. (Dr.) H.B. Sahu | - | Member (through VC) |
| 5. Prof. (Dr.) Abanti Sahoo | - | Member (through VC) |
| 6. Dr. Ashok Kumar Sahu | - | Member |
| 7. Er. Fakir Mohan Panigrahi | - | Member |
| 8. Prof. (Dr.) B.K. Satpathy | - | Member |
| 9. Dr. K.C.S Panigrahi | - | Member (through VC) |

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

A. CONSIDERATION OF CATEGORY B1 PROPOSALS (NEW PROPOSALS - 10 Nos.):

ITEM NO. 01

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR PROPOSED COMMERCIAL CUM RESIDENTIAL BUILDING OF M/S. MAHADEV GRIHA NIRMAN PVT. LTD LOCATED AT PLOT NO. 458, 454, 460, 459, 455 / 826 AND 455/796, KHATA NO. 170/168, 170/156, 170/214,170/215 OVER A BUILT-UP AREA 47283.66 SQM IN MOUZA-PADMALAVA NAGAR, TEHSIL-BARANGA, PS-CUTTACK SADAR 16, DIST - CUTTACK OF SRI RAVI KUMAR MODA - EC

1. This proposal is for environmental clearance of proposed commercial cum residential building of M/s. Mahadev Griha Nirman Pvt. Ltd located at Plot no. 458, 454, 460, 459, 455 / 826 and 455/796, Khata No. 170/168, 170/156, 170/214,170/215 over a built-up area 47283.66 sqm in Mouza-Padmalava Nagar, Tehsil-Baranga, Ps-Cuttack Sadar 16, Dist - Cuttack of Sri Ravi Kumar Moda.
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. **Project details:** Project site is spread on area of 11331.11 sq.m (1.133 ha. /2.80 acre). Project involves development of commercial cum residential building with the allied facilities like, club house, shops, waste management system, storm water management system, water supply system, sewerage system, firefighting management, adequate parking facility and green area. Built-up area of project is approx.47283.66 sq.m.
4. **Location and Connectivity:** The Project involves development of proposed commercial cum residential building located at Plot no. 458,454,460,459,455/826 and 455/796, Khata No. 170/168,

170/156, 170/214,170/215 in Mouza-Padmalava Nagar, Tehsil-Baranga, PS-Cuttack Sadar 16, Cuttack, Orissa. The Geographical coordinates are 20°21'12.7"N and 85°46'17.4"E and fall within Toposheet no. F45T15. The Project site comes under Cuttack Development Authority and not located within ESZ, ESA and CRZ area. Site is flat land with average elevation of 39.92 m AMSL. Project site is well connected with Banki-Cuttack Road. Site connects to NH-16 which is at 7.52 km towards E direction and to SH 60 at 12.95 km in NE direction. Nearest Railway station is Bhubaneshwar New junction which is at 8.08 km away in S direction. Nearest Airport is Biju Patnaik International Airport at 22.22 km in S. Nearest river is Kathajodi River at 0.74 km, N. Nearest forest is Chudang Garh forest at 1.48, S and nearest habitation is Sandhapur is at 0.40 km, SW.

5. **Land area details:** The total plot area of the project site is 11331.11 sq.m (1.133 ha./2.80 acres). Project involves development of 257 nos. of residential apartments. Built-up area of project after development will be approx. 47283.66 sqm.

Table: Area details

S. NO.	DESCRIPTION	Total (SQ M)
i)	Plot Area	11331.11
ii)	Road effected Area	836.99
iii)	Net Plot Area	10494.12
iv)	Proposed Ground Coverage (29.75 % of total plot area)	3371.06
v)	FAR area (@3.19)	36099.9
vi)	NON-FAR area	11092.18
vii)	Built-up Area	47283.66
viii)	Green Area (@ 1 tree for 80 sqm of plot Plot area)	143 nos
ix)	Open Parking area (@ 8 % of plot Area)	825 sqm
x)	Paved Area (@ 10 % of plot Area)	1133.11
xi)	Open/Amenities (18.9 % of the plot area)	Landscape /green area: 995 sqm
xii)		Podium area: 988 sqm
xiii)		Total: 1983 sqm
xiv)	Height	BLOCK A, B, C : 44.95 mtr BLOCK D: 30.90 mtr CLUB HOUSE: 14.95 mtr
xv)	No of Dwelling Units	257

6. **Total Population:** Population estimated at the site is 1331 which includes residential, commercial, and floating population.

7. **Water requirement:** Source of water during operation phase will be ground water. Permission will be obtained from concerned authority prior extraction of ground water. Application for the same has been submitted via application no. 21-4/4571/OR/INF/2022. Total water requirement during operation phase is 171 KLD out of which domestic water requirement is 161 and freshwater requirement is 111 KLD as shown in table.

Category	Population/Area (sq m)/Capacity	Standard (LPCD)	Water Requirement (KLD)	Fresh Water Requirement (KLD)	Recycled Water requirement (KLD)
Domestic					
Residents	1157	135	156	109	47
Staff	58	45	3	0.9	2.1
Visitors	116	15	2	1.4	0.6
Total Domestic Water Demand			161	111	50
Landscape	995sq.m	3 ltr/sqm	5	-	5
Fire Fighting	-	-	1	-	1
DG cooling	680 KVA (2*250KVA +1*180KVA)	0.9 l/kVA/hr	4	-	4
Total		-	171	111	60

8. **Sewage generation:** Sewage generation from the site is expected to be 139 KLD which will be treated in STP of capacity 200 KLD proposed to be constructed at the site. Treated water from the STP will be used for flushing, firefighting, DG cooling and horticulture purpose.

9. **Power requirement:** Maximum power demand for the project during operation phase is estimated to be 1800 KVA. Source of power will be TPCODL. DG sets of total 680 KVA (2*250KVA +1*180KVA) will be provided as power back-up during power failure. The height of the DG Stacks will be 3-6 meter above building height. Provision of Solar power for lighting and water heating is there and generation of Solar Power as per the table given below.

Selection of SOLAR SYSTEM:					
a	Total Connected Load in kW			1872	KW
b	Solar Power Required in kW @ 5% of the Connected Load			93.6	KW
c	Solar Power In kW to be generated by Roof Top Solar Panels			94	KW
d	No. of Solar panel			100	Nos
SUGGESTED SOLAR SYSTEM : 100 Nos. of Solar Panels suitable for 94 KW LOAD AREA REQUIRED : 2.4 Sq.mtr Per Panel					

10. **Rainwater harvesting:** Rainwater harvesting pits are being proposed for artificial recharge of roof top rainwater within the project premises. Recharge pits will be filled with small pebbles or brick jelly or river sand and bore a well up to deep aquifer with a perforated pipe in permeable layer. As per norms for 100 sqm roof 6 cum volume rainwater harvesting pit structure to be

provided. For 3360 sqm roof area, volume of rainwater harvesting structure is 202 cum. Considering 13 nos of rainwater harvesting structure each rainwater harvesting structure will have de-silting tank and recharge shaft; volume of each de-silting tank is 1.2 cum and volume each Rainwater harvesting pit is 15.6 cum. Total no of rainwater harvesting structure is 13nos.

11. **Parking details:** Parking area required is 9272.59 sqm and parking area provided is 9289.99 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.

LOCATION	SINGLE 4 WHEELER /CAR PARKING	DOUBLE /DEPENDENT 4 WHEELER /CAR PARKING	2 WHEELER/ BIKE PARKING	HANDICAPED PARKING	TYPE OF PARKING
BASEMENT BLOCK A	13 NOS	0 NOS	51 NOS		COVERED PARKING
STILT -1 BLOCK B & C	87 NOS	41 NOS	85 NOS	2 NOS	COVERED PARKING
STILT -2 BLOCK B & C	101 NOS	17 NOS	75 NOS		COVERED PARKING
STILT -1 BLOCK D	0 NOS	16 NOS	28 NOS		2 STACK MECHANICAL COVERED PARKING
VISITORS PARKING NEAR TEMPLE	10 NOS	0 NOS	24 NOS		SURFACE PARKING
VISITORS PARKING NEAR CLUB HOUSE	6 NOS	0 NOS	12 NOS		SURFACE PARKING
FIRE TRUCK	1 NOS	0 NOS	0 NOS		SURFACE PARKING
AMBULANCE	1 NOS	0 NOS	0 NOS		SURFACE PARKING
217 NOS. OF SINGLE 4 WHEELER CAR PARKING 58 NOS. OF DEPENDENT / DOUBLE 4 WHEELER /CAR PARKING 16 NOS OF 2 STACK MECHANICAL CAR PARKING 2 NOS OF HANDICAPED 4 WHEELER /CAR PARKING 1 NO OF FIRE TRUCK PARKING 1 NO OF AMBULANCE PARKING 265 NOS OF 2 WHEELER /BIKE PARKING GRAND TOTAL 291 NOS OF 4 WHEELER /CAR PARKING					

12. **Traffic study:** Parking space has been provided in the basement, surface, and silt levels parking and the area given to parking is adequate for the proposed 257 units/flats. Further, 7.5-meter-wide roads are proposed in the plan which would not pose any mobility issue if provided. The present 2-lane road needs to be widened to 4-lane for accommodating the normal growth of traffic. The normal growth of traffic is so high that LOS will go beyond LOS C after 10 years without any project. Therefore, the road needs to be widened to 4-lane divided for maintaining LOS level at B.
13. **Firefighting:** The fire protection system for the building is to be designed as per the provisions of National Building Code - 2005 and the directions of local fire service authority. In addition to above, the fire extinguisher system is to be design in accordance with IS: 2190. Fire-fighting facilities provided at the site includes water sprinklers, UG and OH fire tanks, automatic fire alarms, manual call points, fire hooters, fire staircase, fire lifts, signage, smoke detectors, refuge area, DG sets compartmentalization and fireproof electrical installations.
14. **Greenbelt:** Green belt will be developed over an area of 1983 Sq.m by planting 152 nos. of the local species like Cadamba, Cassia, Jacranda, Bauhina, etc. Landscape /green area : 995 sqm out of which {Plantation (Green belt area)Area: 214.5 sqm (1.89.% of plot area) and Grass Lawn Area: 780.5 Sq.m (6.89 % of plot area).}Podium Green area : 988 Sq.m

15. **Solid waste generation:** During operation phase, waste comprise of municipal waste. It is estimated that approx. 612 kg per day of waste is to be generated from the project site. STP sludge expected to generate is approximately 14 kg/day.

S. No	Description	Occupancy/ Area	kg/capita/day	Total Solid Waste Generation (kg/day)	Recyclable (kg/day)	Non-Recyclable(kg/day)
i)	Residents	1157	0.5	579	463	116
ii)	Staff	58	0.25	15	12	3
iii)	Visitors	116	0.15	17	14	3
iv)	Landscape waste	0.22 acres	0.2 kg/acres	1	-	1
v)	Domestic Municipal waste generated			612	290	72
vi)	STP sludge	200 KLD	--	14	6	2
Total Waste Generated				626	296	74

16. **Project cost:** Total estimated cost of the project is INR 91.44 Crores. Environment management cost will include 42.1 lakhs (Capital) and 14.5 akhs (recurring) during operation phase.

17. **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.

Considering the information furnished and the presentation made by the consultant, **M/s P and M Solution., Noida (Uttar Pradesh)** along with the project proponent, the SEAC recommended the followings;

- i) **The proponent may be asked to submit the following for further processing of EC application.**
 - a) NOC/ permission from Water Resources Dept., Govt. of Odisha for discharge of treated water to nearby nallah.
 - b) Revised water balance.
 - c) Proposed green belt area is 10% of total built up area. Proposal to increase the peripheral greenbelt area minimum to 20% of total plot area as per norms.
 - d) Detailed break-up of solar power to be generated, consumed, including capacity of PV cell capacity, connected devices and the percentage of solar energy added total power demand.
 - e) Copy of structural stability certificate from appropriate authority.
 - f) Certificate from the concerned DFO regarding distance of proposed project from Chandaka Dampara Wildlife Sanctuary or any other nearby Sanctuary.

- g) Copy of CDA building plan approval letter.
- ii) **The proposed site shall be visited by Sub-Committee of SEAC to verify the followings;**
- Environmental settings of the project site.
 - Construction activity, if any started at the site.
 - Road connectivity to the project site.
 - Drainage network at the site.
 - Discharge point for discharge of treated water and distance of the discharge point from the project site.
 - Any other local issues.

ITEM NO. 02

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

- 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.
- 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.
- 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.
- 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
10.	No. of Dwelling Units	152

5. **Water requirement:** 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

6. **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.
7. **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.
8. **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.
9. **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.
10. **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

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

11. **Greenbelt:** 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.

12. **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.

13. **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.

Considering the information furnished and the presentation made by the consultant, **M/s P and M Solution., Noida, Uttar Pradesh** along with the project proponent, the SEAC 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.
 - 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.

ITEM NO. 03

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR PROPOSED EXPANSION OF RESIDENTIAL COMPLEX “MANI TRIBHUVAN” (FORMERLY KNOWN AS “MANI TIRUMALA”) OVER A BUILT-UP AREA 76050.80SQM AT MOUZA: KALARAHANGA, P.S: CHANDRASEKHARPUR, NANDAN KANAN ROAD, DIST. KHURDA OF SRI PRITHIWIRAJ MUKHERJEE – EC

1. This proposal is for environmental clearance for proposed expansion of residential complex “Mani Tribhuvan” (Formerly Known as “Mani Tirumala”) over built-up area of 76050.80 sqm at Mouza: Kalarahanga, P.S: Chandrasekharapur, Nandan Kanan Road, Dist. Khurda of Sri Prithiwiraj Mukherjee.
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. **Project details:** Mani Tirumala Projects Pvt. Ltd., the project proponent has completed the construction of the residential complex “MANI TRIBHUBAN” (Formerly known as “MANI TIRUMALA”) at Plot Nos. 13,15,21 to 31, 33, 36, 37,38,28/2573, 40 to 49, 58, 59 & 125 (Part), Mouza- Kalarahanga, P.S.- Infocity, Nandan Kannan Road, District- Khurda, Odisha. The Project Proponent under the Existing part of the project has constructed 11 Blocks of buildings of G+14 configuration comprising of 603 dwelling units. 22 additional flats have been constructed in the existing 11 Towers. Out of these 22 flats, 16 (sixteen) flats have been built by rearranging the ground floor and 6(six) flats are constructed as upper floors in the 11 existing towers. The current configurations of dwelling units stand at 625 nos.
4. Additionally, as a part of earlier proposal, minor civil constructions of few blocks of G+5 & G+6 configurations have been carried out up to different stages. The proposal had been later

dropped and the proponent has decided that these structures will be all demolished. This matter has been already recorded and documented in Page 53 of 68 of the Proceedings of the SEAC meeting held on 19.03.2021.

5. Terms of Reference (TOR) has been granted by SEIAA, Odisha vide letter no. 3345/SEIAA, dated 12.10.2021 under Violation Category.
6. Existing Environment Clearance was granted by SEIAA vide letter no. SEIAA/200/ENV dated 02.04.2011.
7. BDA has approved the building plan vide letter no. 3537/BDA/Bhubaneswar, dated 13.02.2017.
8. **Location and Connectivity:** The proposed site is located at Kalarahanga, Bhubaneswar, Odisha. The geographical co-ordinate of the project site is Latitude - 20°22'9.08"N & Longitude - 85°50'3.35"E. The project site is well connected with Nandan Kanan road which take towards National Highway-16 (Kolkata-Chennai Road). Nandan Kanan road is 0.1 Km from proposed site. The nearest railway station is Mancheswar Railway station at a distance of approx 5.0 Km in South direction. The nearest airport is Biju Patnaik Airport at a distance of approx. 13.0 Km in South direction from project site. The site is easily accessible from Nandan Kanan Road.
9. **Comparative Land details:** The total plot area of the existing & proposed project will be 41,075.20 sqm and built up area of existing project is 76,050.80 sqm & built up area of proposed project (22 Flats) is 1906.66 sqm, so total built up area of the existing & proposed project is 77957,46 sqm.

Table: Comparative statement

Sl. No.	Features	Phase-1 As Per Environmental Clearance Vide Ref. No. SEIAA/200/Env Dated 02.04.2011	Additional Construction 22 Flats In 11 Towers	Current Scenario
i)	Land Area	41075.20 SQM	0.00 SQM	41075.20 SQM
ii)	Configuration	11 blocks of G+14 storied comprising of 603 flats with a Club house	22 Flats have been added in the existing 11 blocks. Out of these 22 Flats, 16 No. Flats have been built by rearranging the ground floors and 6 No. Flats are constructed as upper floor(s) in the 11 existing towers	11 Blocks of G+14 storied comprising of 625 Flats with a Club House
iii)	No. of flats	603 Nos	22 Nos	625 Nos
iv)	Built-up area	76050.80 SQM	1906.66 SQM	77957.46 SQM
v)	Population	3317 persons permanent residents,	110 persons	3427 persons permanent

Sl. No.	Features	Phase-1 As Per Environmental Clearance Vide Ref. No. SEIAA/200/Env Dated 02.04.2011	Additional Construction 22 Flats In 11 Towers	Current Scenario
		302 persons for Club		resident 302 persons for Club
vi)	Total water requirement	566.7 KLD	16.40 KLD	583.1 KLD
vii)	Wastewater generation	428.2 KLD	13.30 KLD	441.5 KLD
viii)	Treated wastewater from STP	415.3 KLD	12.97 KLD	428.27 KLD
ix)	Treated wastewater recycled	259.8 KLD	6.11 KLD	265.91 KLD
x)	Treated wastewater discharged	168.9 KLD	6.86 KLD	175.76 KLD
xi)	STP capacity	450 KLD (350KLD +100KLD)	Wastewater will be treated in the existing STPs	450 KLD (350KLD +100KLD)
xii)	Solid Waste generation	1.50 TPD	0.058 TPD	1.558 TPD
xiii)	Total Power Requirement	3938.00 KW	130.00 KW	4068.00 KW
xiv)	DG sets	4 x 250 KVA, 2 X 380 KVA	Current configuration of DGs provided will suffice additional back-up power requirement	2 X 320 KVA 1 X 125 KVA(Not installed as there is no occupancy)
xv)	Rainwater Recharge pits	06 Nos	No Change	06 Nos
xvi)	No. of Car Parking	653 Nos	22 Nos	675 Nos
xvii)	Green Area	5596.00 SQM	0.00 SQM	5596.00 SQM

10. Water requirement: Total water demand for the proposed expansion part of the residential complex project during operation stage will be around 16.40 KLD. Daily freshwater requirement to the tune of 10.29 KLD will be sourced from Ground Water Supply System. Relevant permission from the respective authorities has already been obtained. In addition,

treated wastewater to the tune of 6.11 KLD will be utilized in non-critical purposes like toilet flushing, landscaping, car washing, etc.

Sl. No	Category	Population	Per capital Water demand (LPCD)	Water demand (KLD)			Type of water	
				Domestic (KLD)	Flushing (KLD)	Total (KLD)	Fresh (KLD)	Treated (KLD)
i)	Residential Population	110	135	9.90	4.95	14.85	9.90	4.95
ii)	Floating Population	11	15	0.06	0.11	0.17	0.06	0.11
iii)	O & M Population	11	45	0.33	0.17	0.50	0.33	0.17
iv)	Car wash (nos.)	22	-	-	-	0.88	-	0.88
TOTAL				10.29	5.23	16.40	10.29	6.11
TOTAL WATER REQUIREMENT: 16.40 KLD								

11. **Wastewater Treatment:** It is expected that the project generates approx. 428.2 m³/day of wastewater. Wastewater generated in additional 22 nos. of flats is 13.3 KLD which is treated in existing STP of capacity 330 KLD & 100 KLD. STPs is based on SBR (Sequential Batch Reactor) Technology have been set up for the existing configuration of the 11 Towers.

12. **Solid Waste Generation and Its Management:** From the residential complex, solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.4 kg/capita/day, which will be about 110 x 0.40 = 44.0 kg/day. The generated solid waste from the residential complex will be segregated as biodegradable and non-biodegradable. This will be collected in separate-colored bins. Proper waste management practices will be adopted during the collection, storing and disposal of the generated solid waste. Waste generated from Floating people will be @ 0.15 kg/capita/day, which will be about 3.3 kg/day. Waste generated from Street Sweeping will be 11.0 kg/day.

Sl. No.	Category	Population	Rate (in kg/day)	Total (in kg/day)
i)	Residential Population	110	0.4	44
ii)	Floating Population	11	0.15	1.65
iii)	O&M Population	11	0.15	1.65
iv)	Street Sweeping	110	0.1	11
Total - 58.30 kg/day				

13. **Rainwater harvesting:** Rainwater harvesting has been catered to and designed as per the guideline of CGWA. Peak hourly rainfall has been considered as 85 mm/hr. The recharge pit of 3.0 m length, 3.0 m breath and 2.5 m depth is constructed for recharging the water. At the bottom of the recharge well, a filter media is provided to avoid choking of the recharge bore. Total no. of rainwater harvesting pits provided will be 06 Nos.

14. Power requirement: The total consolidated electrical load estimate for project is about 4068 KW. Power will be supplied by 11 KV source of TPCODL. Also, in case of power cut, 100 % power backup generator will be provided for common uses only. For this purpose, diesel generator having 200 KVA 2 X 320 KVA, 1 X 125 KVA capacities will be provided. There are 10 kw of Solar Panel is installed at site.

15. Greenbelt: Green belt is developed over an area of 5596 sqm; by using the local species like Radhachuda, Nageswar, Akash Neem, Ashok, Polanga, Karang, Bela, Pijilu, Kaniara, Tagar, Hena, etc.

16. The cost assessment related to environmental degradation and its remediation would be: Rs.28,20,891.00.

17. Total Budgetary Allocation as per the table:

Sr. No.	Description	Estimated Cost (Rs.)
i)	Estimated cost of damage / remediation with respect to ecological aspects	28,20,891
ii)	Community resource augmentation plan	50,000
Net Expenditure:		28,70,891

New Ambulance has been provided to Sri Sri University, Odisha of cost Rs. 3,49,585.00.

18. The project have applied for grant of EC under the Violation Window on 12th Sept 2017, hence the project doesn't fall under the Penalty Provisions as per Notification F. No. 22-21/2020-IA.III, dated 07.07.2021. Hence the project proponent has requested for waived off towards penalty provision clause.

19. Project cost: Estimated Project cost is around Rs. 80 Crores and environment management cost is Rs 3.6 Crores.

20. Environment Consultant: The Environment consultant **M/s. Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar**, along with the proponent made a presentation on the proposal before the Committee.

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

- i) **The proponent may be asked to submit the following for further processing of EC application.**
 - a) Undertaking by PP to carryout demolition of minor civil constructions of few blocks of G+5 & G+6 configurations as per ToR conditions, within a stipulated time frame and submit detail time scheduled for demolition.
 - b) NOC/permission from concerned authority for discharge of additional quantity of treated water to nearest drain.
 - c) Details of solar power generation along with calculation. Revised EMP budget incorporating cost of solar installation.

- d) Provide photographs of rainwater harvesting structures. Provide the location of rain water harvesting structures along with photographs.
 - e) Certified compliance report to earlier EC conditions from MoEF & CC, Govt. of India.
- ii) **The proposed site shall be visited by Sub-Committee of SEAC to verify the followings;**
- a) Construction activity, if any started for the project at the site.
 - b) Progress of the demolition work as recommended in ToRs.
 - c) Any other issues.

ITEM NO. 04

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR KUSUMI STONE QUARRY OVER AN AREA OF 5.668 ACERS OR 2.294 HECTARES BEARING KHATA NO. 325, PLOT NO. 147/P IN THE VILLAGE KUSUMI, TAHASIL KUKUDAKHANDI IN DISTRICT GANJAM, STATE ODISHA (SUBMITTED UNDER CLUSTER APPROACH WITH TOTAL CLUSTER AREA 11.139 HECTARES WITH CONSISTING OF 5 STONE QUARRIES) OF SRI SURYA NARAYAN SWAR - EC

The project proponent did not attend the meeting. The SEAC decided to defer the proposal to next meeting.

ITEM NO. 05

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR JAKARA DECORATIVE STONE QUARRY PROJECT OVER AN AREA OF 22.675 HA OR 56.03 ACRES LOCATED AT VILLAGE- JAKARA, TAHASIL- RAYAGADA, DIST- GAJAPATI, ODISHA OF SRI M JAGDISWAR RAO - EC

1. This proposal is for environmental clearance of Jakara decorative stone quarry project over an area of 22.675 ha. or 56.03 acre located at Village- Jakara, Tahasil- Rayagada, Dist- Gajapati, Odisha of Sri M Jagdiswar Rao.
2. **Category:** As per the EIA notification 2006 and its subsequent amendment, proposed project falls under category B of schedule- 1(a) Mining of minerals.
3. Prospecting License was granted vide proceedings no. MII(d)-132/07- 5690/DM, dated 08.07.2015. and Letter of Intent (LOI) was granted vide letter no.7610/SM, Bhubaneswar, dated 04.10.2019.
4. Modified Checklist of Minor Minerals is approved by Mining Officer on 06.12.2021 and Survey Report on Minor Minerals is submitted by Mining Officer to Collector, Gajapati vide letter no. 991/Mines, dated 17.11.2021.
5. District Survey Report on minor minerals submitted by Mining Officer to Collector, Gajapati vide letter no. 991/Mines, dated 17.11.2021
6. Mining Plan was approved by Directorate of Mines vide letter no. MXXII- (a)-3/2020-7826/DM., Dated. 09.11.2020.
7. As per the record of revenue the precise area applied for Decorative stone comes under Abada Ajogya Anabadi category and is of Parbat KISSAM. There is no forest land involved in the mine lease area.

8. **Terms of Reference:** Terms of Reference (TOR) has been prescribed by SEIAA vide letter no. 4222/SEIAA on dated 15.03.2022.
9. **Public hearing details:** Public hearing was conducted on 12.09.2022 at Gram Panchayat Office, Kerandi under Rayagada Panchayat Samiti in Gajapati district. The major issues raised during the public hearing are dust suppression measures, protection of environment, peripheral development of the village, road maintenance & development, plantation, employment, provision of ambulance facility, skill development training to local youth, insurance benefit to workers. As per the demands, the project proponent has committed to provide ambulance, insurance benefit to workers, skill development training to local youth, road maintenance & development, protect environment, etc. Rs 13 lakhs will be spent under CER for various socio-economic activities, in 4 years' time.
10. **Location:** Jakara Decorative Stone Deposit of M/s Tejeswini Granites, over an area of 56.03 Acres or 22.675 Hectares is located in village Jakara under Rayagada Tahasil of Gajapati District in Odisha. The proposed lease area is bounded by latitude N18° 51' 49.5" – N18° 52' 09.4" and longitude E84° 20' 00.0" – E84° 22' 25.5" & it is a part of the area covered in the Survey of India Toposheet No E45G5. Lease area comes under Abada Ajogya Anabadi category and of Parbat Kissam.
11. **Topography:** The lease area of Jakara Decorative Stone Deposit comes under a hill range. The maximum altitude is 190 mRL and the lowest altitude is 165 mRL. The overall slope of the hill is towards SE to NW side of the area. There is no forest land within the lease area. No ecologically sensitive area such as National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. is found in the core and buffer zone of the proposed study area.
12. **Drainage:** There is neither any seasonal nor any perennial nala flowing within the lease area. The drainage pattern of the area is dendritic. Surface run-off water of the area is drained through the natural slopes/ nearby Nala. There is no river / major nala within the 10 km radius study area. There are some reservoir, ponds and seasonal nala located within the study area. A seasonal nala is flowing near Gopalsahi at 1.47 Km in NE direction.
13. This is a fresh mining project and decorative stone will be produced @ 7000 CuM / Annum.
14. **Land use:** The study area covers around 31415ha., mainly comprises of forest (62.7 %), agriculture land (19.01%) and water bodies (0.02%). The balance 18.27 % of the total area covers residential area, mining, rocky and waste land etc.

Table: Land use

Sl. No	Pattern of Utilization	Area put on use at the start of the Plan period	Area required during the Plan Period	Net considered area for calculation
		(Area in Hectares)		
i)	Mining Including Haul Road	0.00053	1.886	1.886
ii)	Over Burden /Waste Dump	-	1.207	1.207

iii)	Mineral storage	-	0.04	0.04
iv)	Infrastructure (workshop, administrative, Building, etc.)	-	0.018	0.018
v)	Roads	0.01	0.05	0.06
vi)	Railways	-	-	-
vii)	Safety Zone/Greenbelt	-	1.458	1.458
viii)	Sub-Total	0.0105	4.659	4.669
ix)	Area Un-disturbed	22.664	18.016	18.006
Grand Total:		22.675	22.675	22.675

15. **Reserves and life of mine:** Total geological & mineable reserve are estimated as 26,69,186.20 m³ and 1854311 m³, respectively. The life of the mine will be about 260 years.

16. **Mining method and annual production:** Opencast semi-mechanized method will be adopted using machineries such as excavator, line offset, compressor, jack-hammer, wire ropes and drill rod etc in single shift involving drilling and cutting without blasting. Ultimate pit slope at the time of closure of mine will be around 45⁰.

Year	Volume of Rock Zone	Volume of Recoverable Decorative Stone	Volume of Khanda	Volume of waste
	(m ³)	(m ³)	(m ³)	(m ³)
1 st Year	35000.00	7000.00	3500.00	24500.00
2 nd Year	35000.00	7000.00	3500.00	24500.00
3 rd Year	35000.00	7000.00	3500.00	24500.00
4 th Year	35000.00	7000.00	3500.00	24500.00
5 th Year	35000.00	7000.00	3500.00	24500.00
Total	175000.00	35000.00	17500.00	122500.00

17. **Waste generation:** A total of 1,22,500 m³ of waste to be generated during plan period. The generated waste will be dumped with an average height of 5 m having five terraces. About 40% of the generated waste will be utilized for maintenance and construction of the haul road, approach and existing roads in the surrounding areas periodically. The waste generated during the conceptual period will be back filled over an area of 4.669 hectares up-to 168m RL. The wastes are proposed to be stacked maintaining the overall slope at less than 28⁰ and to be sequentially graded, compacted and levelled. Retaining wall of 153 metre and garland drain of 160 metre will be erected around the dumping yard to arrest the washing off loose sediments.

18. **Water requirement:** About 1.1 KLD of water will be utilized for drinking, dust suppression and plantation purposes. This water will be met from nearby villages.

19. No mines water will be discharged into any seasonal /perennial nala near the leasehold.153m long retaining walls will be built all around the waste dumps, which will have weep holes for passage of storm water to join garland drains.160m long Garland drains shall be constructed as much as possible around waste dump (depending on contours) and it will be connected to 12m X 12m X 2m size settling pond. Sanitary sewage generated in office area shall be treated in septic tank & soak pit. Silt generated from cutting faces shall be collected in 10m X 12m X 1m size settling pond & supplied to brick makers, cement industries, etc.

20. **Power requirement:** No electrical power shall be required for operations in mine. 225 KVA DG set will be used for office and lighting purpose.

21. **Baseline study:** Study period is summer season (December 2021 to February 2022)-

i. Ambient air quality

LOCATION	Station Code	PM10 ($\mu\text{g}/\text{m}^3$)				PM2.5 ($\mu\text{g}/\text{m}^3$)				SO2 ($\mu\text{g}/\text{m}^3$)			
		Max.	Min.	Avg.	98 Percentile	Max	Min	Avg	98 Percentile	Max.	Min.	Avg.	98 Perce ntile
Project Site	A1	62	36	49.58	61.00	36	18	25.58	35.00	7.6	4.6	6.03	7.45
Sana Jolara	A2	68	43	57.35	68.00	34	20	25.46	33.00	8.2	5.1	6.12	8.20
Angarasingi	A3	65	34	52.88	64.50	35	19	25.85	34.00	7.5	4.4	6.24	7.40
Bandikara	A4	60	35	48.42	60.00	36	16	24.69	34.00	7.6	4.1	5.88	7.50
Lingapur	A5	58	34	47.80	57.52	33	14	24.80	32.52	7.2	4.8	5.85	7.20
Rentikota	A6	56	32	46.72	55.04	34	11	23.16	32.56	7.2	4.3	5.76	7.01
Jakara	A7	52	36	44.32	51.52	28	12	20.88	27.52	6.7	4.2	5.36	6.56
Killoyi Colony	A8	57	35	46.32	56.04	35	13	24.72	33.56	7.3	4.5	5.82	7.06
CPCB Standard		100($\mu\text{g}/\text{m}^3$)				60($\mu\text{g}/\text{m}^3$)				80($\mu\text{g}/\text{m}^3$)			

LOCATION	Station Code	NOX ($\mu\text{g}/\text{m}^3$)				CO (mg/m^3)			
		Max.	Min	Avg	98 Percentile	Max.	Min.	Avg.	98 Percentile
Project Site	A1	13.4	9.5	11.44	13.30	BDL	BDL	BDL	BDL
Sana Jolara	A2	13.6	9.6	11.30	13.55	BDL	BDL	BDL	BDL
Angarasingi	A3	13.6	9.2	11.37	13.40	BDL	BDL	BDL	BDL
Bandikara	A4	13.2	9.1	11.01	13.05	BDL	BDL	BDL	BDL
Lingapur	A5	13.7	9.4	11.38	13.51	BDL	BDL	BDL	BDL
Rentikota	A6	13.8	9.5	11.44	13.66	BDL	BDL	BDL	BDL

Jakara	A7	12.6	9.5	10.82	12.50	BDL	BDL	BDL	BDL
Killoyi Colony	A8	13.1	9.6	11.46	13.00	BDL	BDL	BDL	BDL
CPCB Standard		80($\mu\text{g}/\text{m}^3$)				4(mg/m^3)			

ii. Noise level

Station name	Station code	Results { dB(A) Leq}					
		Day (0600-2200hr)			Night (2200-0600hr)		
		Max.	Min.	Avg*	Max.	Min.	Avg*
Project Site	N1	48.7	31.7	42.9	33.6	BDL	30.9
Sana Jolara	N2	52.6	32.6	45.7	35.5	BDL	31.5
Angarasingi	N3	49.1	30.8	42.7	33.4	BDL	30.8
Bandikara	N4	53.8	33.5	46.6	35.9	BDL	31.8
Lingapur	N5	48.2	32.1	43.0	33.7	BDL	31.0
Rentikota	N6	51.9	31.9	45.2	34.8	BDL	31.5
Jakara	N7	51.2	31.2	44.1	31.9	BDL	30.3
Killoyi Colony	N8	49.1	30.6	43.2	33.2	BDL	30.7

Note: *Logarithmic Average BDL of Noise Level Meter is 30 dB(A).

iii. Soil quality

Sl. No.	Parameters	LOCATIONS				
		S1	S2	S3	S4	S5
1	Colour	Brown	Brown	Brown	Brown	Brown
2	Soil Texture	Loam	Loam	Loam	Loam	Loam
3	pH value	6.8	7.1	7.3	7.5	6.6
4	Bulk Density (g/cm^3)	1.28	1.32	1.16	1.06	1.09
5	Available Phosphorus kg/ha	8.8	7.4	10.2	12.1	8.8
6	Available Potassium kg/ha	216	172	244	196	168
7	Available Organic Carbon (%)	0.24	0.48	0.52	0.58	0.36
8	Available Nitrogen (%)	203	212	248	198	177

iv. Surface water quality

Parameters	Unit	SW1	SW2	SW3	SW4	SW5	SW6
Color,	Hazen	<5	<5	<5	<5	<5	<5

Odour	Unobjectionable	U/O	U/O	U/O	U/O	U/O	U/O
Suspended Solids	mg/l	38	26	31	40	35	33
Turbidity	NTU	12	09	10	14	11	12
pH value	----	7.32	7.22	7.28	7.56	7.44	7.36
Temperature	0c	9	12	10	8	11	9
Oil & Grease	mg/l	<5	<5	<5	<5	<5	<5
Ammonical nitrogen(as N)	mg/l	1.12	1.48	1.04	1.22	1.18	1.26
Total Kj. Nitrogen(as NH ₃)	mg/l	1.1	2.1	0.7	1.6	1.3	1.7
Total Hardness (as CaCO ₃)	mg/l	54	50	44	48	56	52
Iron (as Fe)	mg/l	0.28	0.26	0.22	0.24	0.32	0.30
Chloride (as Cl)	mg/l	29.8	27.6	24.2	22.8	30.4	25.2
Fluoride (as F)	mg/l	0.14	0.20	0.12	0.18	0.12	0.16
Total Dissolved Solids	mg/l	90	84	78	72	80	82
Calcium (as Ca)	mg/l	15.2	13.4	14.2	12.6	16.2	11.4
Magnesium (as Mg)	mg/l	4.8	3.6	3.1	2.8	4.4	3.6
Copper(as Cu)	mg/l	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Nickel (as Ni)	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Manganese (as Mn)	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Sulfate (as SO ₄)	mg/l	12.8	14.2	14.8	12.4	16.2	11.8
Nitrate (as NO ₃)	mg/l	1.6	1.1	2.1	1.2	1.6	1.4
Sulfide (as S)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

v. Ground water quality-

Sl. No.	Test parameters	Unit	Norms as per IS: 10500-2012		GW1	GW2	GW3	GW4
			Acceptable Limit	Permissible Limit				
1	Colour	Hazen	5	15	<5	<5	<5	<5
2	Odour	\$	Agreeable	Agreeable	Agr.	Agr.	Agr.	Agr.
3	Taste	\$	Agreeable	Agreeable	Agr.	Agr.	Agr.	Agr.

Sl. No.	Test parameters	Unit	Norms as per IS: 10500-2012		GW1	GW2	GW3	GW4
			Acceptable Limit	Permissible Limit				
4	Turbidity	NTU	1	5	<1	<1	<1	<1
5	pH Value @ 25°C	\$	6.5-8.5	No Relaxation	7.22	7.12	7.08	7.16
6	Total Hardness (as CaCO ₃)	mg/l	200	600	177	182	202	212
7	Iron (as Fe)	mg/l	0.3	No Relaxation	0.28	0.24	0.22	0.18
8	Chloride (as Cl)	mg/l	250	1000	32	40	44	38
9	Total Dissolved Solids	mg/l	500	2000	292	302	335	356
10	Calcium (as Ca)	mg/l	75	200	36	62	54	68
11	Magnesium (as Mg)	mg/l	30	100	16	22	14	18
12	Copper (as Cu)	mg/l	0.05	1.5	ND	ND	ND	ND
13	Manganese (as Mn)	mg/l	0.1	0.3	ND	ND	ND	ND
14	Sulphate (as SO ₄)	mg/l	200	400	24	42	30	46
15	Nitrate (as NO ₃)	mg/l	45	No Relaxation	ND	ND	ND	ND

22. **Greenbelt:** Green belt will be developed in the safety zone. In the plan period, 0.1386 ha. will be planted with 510 nos. of saplings. Besides these, roadside plantation will be done with adequate number of saplings.
23. **Manpower:** A total of 30 nos. of persons (managerial & supervisory personnel – 03, Skilled- 14, Semi-skilled- 06 & Unskilled- 07) will be engaged in the mines
24. **Project cost:** The estimated cost of the project is Rs.3 Crore. The cost earmarked for environmental control measures is 90,0000/- per annum.
25. **Environment Consultant:** The Environment consultant **M/s Centre for Envotech and Management Consultancy Pvt. Ltd, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee.

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

- Copy of lease sanctioned order.
- Detailed layout map showing garland drain, settling pond, mining area.
- Copy of permission from DFO for tree cutting.
- List of villages of Andhra Pradesh to be affected as it is nearer to inter-state boundary.

ITEM NO. 06

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF BAITARANI SAND BED MINE ON BAITARANI RIVER OVER AN AREA OF 5.058 HA/12.50 ACRE IN VILLAGE TAMPO, UNDER GHASIPURA TAHASIL OF KEONJHAR DISTRICT OF SRI HRUSHIKESH JENA – EC

- This proposal is for environmental clearance of Baitarani sand bed mine on Baitarani River over an area of 5.058 ha./12.50 Acre in village Tampo, under Ghasipura Tahasil of Keonjhar District of Sri Hrushikesh Jena.

2. **Category:** As per EIA notification 2016 and subsequent amendment this proposal is coming under Category B of Schedule 1(a)-Mining of Minerals.
3. The quarry lease has been granted by the Tahasildar, Ghasipura vide letter no.676 on dated 17.03.2020 to the applicant (successful bidder) for excavation of minor mineral (River Sand) for five years.
4. The Tahasildar of Ghasipura Tahasil vide letter no. 5740 issued on dated 28.12.2020 while submitting relevant documents of EC application to SEIAA, Odisha further communicated that Sri Hrushikesh Jena of Jena Minerals Pvt. Ltd., Saroi, Haridaspur of Jajpur Dist. is the successful bidder of the said sairat source.
5. The mining plan has been approved by the Deputy Director of Geology, Cuttack, Odisha vide memo no. 676 on dated 17.03.2020.
6. **Terms of Reference (TOR) details:** Terms of Reference (TOR) was issued by Ministry of Environment, Forest and Climate change vide file no: 59407/55-MINB1/12-2020 on dated 28.02.2021.
7. **Public hearing Details:** The Public Hearing in respect of Environment Impact Assessment for Baitarani Sand Bed Mine of M/s Jena Minerals Pvt. Ltd. on river Baitarani over an area of 5.058 ha. in village Tampo under the Ghasipur Tahasil of Keonjhar District, Odisha was conducted on 12.05.2022 at 11.00 A.M at Village Tampo (Near Tampo Baitarani Bridge) (Khata No.218 (Rakhita), Plot No.556, Kissam-Gochara, Area-Ac.32.15) in Keonjhar District. Issues raised are local employment, dust pollution, water sprinkling arrangements, tarpaulin cover on sand loaded vehicles, plantations, increase of traffic management & road transportation. Total expenses to be incurred for public hearing action plan is 6.60 lakhs.
8. **Location and connectivity:** The proposed river bed sand mining will be carried out on Baitarani River located at village: Tampo, under Tahasil: Ghasipura, DistKeonjhar, Odisha & the lease area is 5.058 ha. or 12.50 acre bearing Khata No.-221, Plot No.705, 706, Kisam: Nadi. The project is located in survey of India toposheet no. E45O4 & E45O8 between latitude of 21° 07'52.44"N to 21° 08'11.57"N and longitudes of 86° 10'56.05"E to 86° 11'21.81"E. The site is well connected to NH-215& SH-53 at a distance of 6.9 Km & 7 Km. Nearest airport is Bhubaneswar airport at a distance of 105 Km from the mining lease area. Nearest Railway station is Korai Railway Station at a distance of 16 Km from the project site. The nearest road is Batto road located at a distance of 0.6 Km.
9. **Topography:** The Baitarani sand bed deposit represents a gently sloping to almost flat terrain with the highest elevation is 29.5mRL & lowest elevation is 27 mRL in sand. The lease area belongs to recent quaternary riverbed deposits consisting of sand, silt, clay, gravel and alluvial deposits. The sand in the lease area is a weathering product of the nearby metamorphic rocks and has been transported by 1st and 2nd order nala which ultimately gets deposited in the main nala/river bed during the rainy season.
10. **Drainage:** The drainage of the district is mainly controlled by rivers like Baitarani, Kangira, Ardei, Khairibandhan, Kanjhari, Sita, Kusei, Salandi etc. During rainy season, the river water carries sand which is formed due to disintegration of rock bodies along with other suspensions.

11. **Reserves:** Total geological reserves and mineable reserves is 50588 Cum and 29844 Cum respectively.
12. **Mining method and production details:** In the applied bed lease area, the sand will be extracted by manual mining method. Handpicks, Spade, hand shovel will be used by manual labourers for extracting & loading of sand. The sand will be loaded into tippers/tractors having capacity 4Cu.m/2.5 Cu.m for loading & dispatched as per requirement. The extraction of sand will be carried out up to the limit of maximum 1.5m depth or the water table whichever less is. The total excavated material is sellable as no waste will be generated from the mining process. There is no provision of dumping within the quarry. Only 20 trucks and tippers will be utilized for transportation of sand. At the proposed rate of annual production, total excavated sand would be maximum of 25545Cu.m during the proposed plan period. The project intend to excavate maximum sand of 5223 Cu.m per year and total 25545 Cu.m within 5 year plan period from the lease area. During plan period the mined-out land will be 2.578 ha. The safety zone to be maintained at 7.5 metre width all along the quarry which will be 0.401 ha. and water body, which will cover 2.079 ha.

Financial Year	Minerals	Surface Area in (Sq. m)	Thickness of sand (m)	Volume of sand in (Cu. m)
1 st Year	Sand	3422	1.5	5133
2 nd Year		3430	1.5	5145
3 rd Year		3344	1.5	5016
4 th Year		3352	1.5	5028
5 th Year		3482	1.5	5223
Total				25545

13. **Water requirement:** For drinking & domestic purpose, water requirement will be 2 KLD while water requirement for green belt development and dust suppression will be 1 KLD. So total water requirement for this proposed project is 3KLD.
14. **Fuel requirement:** Tipper & Dumper will be used for transportation. The approximate quantity of the fuel/Diesel used per day is 100Lit/day.
15. **Baseline study:**

PERIOD	October to December 2020	Applicable Standards
AAQ PARAMETERS AT 7 LOCATIONS	PM _{2.5} – 16.7 to 27.2 µg/cu.m	60 µg/cu.m
	PM ₁₀ – 17.1 to 41.7 µg/cu.m	100 µg/cu.m
	SO ₂ – 5.2 to 9.9 µg/cu.m	80 µg/cu.m
	Nox – 10.3 to 22.1 µg/cu.m	80 µg/cu.m

Ground water Quality at 6 Location	pH – 6.9 to 7.3	6.5 to 8.5
	Total Hardness – 52 – 192 mg/l	600 mg/l
	Chloride - 9.6 to 124.6 mg/l	250 mg/l
	Fluorides – 0 .15 to 0.81 mg/l	1.5 mg/l
	TDS – 110 - 470 mg/l	1000 mg/l
	Heavy metals (Cd < 0.001, As < 0.001, Hg < 0.0005) mg/l	Heavy metals (Cd <0.003, As <0.01, Hg<0.001) mg/l
Surface water at 4 locations	pH – 7.1 to 7.8	
	Dissolved Oxygen – 5.5 to 6.0 mg/l	
	Biochemical Oxygen Demand – 2 to 5 mg/l	
	Chemical Oxygen demand – 12 to 25 mg/l	
Noise at 8 locations	Day (dBA Leq) 32.4 to 45.6	55
	Night (dBA Leq) - 25.6 to 35.6	45
Soil Quality at 3 locations	pH – 5.20 to 7.4, Potassium – 202.9 to 1828 Kg/ Ha, Phosphorous – 166 to 603 Kg/ Ha, Nitrogen – 188 – 276 Kg/Ha, Electrical Conductivity- 117 to 1050 ms/Cm	

16. **Greenbelt:** There is proposal for plantation along the riverbank to protect the riverbank erosion in consultation with the forest department. Approximately 250 saplings is proposed to be planted during the 1st year of mining operation.
17. **Employment generation:** Due to the proposed sand mining, there will be generation of employment for 14 persons out of which, 04 skilled, 04 Semiskilled, 6 nos are unskilled.
18. **Project Cost:** Total cost of the proposed project is 10lakhs. The EMP cost proposed for the project will be 4.0 Lakh per annum.
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.

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 decided to take decision on the proposal after receipt of the following from the proponent:

- a) NOC/permission from concerned authority for usage and maintenance of Panchayat Road.
- b) Precautionary measures to be taken for movement of vehicles in school area for safety of students.
- c) Distance from bridge and other sand mines.
- d) Conduct replenishment study in pre monsoon and post monsoon and submit the report.

ITEM NO. 07

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR PROPOSED CONSTRUCTION OF NEW HOSTEL BLOCK BUILDING OF XIM UNIVERSITY BHUBANESWAR OVER A BUILT-UP AREA OF 1,70,773 SQM AT: MOUZA- NIJIGADA KURKI, HARIRAJPUR, DISTPURI OF M/S. XIM UNIVERSITY BHUBANESWAR – TOR

1. The proposal was considered by the committee to determine the “Terms of Reference (ToR)” for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.
2. This proposal is for Terms of References (TORs) for obtaining environmental clearance of proposed construction of new hostel block building of XIM University Bhubaneswar over built-up area of 1,70,773 sqm At Mouza- Nijigada Kurki, Harirajpur, Dist- Puri of M/s. XIM University Bhubaneswar.
3. **Category:** As per EIA notification,2006 and its subsequent amendments, this project falls under category B of schedule 8(b)- Townships and Area Development projects.
4. **Project details:** Earlier, they had applied for environment clearance to SEIAA on 15.09.2014 for 1,44,160.0 sqm built up area and the SEAC presentation was held on 29.11.2014. But as per the Gazette of India, Notification dt. 22nd December 2014; educational Institutes having less than 1,50,000 sq. mtrs. of buildup area are exempted from obtaining Environmental Clearance. So, the project is exempted from obtaining Environment Clearance. Now, they have planned to increase the built-up area from 1,44,160.0 sqm to 1,70,773 sqm due to construction of a new hostel block. Hence, they are applying herewith for the Terms of References (ToRs) to go for Environment Clearance.
5. BDA has approved the building plan for existing project vide letter no. 15450/BDA, Bhubaneswar, dated 30.04.2022.
6. NOC from IDCO for Water Supply has been permitted vide letter no. IDCO/BCD-II/900, dated 18.07.2012.
7. **Location and connectivity:** The campus is located in the Village- Kurki, Mouza- Nijigarh under Pipli Block, Puri District of Odisha. The geographical coordinates of the project site is bounded by Latitude - 20^o 09' 22.18" N & Longitude - 85^o 45' 59.36" E. The site falls in the Survey of India toposheet no. 73H/12 & 73H/16. The site is located about 13.8 kms away from the Baramunda Bus Stand and 11.5 kms from the Biju Patnaik International Airport, Bhubaneswar. Bhubaneswar railway station is approximately 14.7 kms from the campus. Sundarapada-Jatani Road is passing near by the project site, which is connecting to Khurda-Jatani-Pipili Road. The entire property has been planned with well-connected road network/drives/pathways.
8. **Area details:** For this project, 2,22,575.42 sqm. (55.0 Acre) of land has already been acquired. Total Built up area of the project is 1,70,773 sqm.

Table: Area details

Particular	Proposed	Permissible
Project Name	NEW HOSTEL OF XIM UNIVERSITY	
Plot Area	2,22,575.42 sqm (55 acre)	
Ground Coverage	34423 .00 sqm. (15.46%)	
Total Built up Area	1,70,773 sqm	
FAR	0.77	
Maximum Height	31.5 m	
Road & Paved Area	114229.4 sqm	
Parking Area	69,706 sqm	69344 sqm (40% of BUA)
Green Belt Area	73,923 sqm (33.2% of the plot area)	44,515 sqm (20% of the plot area)
Power/Electricity Requirement & Sources	800 KVA Source: TPCODL	
No. of DG sets	2x500 KVA, 4x250 KVA, 1x125 KVA, 1x62.5 KVA	
Fresh Water requirement & Sources	273.0 KLD Source: IDCO Supply	--
Sewage Treatment Plant	STP – 0.55 MLD	
Estimated Population- Residential, Floating	Residential – 3000 Nos. Floating – 600 Nos.	

9. **Drainage:** The study area is drained by a number of streams of different order. The drainage is mainly defined by the Gidighai Nala. They all act as distributaries of Daya River which flows in the extreme South direction of the buffer zone. The drainage in project area shows a radial and dendritic pattern and is mostly the result of topography rather than structurally controlled.

10. **Land breakup:**

Particular	Existing	Proposed	Total
Plot Area	1,41,169.0 sqm (35 Acre)	81,406.4 sqm (20 Acre)	2,22,575.40 sqm (55 acre)
Ground Coverage	31,389.0 sqm (14.10%)	3,034.0 sqm (1.36%)	34,423.0 sqm (15.46%)
Total Built up Area	1,44,160.0 sqm	26,613.0 sqm	1,70,773.0 sqm
FAR	0.65	0.12	0.77
Maximum Height	--	--	28 m
Road & Paved Area	--	--	114229.4 sqm
Basement Parking	1,050.0 sqm	--	1,050.0 sqm
Stilt Parking	1,538.0 sqm	--	1,538.0 sqm
Surface Parking	55,438.0 sqm	9,092.0 sqm	67,118.0 sqm

Total Parking Area	58,026.0 sqm	9,092.0 sqm	69,706.0 sqm
Green Belt Area	29,075.0 sqm	44,848.0 sqm	73,923 sqm (33.2% of the plot area)
Power/Electricity Requirement & Sources	1283 KW Source: TPCODL	235.0 KW Source: TPCODL	1518.0 KW Source: TPCODL
No. of DG sets	2x500 KVA & 1x300 KVA	--	2x500 KVA & 1x300 KVA
Fresh Water requirement & Sources	192.0 KLD Source: IDCO Supply	81.0 KLD Source: IDCO Supply	273.0 KLD Source: IDCO Supply
Sewage Treatment Plant	STP – 300 KLD	STP – 250 KLD	STP – 550 KLD

11. **Water requirement:** Freshwater make up of 273.0 m³/day will be required for the project which will be sourced from IDCO supply water.
12. **Wastewater generation and Treatment:** Every building generates wastewater amounting about 80% of total water consumed. The major source of wastewater includes the grey water from kitchens, bathrooms, and black water from toilets. It is expected that project will generate approx. 353.4 m³/day of wastewater. The wastewater will be treated in the STP of capacity of 550 KLD provided within the complex.
13. **Rainwater harvesting:** Rainwater harvesting has been catered to and designed as per the guideline of CGWA. Peak hourly rainfall has been considered as 37 mm/hr. The recharge pit of size 4.0 m diameter and 2.5 m effective depth is constructed for recharging the water. At the bottom of the recharge well, a filter media is provided to avoid choking of the recharge bore. Total no. of proposed rainwater harvesting pits are 40.
14. **Power requirement:** The daily power requirement for the institutional building is preliminarily assessed as 1518.0 KW which will be sourced from TPCODL. To meet emergency power requirements during the grid failure, there is provision of DG set having 2 nos. of 500 KVA, 4 nos. of 250 KVA, 1 no. of 125 KVA & 1 no. of 62.5 KVA capacities for power back up in the institutional building project. The XIM Campus have installed 620 KV Solar Panel.
15. **Firefighting:** Firefighting system will be installed as per recommendation of the Firefighting Officer, Odisha, Bhubaneswar and as per the guideline of NBC (part-4). The firefighting system comprises of hose reel, down comer, manual operated electric fire alarm system, terrace tank, extinguisher, and terrace pump. Safe evacuation route for building residents should be cleared marked to ensure safety of residents during any emergency.
16. **Greenbelt:** The plantation matrix adopted for the green belt development includes pit of 0.3 m x 0.3 m size with a spacing of 2 m x 2 m. Multi-layered plantation comprising of medium height trees (7 m to 10 m) and shrubs (5 m height) are proposed for the green belt. Green belt will be developed over an area of 73,923 sqm (33.2 %) of the plot area by using the local species like Radhachuda, Nageswar, Akash Neem, Ashok, Polanga, Karang, Bela, Pijilu, Kaniara, Tagar, Hena, etc.
17. **Parking details:** Total Parking Area provided is 69706 sqm

Parking Area Provided			
Basement Parking			1050.0sqm
Stilt Parking			1538.0 sqm
Surface Parking			67118.0sqm
Total Parking	--	--	69706.0sqm
Equivalent Car Space Provided			
	Area(sqm)	Area/ECS	
Basement Parking	1050	32	33 ECS
Stilt Parking	1538	28	55 ECS
Surface Parking	67118	25	2685 ECS
Total Parking Provided			2773 ECS

18. **Solid waste generation:** During operation phase, from the residential complex solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.45 kg/person/day, which will be about 1350 kg/day. Around 40 kg/day of STP sludge will be generated.

Table: Solid waste Generation

S. No.	Category	Counts (heads)	Waste generated (kg/day)
1.	Residential	3000 @ 0.45 kg/day	1350.0
2.	Floating Population	600 @ 0.15 kg/day	90.0
3.	STP sludge		40.0
Total Solid Waste Generated			1480.0 kg/day

19. **Project Cost:** Estimated cost of the proposed project is 20 crores. EMP cost includes capital cost of 262 lakhs.

20. **Environment Consultant:** The Environment consultant **M/s Centre for Envotech and Management Consultancy Pvt. Ltd, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee.

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

- i) **The proponent may be asked to submit the following for further processing of TOR application.**
 - a) Built up area constructed after 14th September, 2006.
 - b) Total built up area of the existing project and proposed built up area.
 - c) Copy of all the building plan approval letters.
 - d) Justification as to why, this will not be considered as violation case.
- ii) **The proposed site shall be visited by Sub-Committee of SEAC to verify the followings;**
 - a) Construction activity, if any started for the proposed project at the site and to verify details of construction activity of existing building.

b) Any other issues.

ITEM NO. 08

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR PROPOSED 1,00,000 TPA GREEN FIELD COAL TAR DISTILLATION PLANT OF VCI CHEMICAL INDUSTRIES PVT. LTD OVER AN AREA 22.00 ACRES AT VILLAGE – JAKHAPURA & KACHHARIGAON, TEHSIL - DANAGADI, DISTRICT - JAJPUR OF SRI SHUBHAM GUPTA - TOR

1. This proposal is for Environmental Clearance of proposed 1,00,000 TPA green field Coal Tar Distillation Plant of VCI Chemical Industries Pvt. Ltd over an area 22 acre at Village – Jakhapura & Kachharigaon, Tehsil - Danagadi, District - Jajpur of Sri Shubham Gupta.
2. **Category:** As per EIA Notifications 2006, the proposed plant falls under category “B” schedule of 4 (b)– “Coal Tar Processing Units”.
3. **Project details:** This is a proposed Greenfield project for Coal Tar Distillation Plant of processing capacity 1,00,000 TPA at Village Jakhapura & Kachharigaon, Tahsil: Danagadi, District: Jajpur in Odisha. The plant will also be equipped with most efficient auxiliary sub systems, material handling facilities and pollution control equipment. The land area for the proposed plant 22 Acre has been allotted by IDCO. Also, the proposed site is in a notified industrial area.
4. Land allotted by IDCO vide letter no. IDCO:HO:P&A:LAE:8229/2021_22782 dtd. 06.09.2022.
5. No alternate sites considered as the proposed land as it comes under Kalinga Nagar Industrial notified area (Jakhapura & Kachharigaon village) vide The Odisha Gazette No. 458 Cuttack, Monday, March 03, 2014, Industrial department Notification 24th February 2014, letter no 962-XIX-HI-22/2014-I.
6. **Location and Connectivity:** The geo coordinates of the plant area are 20°55'50.10"N & 86° 2'56.32"E, 20°55'42.32"N & 86° 3'1.98"E, 20°55'37.30"N & 86° 2'53.00"E, 20°55'45.56"N & 86° 2'47.25"E. The project site is situated at Village Jakhapura & Kachharigaon, Tahsil: Danagadi, District: Jajpur in Odisha. The topography of the plant area is flat with minor undulations. The site is well connected with Industrial Corridor Road of Kalinga Nagar Industrial Complex (adjacent to Project boundary), which in turn is connected to the NH 200 (4.01 km, SW). The Jakhapura Junction (2.05 km in Southeast) connects the site to the Jamshedpur- Vishakhapatnam Railway line. The airport closest to the proposed site is the Biju Patnaik Airport (78.75 km in SW) in Bhubaneswar. Kalinganagar is located at 120 km from Paradeep port and 160 km from Dhamra port which are well connected through road and rail.
7. The project site falls in Zone – III (moderate damage risk zone) as per IS 1893 (Part-I): 2002.
8. There is no National Parks, Wildlife sanctuaries and Biosphere Reserves within 10 Km from the proposed site. However, Dangadi Protective Forest is present at 4.29 km, NNE. Brahmani River (4.63 km, South), Ganda Nala (3.43 km, East) and a Seasonal Nala (0.05 km, West).
9. **Land use:**

Table: Land use break up

Sl. No.	Description of Area	Acre (Ac.)	Hectare (Ha.)	Area Percentage (%)
i)	Security Office, Reception & Material Inward/outward Area	0.5	0.20	2
ii)	Office Building, Dormitory, Canteen & Parking	1.7	0.69	8
iii)	Weighbridge	0.1	0.04	0
iv)	Air Compressor & Nitrogen Room	0.2	0.08	1
v)	Cooling Tower	0.2	0.08	1
vi)	Fire Hydrant System, Process Water	0.2	0.08	1
vii)	Steam Boiler	0.5	0.20	2
viii)	Effluent Treatment Plant (ETP)	0.9	0.36	4
ix)	Pitch Reforming, Zero QI Warehouse	1.5	0.61	7
x)	Refined Naphthalene Warehouse	0.5	0.20	2
xi)	NSF Area	0.4	0.16	2
xii)	Coal Tar Distillation Area	1.2	0.49	5
xiii)	Intermediate Tank Farm Area	0.6	0.24	3
xiv)	Raw Material & Product Tank Farm Area	1.4	0.57	6
xv)	Light Oil Tank Farm Area	0.3	0.12	1
xvi)	Electrical Substation	0.3	0.12	1
xvii)	Store Room & Workshop	0.1	0.04	0
xviii)	Loading Area	0.4	0.16	2
xix)	Subtotal Built up Area	11	4.45	50
xx)	Scrap Yard Area	0.2	0.08	1
xxi)	Tanker Yard Area	0.6	0.24	3
xxii)	Road Area	2.1	0.85	10
xxiii)	Drain Area	0.5	0.20	2
xxiv)	Water Reservoir, Rainwater Harvesting & SRTS	0.3	0.12	1
	Subtotal Open Area	3.7	1.50	17
xxv)	Green Belt Area	7.3	2.95	33
	Subtotal Green Belt Area	7.3	2.95	33
	Total Area	22	8.90	100

10. **Water requirement:** The total water requirement for the proposed plant will be 376 KLD sourced from Department of Water Resources (IDCO Supply).

11. **STP/ETP:** The domestic wastewater will be treated in STP. A total of 12.80 KLD will be sent to the Sewage Treatment Plant of 20 KLD Capacity. Treated water will be recycled and reused. The STP will run by the MBBR technology. The Process wastewater will be treated in Effluent Treatment Plant (60 KLD).

12. **Wastewater generation:**

Table: Details of Wastewater

S.No.	Description	Wastewater generation in KLD	Remarks
i)	Process	3	The water will be treated in ETP (60 KLD) and be reused in Processing.
ii)	WTP Backwash	10	
iii)	Floor washing wastewater	11	
iv)	Boiler blow down	3	
v)	Cooling Tower blow down	29	
vi)	Domestic wastewater	12.8	The water will be treated in STP (20 KLD) and be reused for Greenbelt.
Total		68.8	

13. **Power requirement:** The power requirement for the proposed project is 2.138 MW sourced from TPCODL.

14. **Fuel requirement:** Natural gas 560 Metric Million British Thermal Unit per day (MMBTY/D) is required and will be sourced from BPCL (Bhubaneshwar) and will be transported via Pipeline.

15. **Greenbelt:** The total green belt area shall be 33% of the total area. A comprehensive greenbelt/plantation program will be undertaken in and around the project. The species selection will depend upon the crown shape, surface of bark and leaves, flower, color, the capacity of growth in the wide variations of ecological conditions etc.

16. **Rainwater harvesting:**

Particulars	Area (To be filled)		Avg. Rain fall (mm/annum)	Runoff Coefficient	Avg. Water collected (m ³ /annum)	Loss in Evaporation from Storage Tank (m ³)
	(Acres)	(Sqm)				
Roof Top of building/Shed/	6	24,276	1.56	0.85	32190	
Road/Paved area	2.2	8901.2		0.65	9014.82	
Open Land (Drain area, Tanker Yard area, Scrap Yard area)	1.8	7282.8		0.20	2269.46	

Green Belt	7.3	29131.2		0.15	6808.39	
Reservoir (Rain water Harvesting, SRTS)	0.3	1213.8		1	1891.22	2658.22 (about 5% loss)
Total	17.6	70805	-	-	52,173.89	

17. Greenbelt:

Particulars	Area (To be filled)		Avg. Rain fall (mm/annu m)	Runoff Coefficie nt	Avg. Water collected (m ³ /annu m)	Loss in Evaporati on from Storage Tank (m ³)
	(Acre s)	(Sq m)				
Roof Top of building/Sh ed/	6	24,276	1.56	0.85	32190	
Road/Paved area	2.2	8901.2		0.65	9014.82	
Open Land (Drain area, Tanker Yard area, Scrap Yard area)	1.8	7282.8		0.20	2269.46	
Green Belt	7.3	29131.2		0.15	6808.39	
Reservoir (Rain water Harvesting, SRTS)	0.3	1213.8		1	1891.22	2658.22 (about 5% loss)
Total	17.6	70805		-	-	52,173.89

18. **Manpower:** It is estimated that the manpower requirement for the proposed plant will be about 600 during the construction phase of the plant and 167 during operation phase of the plan.

19. **Project cost:** The total cost of the project is estimated to be Rs. 203.72 Crores. Total capital cost for environmental pollution control measures Rs. 14.20 Crores. Recurring cost per annum for environment pollution control measures Rs. 2.165 Crores.

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

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar**, the SEAC prescribed the following specific ToRs in addition to standard ToRs as per **Annexure – A** for conducting detailed EIA study.

- i) The project proponent shall conduct public hearing for the project.
- ii) Detailed specification of ETP to be used including confirmation of chemical analysis of treated waste water from ETP and “zero discharge” SOP.
- iii) Detailed proposal for management of Hazardous waste generated.
- iv) Land schedule along with kissam plot wise in tabular form.
- v) Chemical Analysis of Waste water and ensure zero liquid discharge from the premises. Water balance with ZLD proposal to be submitted.
- vi) Mitigation measures to be undertaken to arrest pollutants going to air including composition / chemical analysis of process loss effluents and emissions to be found out and technology driven mitigation measures to be submitted.
- vii) Occupational health study in the area including adoption of ISO 14001 and OHSAS to be submitted.
- viii) Measures to be taken to control odour problem.
- ix) To submit STP and it's capacity including the water balance (both monsoon and non-monsoon) and disposal of excess treated waste water, quantity, mechanism and SOP.
- x) To indicate details of bore well, tube well and Pond/ or water bodies physically present within 2-5 kms of the proposed project and the habitation within 5 kms.
- xi) SOP for periodical testing of the water/ tube Wells, bore well and Ponds / water bodies w.r.t Cyanide, phenolic compounds (Phenol), ammonia and health hazardous substances Etc. w.r.t BIS for drinking water suitability.
- xii) To make provision of concrete Garland drain around the boundary of the project to collect surface runoff/ storm water/ or any mix of treated waste water from ETP, collection of the same in an impervious concrete Pond with matting to arrest any leached and recycling of the same in ETP.
- xiii) To have technological provision in ETP so that have treated liquid outlet discharge having Cyanide, Phenol or ammonia contain etc. and continuous chemical analysis of the same.
- xiv) To have provision of concrete Pit of appropriate dimension with matting to put ETP sludge and SOP for suitable disposal of the same after due chemical analysis.
- xv) To undertake traffic density study by domain expert at the intersection of the incoming vehicles/ outgoing vehicles of the proposed project with NH 200 which is located at about 200 mtr from the project side.
- xvi) To undertake socio- economic study of the locality through the domain expert.

- xvii) Sulphur content in coal tar and sulphur mass balance in the whole process.
- xviii) Detail report on phenol content, cyanide content and hydrocarbon content present in air, oil and water.
- xix) Details of Hydrocarbon loss during the manufacturing process.
- xx) Power consumption requirement including renewable energy details.
- xxi) A box diagram for material balance with flow chart.
- xxii) Occupational exposure hazard management details.

ITEM NO. 09

PROPOSAL FOR AMENDMENT ENVIRONMENTAL CLEARANCE OF M/S. SASWAT INFRASTRUCTURE PVT LTD FOR PROPOSED LS+US+12 MULTISTORIED RESIDENTIAL APARTMENT BUILDING OVER A BUILT-UP AREA 47036.87 SQM AT PATAPUR, IN THE DISTRICT OF CUTTACK IN ODISHA OF SRI SWADESH KUMAR ROURAY – MOD EC

1. This proposal is for amendment of environmental clearance of M/s. Saswat Infrastructure Pvt Ltd for proposed LS+US+12 multistoried residential apartment building over a built-up area 47036.87 sqm at Patapur, in the district of Cuttack in Odisha of Sri Swadesh Kumar Rouray.
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. **Project details:** The Environment Clearance had been obtained from SEIAA, Odisha vide letter no. 239247/60-MIS/11-2021, dated 27.12.2022 for proposed LS+US+12 multistoried residential apartment building with commercial facility with built up area 43223.23 sqm. Now the proponent has amended the proposal for construction of proposed LS+US+12 multistoried residential apartment building with built up area 47036.87 sqm. for M/s Saswat Infrastructure Pvt. Ltd. at Patapur, in the district of Cuttack in Odisha.
4. **Location and connectivity:** The proposed site is located at Mouza-Patapur, Dist-Dist- Cuttack, Odisha. The geographical co-ordinates of the project site is bounded by Latitude – 20°26'51.52"N & Longitude - 85°50'0.98"E. River Kathajodi is flowing at a distance of 200 metres in the North direction. The nearest railway stations are Barang at 5.5 Km, Cuttack Railway Station is 7.2 km from project site and Bhubaneswar Railway Station is at a distance of 20 Km (by road) from Project site. The nearest Airport is Biju Patnaik Airport, Bhubaneswar, which is approx. 23 km (by road) from the project site.
5. **Drainage Pattern:** The study area is drained by several streams of different order. Treated wastewater will be dispose to the Kathajodi River after maintaining the waste disposal standard.
6. **Building Details:**

Particular	As per EC dated 27.12.2022	Amendment of EC
Project Name	Proposed LS+US+12 Multistoried Residential Apartment Building with Commercial Facility	Proposed LS+US+12 Multistoried Residential Apartment Building
Plot Area	9432.52 Sqm	9432.52 Sqm
Ground Coverage	3743.02 sqm (39.99 %)	3224.51 sqm (34.18 %)
FAR (Floor Area Ratio)	3.632	3.846
FAR Area	34259.91 sqm	36006.72 sqm
Built up Area	43223.23 sqm	47036.87 sqm
Maximum Height	45.04 m	46.24 m
Total Parking Area	8735.66 sqm	8735.06 sqm
Green Belt Area	1933.66 sqm (20.5 %)	1933.66 sqm (20.5 %)
Road Area	1829.66 sqm	1829.66 sqm
Parking Area	Covered – 8296.65 sqm Open – 439.01 sqm Total – 8735.66 sqm	Covered – 8296.65 sqm Open – 439.01 sqm Total – 8735.66 sqm
Maximum No. of Floor	LS+US+12	LS+US+12
Power/Electricity Requirement & Sources	Total – 1566.6 KW Source: TPCODL	Total – 1566.6 KW Source: TPCODL
No. of DG sets	1x200 KVA & 1x82.5 KVA	1x200 KVA & 1x82.5 KVA
Water requirement	137.2 KLD (Fresh)	162.0 KLD (Fresh)
Sewage Treatment Plant	STP Capacity - 200 KLD	STP Capacity - 230 KLD
Estimated Population- Residential, Commercial, Floating/visitors	Residential - 1477 Nos. Floating – 148 Nos. Commercial- 58 Nos.	Residential - 1781 Nos. Floating – 79 Nos.

7. **Water requirement:** Fresh make up of 162.0 m³ /day will be required for the project which will be sourced from Ground water.

Sl. No.	Description	Total Population	Per Capita Consumption (ltr/day)		Water Requirement (KLD)		
					Domestic	Flushing	Total
1.	Residential	1781 nos.	Fresh (90)	Flushing (45)	160.3	80.1	240.4

2.	Floating	79 nos.	Fresh (20)	Flushing (25)	1.6	1.9	3.5
Total					161.9≈162	82.0	243.9≈244.0

- 8. Waste disposal:** The site is not coming under Cuttack municipal corporation development area. So, all the solid waste generated will be handed over to a CMC approved vendor. Treated wastewater will be disposed to the roadside nala after maintaining the waste disposal standard.
- 9. STP:** Every building generates wastewater amounting about (80 % of fresh water consumed + 95 % of flushing water). The major source of wastewater includes the grey water from kitchens, bathrooms and black water from toilets. It is expected that the project will generate approx. 207.5 m³/day of wastewater. The wastewater will be treated in the STP of capacity of 230 m³/day provided within the complex. Out of which 197.1 m³/day will be recycled within the project for flushing (82.0 m³/day), landscaping (18.5 m³/day), STP loss (10.4 m³/day) & dust suppression in road area (12.8 m³/day) and 83.8 m³/day surplus in Non monsoon period and 115.1 m³/day will be generated which will be discharged to the drain.
- 10. Rainwater harvesting:** 18 numbers of rainwater harvesting pits at selected locations, which will catch the maximum run-off from the area are proposed for this project. Rainwater harvesting has been catered to and designed as per the guideline of CGWA. Peak hourly rainfall has been considered as 120 mm/hr. The recharge pit of size 2.0 m dia., and 2.5 m effective depth is constructed for recharging the water. At the bottom of the recharge well, a filter media is provided to avoid choking of the recharge bore.
- 11. Greenbelt:** About 3 m wide all around the proposed project has been provided for development of trees in two rows. The plantation matrix adopted for the green belt development includes pit of 0.3 m x 0.3 m size with a spacing of 2 m x 2 m. Multi-layered plantation comprising of medium height trees (7 m to 10 m) and shrubs (5 m height) are proposed for the green belt. Total green area after amendment remains same i.e. 1933.66 sqm (20.5 %) of the plot area.
- 12. Solid waste generation:** Around 85 kg/day of STP sludge will be generated. From the residential complex solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.45 kg/person/day, which will be about 801.5 kg/day.

S. No.	Category	Counts (heads)	Waste generated (kg/day)
1.	Residents	1781 @ 0.45 kg/day	801.5
2.	Floating Population	79 @ 0.15 kg/day	11.9
4.	STP sludge		85.0
TOTAL SOLID WASTE GENERATED			898.4 kg/day

- 13. Power requirement:** The total consolidated electrical load estimate for proposed project is about 1566.6 KW. Power will be supplied by 1468.36 KW source of TPCODL of Odisha State Electricity Board. Also, in case of power cut, 100 % power backup generator will be provided for common uses only. For this purpose diesel generator having 200 KVA (1 no.) & 82.5 KVA (1 no.) capacities will be provided. There are 80 nos of Solar Lighting poles (@72 Watt with panel for generation) has been proposed for Street lighting. Assuming, only 4 hours of sunlight available

throughout the day time, therefore electrical energy generated by 67 nos. of PV solar panel per day is 92.44 KW.

14. Parking details:

Parking Area Provided			
Covered Parking Area			8296.05 sqm
Open Parking Area			439.01 sqm
Total Parking	--	--	8735.06 sqm
Equivalent Car Space Provided			
	Area(sqm)	Area/ECS	
Covered Parking Area	8296.05	28	297 ECS
Open Parking Area	439.01	25	18 ECS
Total Parking Provided			315 ECS
Visitor Parking Provided (10%)			772.18 sqm

15. Project cost: The estimated cost of the project is 60 crores. Cost for environment management is 1.8 crores.

16. Environment Consultant: The Environment consultant **M/s Centre for Envotech and Management Consultancy Pvt. Ltd, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee.

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

- Comparative statement of all parameters of EC of existing project and proposed modification.
- Copy of approval letter of revised building plan.

ITEM NO. 10

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR UCHHABAPALI STONE QUARRY-1,2,3,4,5,6,7 & 8 (UNDER CLUSTER APPROACHED) OVER AN AREA OF 70.87 ACRES OR 28.680 HA HAVING KHATA NO.34, PLOT NO. 597,639,640 &751 IN VILLAGE UCHHABAPALI UNDER LOISINGHA TAHASIL OF BALANGIR DISTRICT OF TAHASILDAR, LOISINGHA – EC

- This proposal is for environmental clearance of Uchhabapali stone quarry-1,2,3,4,5,6,7 & 8 (under cluster approach) over an area of 70.87 Acres or 28.680 Ha. having Khata No.34, Plot No. 597,639,640 &751 in village Uchhabapali under Loisingha Tahasil of Balangir District of Tahasildar, Loisingha.

2. **Category:** As per EIA notification 2006 and subsequent amendments, the project falls under B1 category item 1(a)-Mining of Minerals in the Schedule of EIA Notification, 2006 & Subsequent amendments thereof. The project is coming under B1 Category as the lease area is greater than 5.0 Ha.
3. **Terms of Reference (TOR) details:** The Terms of Reference for all the quarries was issued by SEIAA on dated 22/02/2022 for following proposals - SIA/OR/MIN/70280/2021, SIA/OR/MIN/71138/2022, SIA/OR/MIN/71161/2022, SIA/OR/MIN/71162/2022, SIA/OR/MIN/71184/2022, SIA/OR/MIN/71185/2022, SIA/OR/MIN/71186/2022, SIA/OR/MIN/71187/2022
4. **Public hearing details:** Public Hearing for Uchhabapali stone quarry-1,2,3,4,5,6,7 & 8 (under cluster approach) was conducted on 18.10.2022 at 11.00AM at village - Uchhabapali under Loisingha Tahasil of Balangir District. Issues raised in Public Hearing are – Precautions to be undertaken for controlled blasting in the stone quarry and maintenance of village road and local employment, health hazards faced by local people due to blasting. For CER activities, a total amount of Rs.1,00,000 has been allocated.
5. Quarry leases will be auction by Tahasildar, Loisingha after obtaining statutory clearances.
6. Mining Plan with Progressive Mine Closure Plan has been approved by Joint Directorate of geology, Zonal Survey, Balangir, Odisha vide Memo no. 1293 as a copy to RQP Sri Sai Datta Das dated 23/11/2021.
7. The capacity of the proposed production for Stone is 56,000 m³/year & capacity of 2,80,000 cum stone for five years. This cluster is spread over an area of 28.680 ha.
8. **Location and connectivity:** The lease area is bounded by Latitude N20° 50'46.3" to 20° 51'05.8"& Longitude E83° 20' 30.3" to E83° 21' 20.3". It is a part of area covered in the Survey of India Toposheet No. F44X5. The lease area is located at a distance of 17 km from Tahasil Loisingha. Village Uchhabapali is at a distance of 1 km from to the mining area. District Bolangir is at a distance of 22 km. The east coast railway line is at a distance 17kms from the lease area. NH-26 is at a distance of 17 km and SH-42 is at a distance of 13 km from the lease area.
9. There is no national park, wildlife sanctuary, eco sensitive areas and industrial area situated within 10Kms radius of the lease area.
10. **Topography and Drainage:** The area reference comprises an isolated small mound forming a part of northwest-southeast trending hill range. As per prospecting report the highest and lowest altitude of the hillock is RL 274 at the central part on top of the hillock and the lowest is 195 RL. The total lease area covers with the rock mass without any vegetation. The target area represents a hilly terrain with the highest altitude of 274 mRL & the lowest altitude of 195 mRL. The topography slopes towards the SW direction and the surface run off passes through the seasonal nala in the SW direction. The entire surface run off passes through different seasonal nala shown in the drainage plan. The garland drain and siltation pond are being designed in a proper manner so that the surface mine water drained to mainstream at the southern site of the lease area. Drainage pattern of the area is dendritic type.

11. **Reserves:** Total geological and mineable reserves are 440805 cum and 153918 cum respectively.
12. **Mining method:** Mining of stone from the Uchhabapali Cluster Stone Quarry bearing Plot no- 597,640,639,751, Khata No- 34 will be carried out by means of open cast semi-mechanised mining method. There topsoil will be used for greenbelt development and mine waste approx. 5% of the total production will be stacked separately, that will be used as road building material. To facilitate further mining, development of benches is suggested having 6 m height and 450 face slope. Jack hammer drills of 32 mm diameter rods will be deployed to drill blast holes and these will be charged with explosive cartridges. Wet drilling will be carried out & blasting will be there on contract basis. Quarrying activities will be done following all the security majors. Rules and regulations of DGMS and IBM will be observed during the quarrying operations to avoid unwanted circumstances. Muffled blasting will be carried to reduce the ground vibration, fly rock etc. due to blasting. Mined out material will be loaded into the dumpers with the help of JCB and will be send to the nearby established crusher outside the lease area and finally the material of commercial use as per the demand of the market will be transported by covered trucks / dumpers to its final destination. Since the proposed is a sand mining project, there will be no emission of noxious gas to the air during the mining operation. There will be, however, generation of a negligible amount of dust during excavation of stone. Suitable measures for dust suppression will be carried out by spraying water at dust generating points. Emission of noxious gas from vehicles can be controlled by regular maintenance.
13. The quarry will be mined for five years. The average proposed rate of production is 56000 Cum (max) per annum and a total production of 280000 Cu.m in the plan period.
14. **Baseline details:** Baseline study was conducted on Pre-Monsoon Season from 1st March 2022 to 31st May 2022.

Air Quality Monitoring results - The concentrations of PM 10 and PM 2.5 for all the 8 AAQM stations were found between 51.7 to 86.3 µg/m³ and 15.50 to 27.60 µg/m³ respectively. The concentrations of SO₂ and NO_x were found to be in range of range of 6.20 to 10.60 µg/m³ and 9.30 to 15.90 µg/m³ respectively.

Noise Quality Monitoring results - The noise levels varied in the study area during day time from 47.7 dB (A) Leq to 62.3 Leq dB (A). The night time noise level in the study area is in the range of 35.9 dB (A) Leq to 59.3 Leq dB(A). The day time as well as night time noise was also within stipulated standards of CPCB.

Ground water Quality Monitoring results - The ground water analysis for all the 8 sampling stations shows that the samples meet the desirable standards pH ranges from 7.19 to 7.49. TDS in samples ranges from 426 mg/L to 927 mg/L. All the samples meet the permissible limit of 2000 mg/L. Total Hardness in the water ranges from 266 mg/L to 527 mg/L. All the samples meet the permissible limit of 600 mg/L. Calcium content in the water ranges from 44.3 mg/L to 97.4 mg/L, all the samples meet the permissible limit of 200 mg/L. Magnesium content in the water ranges from 18.5 mg/L to 40.6 mg/L. All the samples meet the permissible limit of 100 mg/L.

Surface water Quality Monitoring results - The surface water analysis for all the 8 sampling stations shows that pH ranges from 7.36-7.83. TDS in samples ranges from 195 mg/L to 406 mg/L. Total hardness in the water ranges from 81 mg/L to 162 mg/L. Calcium content in the water ranges from 8.1 mg/L to 29.5 mg/L. Magnesium content in the water ranges from 6.8 mg/L to 14.3 mg/L.

Soil Quality Monitoring results - Samples collected from identified soil locations indicate pH in the range from 7.12-7.64. Conductivity of the samples were in the range from 0.09 µmhos/cm – 0.19 µmhos/cm. Moisture were in the range from 9.5 % to 17.5%. Organic Carbon ranges from 0.12% -0.31%. Organic Matter ranges from 0.23% -0.48%. Phosphorus in the samples ranges from 47 mg/kg- 81 mg/kg. Total Nitrogen in the samples ranges from 125 mg/kg- 162 mg/kg. Potassium in the samples ranges from 104 mg/kg - 218 mg/kg. Calcium in the samples ranges from 49 mg/kg - 92 mg/kg. Magnesium ranges from 18 mg/kg – 54 mg/kg. Chloride ranges from 25 mg/kg- 63 mg/kg. Copper, zinc, lead, cadmium and nickel all lies well in the Soil.

15. **Water requirement:** The total water requirement will be approximately 5 KLD for different purposes like domestic, Dust suppression, plantation purposes. Water will be withdrawn from tube wells from nearby village.
16. **Power 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/tippers and tractors will be used for transportation. So, the approximate quantity of the fuel/Diesel used per day is 1000Lit/day.
17. **Greenbelt:** Plantation will be raised along both sides of the roads, available vacant spaces and in the riverbank. It is proposed for planting 1200 nos. of saplings per annum by the lessee on the sides and village approach roads which is to be undertaken in consultation with the concerned authority.
18. **Manpower:** A total of 67 nos. of workers are to be employed in this quarry out of which, 10 nos. are skilled, 15 nos. are semi-skilled, and 34 nos. are unskilled, and 8 nos are mines manager/mine permit manager for winning/raising of 280000 Cu.m. Stone production for the plan period.
19. **Project cost:** Total estimated cost of the project will be 2 Crores. EMP cost is Rs. 57,00,000/-. CER fund shall be allotted as per the MoEF&CC office memorandum F.No.22-65/2017-IA.III dated 1st May 2018. The CER budget allotted – Rs. 1,00,000
20. **Environment Consultant:** The Environment consultant **M/s Green Circle Inc. Vadodara** along with the proponent made a presentation on the proposal before the Committee.

Considering the information furnished and the presentation made by the consultant, **M/s Green Circle Inc. Vadodara** along with the project proponent, the SEAC decided to take decision on the proposal after receipt of the following from the proponent:

- a) All the mines in cluster are operating mines. Copies of ECs of all the mines obtained earlier.
- b) Previous production details of all leases duly certified by Tahasildar.
- c) Mitigation measures for flying rocks during blasting.

- d) Procedure for blasting and magazine management.
- e) The layout of mining area, magazine area, waste dumping area and safety plan for explosives.
- f) Traffic study report by domain expert.
- g) Dimensions of settling pit, garland drain and water usage along with silt management.
- h) DLC certificate from concerned DFO.

B. RE - CONSIDERATION OF OLD CATEGORY B1 & B2 PROPOSALS RETURNED FROM SEIAA, ODISHA - 04 Nos.

ITEM NO. 01

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF BASINGGORJA DECORATIVE STONE MINES OVER AN AREA OF 2.428 HECTARES IN VILLAGE - BASINGGORJA UNDER TAHASIL - GUNUPUR OF DISTRICT - RAYAGADA, ODISHA OF SRI G. R. SAMYUKTA - EC

1. This is a proposal for Environment Clearance of for Basinggorja Decorative Stone Mines over an area of 2.428 Hectares in village - Basinggorja under Tahasil - Gunupur of District - Rayagada, Odisha of Sri G. R. Samyukta.
2. The project falls under category "B" or activity 1 (a) – Mining of Minerals projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. Basinggorja Decorative Stone Mine over an area of 2.428Ha of M/s. Stone Fileds, Prop-Smt. G.R.Samyukta is located in village Bassinggorja under Gunupur Tahsil of Rayagada District Odisha. The lease was granted to M/s. Stone Fields being the successful bidder for tenure of 20 (Twenty) years from the date on which this executed deed is registered.
4. The Mining Plan has been approved by the Joint Director of Mines, Directorate of Mines, Bhubaneswar, Odisha. under section 2 of Rule 28 (4) of OMMC, 2016 as per clause 5.
5. Mining plan prepared by Sri H.C. Sahoo, vide his IBM's Regn. No. RQP/BBS/033/2001/A was approved on 24.10.2006 by the Directorate of Mines, Odisha, Bhubaneswar for the purpose of grant / execution of the mining lease and mining operation was commenced in FY 2006-07 by the submission of an opening notice to the concerned department of State Govt.
6. Subsequently, Scheme of Mining consisting of review of Mining Plan for 5 years from 2006-07 to 2010-11 and year wise development for next 5 years from 2011-12 to 2015-16 was prepared by the RQP, Sri S.C. Nayak, vide his IBM's Regn.No. RQP/CAL/211/95/A and submitted by the Lessee for approval. Scheme of Mining could not be processed for approval due to sad demise of the proprietor, Late G.N.V Naidu.
7. Since the period of submitted Scheme of Mining was valid up to 31.03.2016, the next Scheme of Mining of Basinggorja Decorative Stone Mine over an area of 2.428 hectares prepared by Sri S.C. Nayak vide his DM's registration number RQP/OD/029/2015 under Rule 18(2) of GCDR, 1999 for a period of 5 years from 2016-17 to 2020-21 was approved by the Directorate of Mines, Odisha, Bhubaneswar.

8. Since the approved Scheme of Mining is valid up to 31.03.2021, the present Scheme of Mining has been prepared by the same RQP, Sri S.C. Nayak vide his DM's Regn No.RQP/OD/029/2015, M/s MINESKETCH Consultants (P) Ltd, Flat No.205, Bhagwan Tower, Cuttack Road, Bhubaneswar-751006
9. **Location and Connectivity** - The lease area under reference featured in the Survey of India Topo sheet no. 65M/16 is on Khata No 9, Plot No.2/p. The geo coordinates of the lease area is 19°06'47.46"N to 19°06'51.60"N & 83°52'11.52"E to 83°52'05.40"E. The area is located 80 km from District Headquarters Rayagada and 246 Km from State Capital Bhubaneswar. Nearest railway stations is at Gunupur at an distance of 7.8 KM(SE). The lease area can be approached from SH: 4 & NH: 326 (Jeypore highway) at a distance of 7.5 Km & 20 Km. Nearest Airport is Jeypore Airport which is at a distance of 206 Km. There is neither seasonal nor perennial nala within the lease area. Drainage system in the region is dendritic. Surface runoff water in the region will be discharged to the natural drainage course.
10. **Reserve Estimation** has been calculated as 273486cum
11. The lease has proposed to excavate a total of 24,000 m³ of decorative stone and 4800 m³ (max) annually from Bassinggorja Decorative Stone Quarry. The method of mining is Open cast semi-mechanized.
12. Life of mine is 32 years.
13. A total of 30,000 m³ waste is likely to be generated during the plan period.
14. **Power requirement:** Power requirement is 100 KVA shall be required for lighting during night time and shall be taken from the State Grid. Necessary permission shall be taken after commencement of the project. Diesel will be used for running of equipments during mining operation. It is estimated that 1 KLD of diesel will be required and same shall be procured from local pump station.
15. **Water requirement:** Water requirement for the project is 8 KLD for domestic, plantation & dust suppression which will be sourced from Govt sources of water.
16. **Green Belt Development:** About 2000 sapling of local species will be planted over an area of 0.4 ha in 7.5m wide safety zone along lease boundary, Haul Road side.
17. **Employment Potential:** Total manpower requirement is 42no.s. Administrative & supervisory personnel will be 7 numbers and 32 workers will be employed per day under skilled, semi-skilled & un-skilled category in the quarry with 3 nos. of absentee. 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's.
18. The cost of the project is ` 110 lakhs. EMP capital cost of the project is 14.0 Lakh. EMP Recurring cost is 8.80Lakh/Annum. CSR Budget is 9.0 lakh/Annum
19. The proponent has made a presentation on the proposal before the Committee on 18.05.2022.

20. The SEAC in its meeting held on dated 18.05.2022 decided to take decision on the proposal after receipt of certain information / documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
i)	Year wise production details of mine duly certified by mining officer.	Certificate regarding Production since 2006-07 till date form DDM, Koraput Circle is attached as Annexure -1 .
ii)	Cluster certificate from the Mining Officer that there is no mines within 500 meters of proposed quarry.	Necessary Certificate regarding no other mine present within 500 meter from the project boundary is attached as Annexure-2 .
iii)	Brief write up why the case will not be treated under Violation category.	Deputy Director Mines has issued permission for mining over the project as per the approved mining plan, production has been done beyond the limit approved mining plan. The same quantity also sold by paying the royalty to Government of Odisha. During Mining operation all the environmental measures has been taken as proposed in mining plan. There is no deviation of conditions on approved mining plan, Hence, we request your good self for have lenient view of our application and take necessary action for early issuance of environmental clearance.

21. The SEAC in its meeting dated 02-11-2022 recommended for grant of Environmental Clearance with stipulated conditions and following additional conditions;

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

22. The proposal was placed in was placed in the meeting of SEIAA held on 13.12.2022 for consideration of EC. The Authority deliberated on the matter and observed the following:

“In response to ADS raised by SEAC, the PP vide his letter dated 10.07.2022 at Point No.3 has mentioned that production has been done “beyond the limit in approved mining plan”.

23. In view of this Suo-moto declaration, the Authority decided that the SEAC may re-examined the proposal in the light of MoEF & CC, Govt. of India OM dated 07.07.2021 for any violation. The proposal has referred back to SEAC through online.

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

- (i) In response to ADS raised by SEAC, the PP vide his letter dated 10.07.2022 at Point No.3 has mentioned that production has been done “beyond the limit in approved mining plan”. The proponent has to clarify this and justify why this will not be treated as a violation case.

ITEM NO. 02

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR SARUABIL CHROMITE BLOCK (ML AREA: 246.858 HA) WITH A PRODUCTION OF 1.0 MTPA CHROMITE ORE (ROM) WITH MAXIMUM EXCAVATION OF 6.48 MILLION CUM PER ANNUM THROUGH OPENCAST MINING AT VILLAGES SARUABIL, KAMARDA, & TAILANGI UNDER SUKINDA TEHSIL, JAJPUR DISTRICT FOR M/S. TATA STEEL MINING LIMITED OF SRI BIBHU DUTTA NANDA - EC

1. The proposal is for Environmental Clearance for Saruabil Chromite Block (ML Area: 246.858 Ha) with a production of 1.0 MTPA Chromite Ore (ROM) with maximum excavation of 6.48 Million Cum per Annum through Opencast Mining at villages Saruabil, Kamarda, & Tailangi under Sukinda Tehsil, Jajpur District for M/s. Tata Steel Mining Limited of Sri Bibhu dutta Nanda.
2. The project falls under Category-B (≤ 250 ha in respect of major minerals other than Coal) as per MoEF&CC Notification No. S.O. 1886(E) Dated 20th April, 2022.
3. The M/s Misrilall Mining Pvt. Ltd. operated in Saruabil Chromite Block from 15.05.1954 till 31.03.2020. Odisha Government had issued the Letter of Intent (LOI) for Chromite ore mining in Saruabil Chromite Block to Tata Steel Mining Limited (formerly known as M/s T S Alloys Limited) over an area of 246.858 Ha for a period of 50 years vide letter no. 223/SM dated 6th January 2020. In terms of section 8B(2) of MMDR Act, 1957 read with rule 9A(4) of MCR, 2016, the bidder is deemed to have acquired all valid rights, approvals, clearances, licenses and the like vested with the previous lessee for a period of two years from the date of execution of the lease deed or till the date of getting fresh approvals, clearances, licenses, permits and the like whichever is earlier vide letter no. 4174/SM dated 29th May 2020. Lease deed for the Saruabil Chromite Block was executed on 26th June 2020.
4. Terms of Reference was granted by MoEF & CC dated 29.12.2020. Public Hearing was conducted on 22.12.2021.
5. The proponent has applied to SEIAA, Odisha for EC as category B as per MoEF&CC Notification No. S.O. 1886(E) Dated 20th April, 2022.
6. **Location and Connectivity:** The Saruabil Chromite Block is spread over an area of 246.858 Ha and it falls in Survey of India Topo Sheet Open Series Map No. F45N16 (73G/16) with coordinates Latitude: N 21°02'42.64" to 21°03'49.65" and Longitude: E 85°48'35.38" to 85°49'49.92". Saruabil Chromite Block is situated in Jajpur district. Tomka Mangalpur State Highway passes through the lease area. The nearest National highway, NH – 200, is situated about 10.5 Km aerial distance from the proposed area and the Chromite block is at about 23

Km Road distance from Daitari Railway Station and 136 km distance from Biju Patnaik airport, Bhubaneswar.

7. The previous Environment Clearance for the project was granted in the name of M/s Mishrilall Mines Pvt. Ltd. for production of 0.35 MTPA Chromite Ore with expansion of Chromite Ore beneficiation plant from 20 TPH to 30 TPH by MoEF vide letter no. J-11015/72/2010-IA. II(M), dated 20.07.2018.
8. Mining Plan approved by IBM, Bhubaneswar dated 18.05.2018. Mining Plan of TSML was approved on 10.11.2020.
9. Environmental Clearance for production of 0.35 MTPA Chromite Ore and enhancement of Chrome Ore beneficiation plant from 20 TPH to 30 TPH from MoEF&CC dated 20.07.2018. However, COB plant has been dismantled by previous lessee.
10. Forest Diversion over 224.63 Ha of entire forest land involved from MoEF&CC dated 16.01.1997, (As per Sabik settlement application for diversion of 17.14 ha is in process)
11. The proponent has obtained Consent to Establish from SPCB, Odisha dated 29.11.2016 and Consent to Operate from SPCB, Odisha dated 16.03.2022.
12. Surface right from District Collector, Jajpur over 242.581 Ha has been obtained.
13. Ground water with drawl permission has been obtained from CGWA, (GoI) dated 16.07.2019.
14. Deep hole blasting & use of HEMM has been obtained from DGMS, (GoI) dated 19.03.2019 (TSML has also obtained the fresh 106 (2) (B) on 28.05.2021).
15. **Method of Mining** - The current project involves mining of Chrome Ore (Chromite) through a Fully Mechanized Opencast mining method with HEMM and deep hole blasting. The proposed production capacity is 1.0 Million Tonnes Per Annum of Chromite Ore (ROM) with total excavation of 6.48 Million Cubic Meters per Annum. The bench height will be about 6 m with width of 10 m. Bench slope has been designed at 70°. Maximum Overall Pit Slope angle 30°. Study of further slope steepening has been initiated under the guidance of CIMFR, Dhanbad. For Drilling and blasting - 150 mm diameter holes are drilled with depth of 6 to 8 m in ore body. Holes will be charged with SME with booster. Powder factor of 7 MT/kg in Ore. For Transportation - Dumpers (44 nos of 35 tonne capacity) are being used to transport the ore from quarry to stack yard.
16. **Production Details for the plan period (2020-21 to 2024-25)**

Ore & OB Excavation during the plan period (2020-21 to 2024-25)				
Year/ Pit No.	Total ROM Production (MT)	Total ROM Production (CuM)	OB/Waste Volume from Development of Pits (CuM)	Total Excavation (CuM)
1st year (2020-21)/ B & C	150000	44200	1,195,000	12,39,200
2nd year(2021-22)/ B & C	400000	117800	1,491,000	16,08,800
3rd year (2022-23)/ B & C	450000	132500	2,007,000	21,39,500

4th year (2023-24)/ B & C	700000	206100	3,639,000	38,45,100
5th year (2024-25)/ B & C	900000	264900	5,571,000	58,35,900
5th year (2024-25)/ D	100000	29400	619,000	6,48,400
Sub Total (5th Year)	1000000	294300	6,190,000	64,84,300
Total	2700000	794900	14,522,000	1,53,16,900

17. **Power Requirement:** The fully mechanized mining will be done in a three shift of 8 hours each. The use of electricity will be for lighting/illumination/pumping purposes in mining operations and will be obtained from CESU/ Tata Power/ Any other. The electricity/DG power will be provided at the office, camp, and mines. Power requirement of ~1000 KVA would be met from local grid maintained by Central Electricity Utility Services (CESU)/ Tata Power/ Any other.

18. **Water Requirement:** Total water requirement has been estimated to be 330 KLD. There are 2 borewells located inside the mine lease area. As the mine workings has intersected the groundwater table, seepage of groundwater is expected. Dewatering of mine will be undertaken and the water will be utilized for various purposes. Water requirement and usage has been detailed in table.

Activities	Daily Water Requirement, KLD	Effluent Generation, KLD	Losses, KLD	Treatment	Source of water
Drinking & Domestic Use, Canteen	40.00	32.00	8.00	Septic tank/ Soak Pit	Ground water from Borewell
Dust suppression	250.00	0.00	250.00	--	Mine pit water
Plantation & Gardening	100.00	0.00	100.00	--	Mine pit water
Workshop, Wheel wash & Vehicle wash	10.00	8.00	2.00	Treatment in Oil & Grease trap, recycled for wheel wash & dust suppression	Mine pit water
ETP wash water	20.00	0.00	20.00	--	Mine Pit water
Total	420.00	40.00	380.00		

19. Baseline study was conducted during October – December, 2020. The observations are Ambient air quality monitoring carried out in 8 different sampling locations. During the study period, the concentration of PM10 = 29 to 64.1 µg/m³, PM2.5 = 17 to 38.5 µg/m³, SO₂ = <4 to 8.1 µg/m³, NO_x = <9 to 13.6 µg/m³.

20. 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. As Per the data it has been observed that the pH ranges from 5.06 to 7.78, total hardness varies from 14 to 180 mg/l, chloride ranges from 3.8 to 38 mg/l, TDS ranges from 20 to 316 mg/l.
21. The surface water samples were collected from 8 different sampling stations. As Per the data it has been observed that the pH ranges from 7.21 to 7.84, DO ranges from 4.4 to 6.3 mg/l, COD ranges from 6.0 to 20 mg/l.
22. The ambient noise levels were measured in 8 sampling locations. As Per the data it has been observed that Ambient noise ranges from 36.7 dBA to 60.4 dBA.
23. The soil samples were collected from 12 different sampling stations. As Per the data it has been observed that pH ranges from 7.03 to 7.24, SAR ranges from 2.6 to 4.4 %, clay percent ranges from 59.8 to 73, all the metals are below detectable level.
24. **Employment Potential** - The project will generate 650 manpower in the mine.
25. Total Cost of the proposed project will be ` Rs 179.91 crore with a recurring cost of 66.93 crores and EMP cost is ` Rs 26.75 crore with a recurring cost of 1.79 crores.
26. The project proponent along with the consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar** made a detailed presentation on the proposal on 03.08.2022.
27. 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.
28. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent																
1.	Comparative statement of salient physical features and salient features with reference to environmental parameters, pollution load of the existing mines and proposed expansion shall be submitted.	<p>Air Environment</p> <p>Table 1 Comparison in pollution load for existing and proposed production ($\mu\text{g}/\text{m}^3$)</p> <table border="1"> <thead> <tr> <th>Parameters</th> <th>Existing</th> <th>Proposed</th> <th>% Increase</th> </tr> </thead> <tbody> <tr> <td>Air Pollution</td> <td>61.2</td> <td>67.2</td> <td>4.67</td> </tr> </tbody> </table> <p>Water Environment</p> <p>Table 2 Water Requirement for existing and proposed production (KL/T)</p> <table border="1"> <thead> <tr> <th>Parameters</th> <th>Existing</th> <th>Proposed</th> <th>% Increase</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Parameters	Existing	Proposed	% Increase	Air Pollution	61.2	67.2	4.67	Parameters	Existing	Proposed	% Increase				
Parameters	Existing	Proposed	% Increase															
Air Pollution	61.2	67.2	4.67															
Parameters	Existing	Proposed	% Increase															

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent			
		Water Requirement	3.03	7.21	40
		Power Requirement			
		Table 3 Existing vs proposed Power Requirement (MW)			
		Parameters	Existing	Proposed	% Increase
		Power Requirement	1	1	0
		Greenbelt Requirement			
		Table 4 Existing vs proposed Greenbelt Requirement			
		Parameters	Existing	Additional	
		Total area of Green Belt in Ha.	15.9 Ha	8 Ha.	
		Total Plantation	39000	12800	
2.	Tailing pond and its design existing and proposed and how it will contribute to zero discharge concept.	The previous Environmental Clearance was granted for production of 0.35 MTPA Chromite Ore with expansion of Chromite Ore beneficiation plant from 20 TPH to 30 TPH by MoEF&CC vide letter no. J-11015/72/2010-IA. II(M), dated 20.07.2018 to M/s Misrilal Mines Pvt. Ltd. After TSML leased in Saruabil Chromite Block during the auction process, the same EC was vested to TSML for fifty (50) years as per MMDR Amendment Act, 2021. TSML has not proposed any beneficiation plant within the lease area during Mining Plan approval. Previous lessee has dismantled the COB plant and cleared the area. As reported by previous lessee the EC was approved on 2018 and they have not operated COB plant a single day, thus no tailing was generated, which was also confirmed by TSML during the inspection of ground condition. It is also evident from the below photographs			
3.	Approval letter for 33KLD usage of ground water and application made for proposed expansion to be submitted.	Previous approval letter from Central Ground Water Authority (CGWA) vide letter No.21- 4(73)/CGWA/SER/2008-686 dated 16.07.2019 for withdrawal of ground water of 147,045 CuM/ year consisting of 12,045 CuM/ year through two existing bore wells and 1,35,000 CuM/ year through dewatering the mine seepage from mine pit (Annexure- I). The same has also been vested to TSML as per the MMDR Amendment Act, 2021 (Annexure - II).			

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent								
		Fresh application for withdrawal of 50KLD ground water is attached as Annexure – III.								
4.	Detailed plan for controlling hexavalent Chromium in ground water, surface water and soil surface.	Major hexavalent Chromium concentration is observed from the mine quarry water and run-off from ore stack yard. There are some traces of hexavalent chromium is found in run-off from overburden dumps. As it is an open cast mines, the seepage water is stored in sumps of quarry floor and is simultaneously pumped to Effluent Treatment Plant (ETP) for treatment. During rainy days the surface run-off from ore stack yard and overburden dumps are channelized through garland drains with check dam & settling pit to mine quarry for storage and afterward pumped to ETP for treatment of Cr+6 and Total Suspended Solid (TSS). The treated water is then used for different process such as dust suppression, vehicle washing, plantation and garden use. On monthly basis the ground water quality is being investigated from bore wells to know any contamination of ground water through MoEF&CC & SPCB certified laboratory. At any point of time, no contaminated water from mines is discharged to any soil surface without treatment. The construction activities for installation of 1200 m3/Hr ETP to treat all the surface run off and mine quarry water without any storage, is in progress.								
5.	Suggestions for adaptation/evaluation of new technologies like Ion Exchange Technology, Membrane technology for removal of hexavalent chromium.	<p>Considering the quality and contamination of the inlet water (high TSS and low Cr+6 concentration) and the previous technical research report from IIT, Kharagpur, the mine quarry water and surface run-off is treated with FeSO₄ at acidic pH for faster the Cr+6 to Cr+3 reduction process.</p> <p>Other treatment technologies used for Cr+6 contaminated water have some limitations which is given below.</p> <table border="1" data-bbox="485 1279 1406 1821"> <thead> <tr> <th data-bbox="485 1279 724 1402">Process Name</th> <th data-bbox="724 1279 954 1402">Type of Process</th> <th data-bbox="954 1279 1203 1402">Description</th> <th data-bbox="1203 1279 1406 1402">Comments/Remarks</th> </tr> </thead> <tbody> <tr> <td data-bbox="485 1402 724 1821">Liquid – Liquid Reduction</td> <td data-bbox="724 1402 954 1821">Physical</td> <td data-bbox="954 1402 1203 1821">Amine-based extractants (Hard bases) preferably long-chain quaternary ammonium or tertiary amine-based</td> <td data-bbox="1203 1402 1406 1821">Not feasible for large volume of water</td> </tr> </tbody> </table>	Process Name	Type of Process	Description	Comments/Remarks	Liquid – Liquid Reduction	Physical	Amine-based extractants (Hard bases) preferably long-chain quaternary ammonium or tertiary amine-based	Not feasible for large volume of water
Process Name	Type of Process	Description	Comments/Remarks							
Liquid – Liquid Reduction	Physical	Amine-based extractants (Hard bases) preferably long-chain quaternary ammonium or tertiary amine-based	Not feasible for large volume of water							

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent			
				compounds	
		Chemical Reduction	Chemical	Reduction to Cr(III) using bisulphate/ Ferrous sulphate & subsequent precipitation using Lime and Alkali.	<ul style="list-style-type: none"> • Used in the existing ETP plant • Comparatively high sludge Generation • Treatment of large volume of water
		Adsorption	Physical	Costly chemical used such as titanium dioxide, Zeolite, Goethite etc	<ul style="list-style-type: none"> • Cost very high • Due to high TSS, technology will not be feasible
		Membrane Filtration Technology	Physicochemical	Different membranes like inorganic membrane, liquid membrane, polymeric membrane etc.	<ul style="list-style-type: none"> • Cost very high • Generation of high reject • Short life of membrane • Filter bed chock due to high TSS
		Ion Exchange Technology	Physicochemical	Different ion exchange Resins used	<ul style="list-style-type: none"> • High cost • Selectivity high • Not feasible for high volume of effluent and high TSS
		Electrochemical Process	Physicochemical	Electrocoagulation can remove heavy	<ul style="list-style-type: none"> • pH dependent • High electricity

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent			
				metals from effluents using electromotive force	<ul style="list-style-type: none"> • consumption High silt deposition on electrode and efficiency is low
		Phytoremediation	Biological	Aquatic plant used for extraction of Cr(VI)	<ul style="list-style-type: none"> • Large area needed • Retention time more than 15 days • Not feasible for large volume of effluent
<p>The present treatment process/technology is quite viable while treating huge amount of water. However, latest treatment process has been designed by civil department of IIT, Kharagpur for the upcoming ETP and we will continuously explore new technologies for treatment of same in near future.</p>					
6.	Effective measures taken safety of Damsala Nala.	<p>It is ensuring that no single contaminated water is being discharge to the Damsala Nalla from the mining area. Water from mine quarry, surface run-off from ore stack yard and overburden dump is being treated at ETP and the excess water from ETP is discharged to the Damsala Nala. Online continuous Effluent Monitoring station is installed at ETP in-let and Out-let to monitor the water quality, which connected to the SPCB server without any intermediated server. We are also continuously analyzing the quality Damsala Nala before and after of the lease area. Quarterly, the flow rate of the Damsala Nala is being monitored and reported to SPCB, Odisha MoEF&CC.</p>			
7.	Cross-sectional dimension of retaining wall, check dam and garland drain shall be furnished.	<p>At the toe of the overburden dumps approximately 2804 mtrs of retaining wall, 4159 mtrs of garland drain and 15 nos of settling pits are maintained. As per approved mining plan, protective measures shall also be undertaken during conceptual period and maintained regularly. The details of protective measures to be constructed around proposed dump during the plan period will be as follows (Table 6):</p> <p>At the base of dumps 7 & 8, retaining walls over 2078 m & 1088 m lengths respectively along with garland drains over 1730 m & 1080 m respectively shall be constructed. During the plan period, these retaining walls shall be maintained/ reconstructed. Table 6 shows the details of construction to be undertaken for retaining walls to check rolled down debris from side wall of the dump in a phased manner during the plan period of 5 years (2020-21 to</p>			

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		<p>2024-25). Retaining walls will be 1.5m visible height and 1.0 m thick (Table-1)</p> <p>Followed with retaining wall garland drain shall be constructed which will be 1 m wide x 1.0 m deep to channelize water being drained from dumps phase wise during 5 years (2020-21 to 2024-25) plan period. Check dams at every 300 m in the garland drain shall also be constructed during construction of garland drain. This will help in accumulation of sediments during flow of water which shall be cleaned regularly for easy flow of water to the settling tank.</p>
8.	Report on mining activity done on forest and non-forest area.	<p>Mining activity is being carried out only in diverted forest area (224.63ha) out of total forest land of 241.77Ha as per Mining Plan approved by Indian Bureau of Mines, Govt. of India. During the plan period (2020 – 2025) Mining activity will be carried out in 90.7 ha and waste dump in 100ha. In non-forest land of 5.088 ha, no mining activity is proposed during the plan period. The diversion of non-diverted forest area of 17.14 ha is under process for diversion and the area was kept intact in as is condition. Land details are given below:</p>
9.	Details of Solar generation to be used.	<p>Presently, we are conducting the Energy Audit with the Power Tech Consultants, K-8-82, Kalinganagar, Ghatikia, Bhubaneswar, Odisha-751029. After getting the recommendations we will further working it to reduce the consumption. As per our Sustainability target as “PLAN – A”, we have installed the solar lights in mines haul road and a plan is under process to produce about 30% of the energy requirement from solar installations. In this regard, TSML is involved Tata and Reliance solar power to finalize the work contract for solar installation in both roof top and open areas.</p>
10.	Nature of 5ha. Non forest land present in mining area.	<p>Nature of 5 ha of Non Forest land is Patita and Gharabari kism in our mining lease area.</p>
11.	Copies of compliance to all ADS by the MoEF&CC, Govt. of India and copies of minutes of all meetings of EAC of MoEF&CC, Govt. of India.	<p>No ADS was requested by MoEF&CC after TOR presentation, copy of EAC meeting is attached as Annexure – IV.</p>
12.	Compliance to earlier EC conditions duly certified by the Regional Office,	<p>Certified copy of the previous EC condition and compliance is attached as Annexure – V. Also, Compliance to CTE & CTO conditions duly certified by the SPCB, Odisha is attached as Annexure VI.</p>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	MoEF&CC, Bhubaneswar and Compliance to CTE & CTO conditions duly certified by the SPCB, Odisha.	
13.	Tailings pond and ETP management with flow diagram and water balance.	<p>M/S. TSML has not proposed any COB plant during the plan period, thus tailing generation will be zero.</p> <p>Pumped out mine water is allowed in to the Effluent Treatment Plant (ETP) designed by the department of Civil Engineering, IIT, Kharagpur in May, 2013 where dissolved Cr⁶⁺ is precipitated as Chromium hydroxide (Cr(OH)₃) along with Iron hydroxide (Fe(OH)₃) after mixing with ferrous sulphate (FeSO₄) solution and lime (Ca(OH)₂)/ sodium hydroxide (NaOH). The precipitates are settled out in the sludge pond and clear supernatant water is discharged for dust suppression on haul roads and green belt development and excess water from ETP water is discharged to Damsal nala. The project design for Chromium Effluent Treatment Plant (ETP) at Saruabil Chromite Mines has been designed and modified by IIT, Kharagpur.</p> <p>Basic Process Methodology</p> <p>The existing treatment technology adopted for hexavalent chromium containing mine drainage water is reduction of hexavalent chromium to trivalent chromium using Ferrous Iron in the form of Ferrous Sulphate. The reduced Chromium is precipitated as Hydroxide form [Cr(OH)₃]. Ferrous Iron added for reduction of Hexavalent Chromium is being oxidized to Ferric Iron & subsequently precipitated as Hydroxide [Fe(OH)₃].</p> <p>Process Design comprises of the following units:</p> <ol style="list-style-type: none"> i. Rapid mixing unit for chemical dosing: The mine drainage water is directly pumped to the inlet chamber of baffle units where Ferrous Sulphate dosing is done. ii. Collection tank 1 for chemically treated water: The chemically treated water is stored in the existing settling tank. A pump is installed at the sump which is the part of the tank to deliver waste water along with solids to the Flash mixing unit. iii. Flash mixer unit: The waste water is mixed with Polyelectrolyte in the flash mixing unit prior to the clarifloculation. The Flash mixing unit is attached to the clarifloculator with the tank dimension 1.5m (L) x 1.5m (W) x 1.5m (D). iv. Clarifloculator: The flocculator well is designed for a detention time of 20 minutes. The diameter of flocculator unit is 5.6m and depth is 2.5m and 0.5m free board. The clarifier unit is designed for surface overflow rate around 30m³/m²/d. The diameter of clarifier is 15m and side water depth is 3m with 0.5m free board.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		v. Collection tank 2 for clarified water: The clarified water required storage & the existing lamella clarifier tank serves the purpose of storage. vi. Pressure Sand Filter unit: The pressure sand filter unit operates at a rate of filtration 15m ³ /m ² /h. The treated water from the treated collection tank is further passed through sand filter tanks with high pressure to filter extra TSS in treated water. vii. Filter press: The settled sludge in the bottom of the clarifier is dewatered to sludge chamber from where it is pumped to Filter press achieving a consistency of 40% and then to drying beds & to dispose to hazardous waste management facilities. Filter press containing plate size 1.2m x 1.2m x 0.5m & 36 nos. of chambers is for sludge dewatering. viii. Chemical dosing & electrical panel room: All the dosing work i.e. Ferrous Sulphate, Lime, Polyelectrolyte, etc. are made through dosing pumps. These chemical dosing, electrical work & chemical storing are done from separate buildings. The first floor has dosing solution preparation facility & ground floor has MCC area for Ferrous Sulphate, Polyelectrolyte and lime/NaOH storage.

29. The SEAC in its meeting dated 05-11-2022 recommended for grant of Environmental Clearance with stipulated conditions and following specific conditions.

- i) The mine shall explore implementation of membrane-based technology for removing Hexavalent Chromium from Surface run off & mine drainage water.
- ii) The mine shall take adequate measures to minimize the discharge of treated water to Damsala nallah.

30. The proposal was placed in the meeting of SEIAA held on 13.12.2022 for consideration of EC. The Authority deliberated on the matter and observed the following:

- (i) The present proposal relates to grant of EC for a production capacity of 1.0MTPA from the ML area of 246.858Ha, out of which 17.14Ha is forest land.
- (ii) Further, the proposal involves a violation case of FC involving 17.14Ha of forest land as per Sabik Settlement.
- (iii) As per MoEF & CC, Gol OM dated 09.09.2011, Stage-1 Forest Clearance is a pre requisite for issue of EC.

31. Hence, the Authority decided that the SEAC may re-examine the proposal in light of MoEF & CC, Gol OM dated 09.09.2011. The proposal is referred back to SEAC through online.

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

- i. The present proposal relates to grant of EC for a production capacity of 1.0MTPA from the ML area of 246.858Ha, out of which 17.14Ha is forest land.
- ii. Further, the proposal involves a violation case of FC involving 17.14Ha of forest land as per Sabik Settlement.

- iii. As per MoEF & CC, Govt OM dated 09.09.2011, Stage-1 Forest Clearance is a pre requisite for issue of EC.
- iv. The air, water and soil quality data should be provided in tabular format along with Indian Standards.

ITEM NO. 03

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR KHATKURBAHAL (NORTH) BLOCK LIMESTONE MINE (M.L. AREA- 156.43 HA) WITH LIMESTONE PRODUCTION CAPACITY OF 1.6 MILLION TPA AT VILLAGES KHATKURBAHAL & PHALSAKHANI, TEHSIL KUTRA, DISTRICT SUNDERGARH, ODISHA W.R.T INCLUSION OF MINOR MINERAL DOLOMITE (2.4 MTPA) FOR SALE, INSTALLATION OF 600 TPH CAPACITY CRUSHER FOR DOLOMITE WITHIN ML AREA AND PERMISSION FOR SALE OF LIMESTONE (UP TO 1.6 MTPA) IN OPEN MARKET FOR M/S. SHIVA CEMENT LIMITED OF SRI MAONJ KUMAR RUSTAGI – MOD EC

1. The proposal is for Modification of Environmental Clearance of Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) with limestone production capacity of 1.6 million TPA at Villages Khatkurbahal & Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha w.r.t inclusion of minor mineral Dolomite (2.4 MTPA) for sale, installation of 600 TPH capacity crusher for Dolomite within ML area and permission for sale of limestone (up to 1.6 MTPA) in open market for M/s. Shiva Cement Limited of Sri Manoj Kumar Rustagi.
2. This is a proposal of Shiva Cement Limited for getting Amendment in existing Environment Clearance Letter No J-11015/47/2020-IA-II(M) dated 17.03.2022 granted by MoEF&CC in favor of Shiva Cement Limited for Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) with limestone production capacity of 1.6 million TPA at Villages Khatkurbahal & Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha w.r.t inclusion of minor mineral Dolomite (2.4 MTPA) for sale, installation of 600 TPH capacity crusher for Dolomite within ML area and permission for sale of limestone (up to 1.6 MTPA) in open market .
3. **Location and Connectivity** - The mine is situated near Villages- Khatkurbahal & Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha. The latitude is 22° 16'45.31025" N to 22° 17'10.12835" N and 84° 27'36.13496" E to 84° 29'18.22107" E. The project falls under Category "B" Project or Activity 1(a) – 4 for "Mining of Minerals" as per MoEF&CC, Govt. of India Notification as the Mining Lease Area is less than 250 ha.
4. M/s. Shiva Cement Limited has an existing Cement Plant with clinker production capacity 3.0 million TPA & Cement 2.0 million TPA at Village Telighana. Tehsil- Kutra, District Sundargarh, Odisha. Environment clearance has been obtained from MoEFCC vide File No J-11011/84/2008-IA.II (I) dated 23.03.2022. To meet the limestone requirement of cement plant, company has two mines:
 - Khatkurbahal Limestone & Dolomite Mine (ML Area- 72.439 ha) with Production Capacity 1.5 million TPA Near village – Khatkurbahal & Kulenbahal, Tehsil – Kutra, District –Sundergarh (Odisha). Environment Clearance for the same has been obtained from SEIAA, Odisha vide letter No 37895/62-MINB1/11-2021 dated 11.03.2022.
 - Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) with limestone production capacity of 1.6 million TPA at Villages Khatkurbahal & Phalsakhani, Tehsil Kutra, District

Sundergarh, Odisha. Environment clearance has been obtained from MoEFCC vide File No J-11015/47/2020-IA.II (I) dated 17.03.2022.

5. Project Proposal is for Amendment in Existing Environment Clearance vide Letter No J- 11015/47/2020-IA-II(M) dated 17.03.2022 granted by MoEFCC in favor of Shiva Cement Limited for Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) with limestone production capacity of 1.6 million TPA at Villages Khatkurbahal & Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha w.r.t inclusion of minor mineral Dolomite (2.4 MTPA) for sale, installation of 600 TPH Crusher for Dolomite and also permission for sale of limestone (upto 1.6 MTPA) in open market . Letter of Intent (LOI) as per Rule 10(2) of the Mineral (Auction) Rules, 2015 for grant of Mining Lease for Limestone was issued by the Government of Odisha in favor of M/s. Shiva Cement Limited for Khatkurbahal (North) Block Mine (ML Area 156.43 ha) vide letter no. 9010/S&M, Bhubaneswar dated 18.11.2019 and a corrigendum in LOI w.r.t area correction was issued on 14.02.2020. It may be noted that this auctioned mine is a merchant block with no end use condition. Environment Clearance has been granted by MoEF&CC vide letter No. J-1105/47/2020. IA. II (M) dated 17.03.2022 for Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) for total excavation of 5.543 million TPA [Limestone 1.6 MTPA and Mineral Reject 0.035 MTPA (ROM 1.635 million TPA), Top soil 0.033 million TPA and waste 3.875 million TPA (covering 2.42 million TPA of Dolomite as waste)]. Now, Shiva Cement Limited has a proposal to utilize Dolomite as a minor mineral for which Revised LOI has been issued with inclusion of Dolomite by the Department of Steel & Mines, Government of Odisha vide letter no 1216/S&M, (AE) (Exp.) SM-05/2021, Bhubaneswar dated 02.02.2021. With the utilization of Dolomite as a minor mineral for sale, there will be no change in proposed total excavation (i.e. 5.543 million TPA) as permitted in the existing Environment Clearance of the above mine. Approval of Modification in Mining Plan w.r.t inclusion of Dolomite has also been issued by the Ministry of Mines (IBM) vide letter no MPM/A/01/-OR/BHU/2021-22 dated 24.04.2021.
6. **Reason For Amendment:** Both Limestone and dolomite resources are considered for the valuation of resource in the Tender document of Khatkurbahal (N) block and both the minerals were taken into account for the calculation of upfront payments and performance security. Limestone resource is 49 Million MT whereas Dolomite resource is 76 Million MT which is ~ 1.5 times of limestone resource. However, without excavation of dolomite, limestone cannot be extracted as limestone is overlain by dolomite. The Avg sale price per ton of Limestone as on feb'2022 is INR 421.00 whereas the Avg sale price per ton of Dolomite as on Mar'2021 is INR 795.00. Considering the depth of limestone availability and its exploitation, the economic viability of the project is wholly dependent on the sale of dolomite. Dolomite mineral was inadvertently not mentioned in the initial Lol issued to Shiva Cement Ltd. Secondly, the District Survey Report (DSR) of Dolomite which is a pre-requisite for filing application for EC of minor minerals was also not available with the state govt. at the time of issue of Lol. Since the execution of our captive cement plant was already in progress, SCL had to apply for EC for Limestone only while considering the entire quantity of Dolomite, i.e. 2.4Million TPA as waste as suggested by the non-coal mining EAC, MoEF&CC. The environmental impact assessment of mining and stacking of 2.4 Million TPA dolomite (considered as waste) has already been carried out during the EIA studies. Now, District

Survey Report (DSR) of Dolomite has been issued by the District Collector on 28-02-2022, SCL has applied for amendment in the existing environment clearance (EC) w.r.t inclusion of minor mineral Dolomite, 2.4 million TPA for sale in open market without increasing the total excavation, i.e., 5.543 million TPA in order to utilize Dolomite (minor mineral) as a mineral which was earlier categorized as waste. 600 TPH crusher is also proposed for crushing of Dolomite within ML area. In addition, since this is a merchant mine with no end use restrictions. Company is also seeking amendment in the existing EC for grant of permission for sale of limestone (up to 1.6 MTPA) in open market.

7. The project proponent along with the consultant **M/s J.M. EnviroNet Pvt. Ltd., Gurugram-122011 (Haryana)** made a detailed presentation on the proposal on 03.08.2022.
8. The SEAC in its meeting held on dated 03-08-22 decided to take decision on the proposal after receipt of certain information / documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
i)	Copy of modified approved mining plan incorporating dolomite as a product and addition of 650 TPH Crusher.	Approval of modification of Mining Plan w.r.t inclusion of dolomite as a product and addition of 600 TPH Crusher granted by the Ministry of Mines (IBM) vide letter no MPM/A/01/-OR/BHU/2021-22 Dated 24.04.2021 is enclosed as Annexure-I .
ii)	Approval of the Steel and Mines Deptt., Govt. of Odisha for selling of dolomite as an Ore.	Revised LOI with inclusion of Dolomite from the Department of Steel & Mines, Government of Odisha, vide letter no 1216/S&M, (AE) (Exp.) SM-05/2021, Bhubaneswar dated 02.02.2021 is enclosed as Annexure II . It is pertinent to mention that this auction block is not reserved for any specific end use and as such, the successful bidder is free to use the mineral for captive use as well as sale to other end users. A copy of the document (Kindly refer S.No.3 of the "Response to Queries on Tender Document" by Directorate of Mines, Govt. of Odisha, dt. 05-09-2019) specifying the end use of the minerals (Limestone as well as Dolomite) is enclosed as Annexure-III .
iii)	Copy of EIA report prepared for grant of EC for 1.6 MTPA limestone and 2.4	Copy of the EIA report prepared and submitted to the MoEF&CC for grant of EC for 1.6 MTPA limestone and 2.4 MTPA

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	MTPA dolomite as waste.	dolomite as waste is enclosed as Annexure IV .
iv)	Detailed writeup as to why this will not be treated as a fresh case for grant of EC including conducting public hearing.	<p>As per EIA Notification dated 14.09.2006, prior Environment Clearance is required for the following projects:</p> <ol style="list-style-type: none"> 1. All new projects or activities listed in the schedule of the Notification. 2. Expansion and Modernization of existing projects or activities listed in the schedule to this notification with addition of capacity beyond the limits specified for the concerned sector that is projects or activities which cross the threshold limit given in the schedule after expansion or modernization. 3. Any change in product-mix in an existing manufacturing unit included in the schedule beyond the specified range. <p>In light of the above, the justification for not treating this proposal as a fresh case for grant of EC including conducting public hearing is given below:</p> <ol style="list-style-type: none"> 1. Said proposal is neither a new project nor an expansion/modernization and change in product mix. 2. Said proposal is for amendment in the existing Environment Clearance (Letter No J- 11015/47/2020-IA-II(M) dated 17.03.2022 granted by MoEF&CC) with inclusion of Dolomite as a product. Dolomite has already been covered in the original EC as waste. 3. There is no change in mining lease area (156.43 ha). 4. There is no change in Total excavation (5.543 million TPA). 5. There is no change in Mining Technology (Opencast Mechanized). 6. Comparison of the details of the previous EC vis-a-vis the amendments proposed are given below:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent		
		Particulars	Details as per existing EC	Details as per present proposal
		Mining Lease area (Ha)	156.43	156.43
		Mining Technology	Opencast Mechanized	Opencast Mechanized
		Limestone (Million TPA)	1.6	1.6
		Mineral Reject (Million TPA)	0.035	0.035
		Top Soil (Million TPA)	0.033	0.033
		Waste (Million TPA)	3.875 (Including 2.42 million Tonnes of Dolomite)	Waste: 1.455 Dolomite: 2.42
		Total Excavation (Million TPA)	5.543	5.543
		Proposed Limestone Crusher & Screen (TPH)	800	800
		Proposed	---	600

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent		
		Dolomite Crusher (TPH)		
		<p>7. Public hearing has already been conducted for the total excavation of 5.543 million TPA (Limestone production capacity 1.6 million TPA, Mineral Reject 0.035 million TPA, Top Soil 0.033 million TPA and Waste 3.875 million TPA) on 24.08.2021.</p> <p>8. The environmental impact assessment of mining and stacking of 2.4 million TPA dolomite (considered as waste) has already been carried out during the EIA studies of the existing EC.</p> <p>Detailed write-up as to why this will not be treated as a fresh case for grant of EC including conducting public hearing is enclosed as Annexure V.</p>		
v)	Kisam of the Land.	Kisam of the land is enclosed as Annexure VI .		
vi)	Open market Sale or Sales/ marketing of the product is beyond the scope of SEAC for EC and hence, be deleted from the application for EC.	<p>Earlier name of Proposal was mentioned as "Amendment in Existing Environment Clearance Letter No J-11015/47/2020-IA-II(M) dated 17.03.2022 granted by MoEF&CC in favor of Shiva Cement Limited for Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) with limestone production capacity of 1.6 million TPA at Villages Khatkurbahal & Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha w.r.t inclusion of minor mineral Dolomite (2.4 MTPA) and permission for sale of limestone (up to 1.6 MTPA) in open market along with captive utilization in cement plant" which has now been revised and may be read as –</p> <p>"Amendment in Existing Environment Clearance Letter No J-11015/47/2020-IA-</p>		

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		II(M) dated 17.03.2022 granted by MoEF&CC in favor of Shiva Cement Limited for Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) with limestone production capacity of 1.6 million TPA at Villages Khatkurbahal & Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha w.r.t inclusion of minor mineral Dolomite (2.4 MTPA) and permission for transportation of limestone (up to 1.6 MTPA) by road from mining lease to other 3rd party buyers.

9. The SEAC in its meeting held on dated 02-11-2022 recommended the following:

- a) Environmental Clearance issued vide No J-11015/47/2020-IA-II(M) dated 17.03.2022 by MoEF&CC, Govt. of India for Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) with limestone production capacity of 1.6 million TPA at Villages Khatkurbahal & Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha may be amended for inclusion of minor mineral Dolomite (2.4 MTPA) as ore and installation of 600 TPH capacity crusher for Dolomite within ML area.
- b) Following Additional conditions may be stipulated in Environmental Clearance:
 - i) Proper safety procedure shall be maintained while loading, unloading and transporting the ore to avoid pollution and maintain safety.
 - ii) Haulage road shall be developed and maintained perennially and perpetually by the proponent in consultation with the concerned authority of the Govt.
 - iii) CER related issues as per MoM of public hearing may be prescribed as special condition in EC.
 - iv) The mining authority shall assess the impact of blasting by carrying out a few trail blasts in the beginning through an institution/organization having the domain expertise and the optimum blasting parameters should be established in order to avoid any adverse impact.
 - v) As per EIA report in project description, Bench width, height and angle is indicated along with Quarry slope and the proponent shall follow it as per approved mining plan and so also blasting procedure.
 - vi) With regard to the public road and safety of commuters, the proponent must follow all the precautionary measures prescribed by DGMS including maintenance of a safety zone.

- vii) The approved mine plan for carrying out the proposed limestone mining should be revised to include mining of proposed dolomite ores as per the proposal.
10. The proposal was placed in the meeting of SEIAA held on 19.01.2023 for consideration of amendment in EC. The Authority deliberated on the matter and decided to referred back to SEAC for reconsideration of the proposal with the following observation:
- i) The extant proposal involves change of product mix by including dolomite as an “Ore” in place of “Waste”.
 - ii) The proposal also involves setting up of 600TPH crusher with consequent increase in pollution load.
 - iii) As per MoEF&CC, Gol OM F.No.IA.3-22/10/2022-IA.III (E 177258) dated 11.04.2022 capacity addition with change in product mix or increase in pollution load require revised EIA/EMP report. The SEAC may give their considered view whether there is requirement of fresh Public Consultation in light of MoEF& CC, OM dated 11.04.2022.
11. The DSR of dolomite mining in Sundargarh District has not been approved by SEIAA& SEAC as per Order dated 10.11.2021 of Hon’ble Supreme Court in CA No-3661-3662 of 2020 in the matter of the State of Bihar & Others Vrs Pawan Kumar & Others.
12. In regards to the Transportation of mineral by road, the EAC of Ministry in its 42nd meeting has warned the consultant for non-compliance of ToR & recommended the EC in its 46th meeting after submission of an Undertaking by PP dated 28.01.2022 that the “Environmental Clearance, if granted, will be functional only after installing the Over Land Belt Conveyor (OLBC) for Captive Consumption of Limestone.”
13. In view of this Suo-moto declaration, the Authority decided that the SEAC may re-examined the proposal in the light of MoEF & CC, Govt. of India OM dated 07.07.2021 for any violation. The proposal has referred back to SEAC through online for necessary action.

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

- i) The extant proposal involves change of product mix by including dolomite as an “Ore” in place of “Waste”.
- ii) The proposal also involves setting up of 600TPH crusher with consequent increase in pollution load.
- iii) As per MoEF&CC, Gol OM F.No.IA.3-22/10/2022-IA.III (E 177258) dated 11.04.2022 capacity addition with change in product mix or increase in pollution load require revised EIA/EMP report, whether there is requirement of fresh Public Consultation in light of MoEF& CC, OM dated 11.04.2022.
- iv) The DSR of dolomite mining in Sundargarh District has not been approved by SEIAA & SEAC.
- v) In regards to the Transportation of mineral by road, the EAC of Ministry in its 42nd meeting has warned the consultant for non-compliance of ToR & recommended

the EC in its 46th meeting after submission of an Undertaking by PP dated 28.01.2022 that the "Environmental Clearance, if granted, will be functional only after installing the Over Land Belt Conveyor (OLBC) for Captive Consumption of Limestone."

ITEM NO. 04

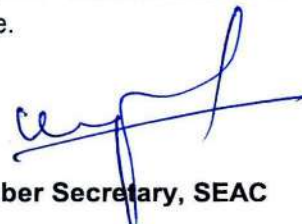
PROPOSAL FOR GRANT OF ENVIRONMENTAL CLEARANCE FOR BALIBARENI LATERITE STONE QUARRY OVER 8.50 AC OR 3.44 HA IN BALIBARENI VILLAGE UNDER BEGUNIA TAHASIL OF KHORDHA DISTRICT OF SRI RAJA KISHORE DASH - EC

1. The SEAC in its meeting dated 02.09.2022 recommended to grant EC valid from the date of EC accorded up to the lease period for the proposal with following additional conditions.
 - i) Consent / NoC shall be obtained from the concerned BDO if village road is to be used for transportation. The said road shall also be maintained by the lessee.
 - ii) In view of likely revision of DSR the mention of this deposit with final coordinates is to be ensured
 - iii) Plantation programme to be completed within first two years and to be maintained in remaining years.
 - iv) Depth of Mining as proposed should not be beyond 6m.
 - v) Mitigation measures for flying Rock for safety be in place.
2. The proposal was placed in the meeting of SEIAA held on 13.12.2022 for consideration of EC. The Authority deliberated on the matter and observed the following:

"The Tahasildar, Begunia vide letter no. 2025 dated 28.07.2022 has clarified that there were some illegal excavations earlier for which an amount of Rs. 13,41,000/- has been collected as penalty/royalty. Since it is a violation case after detailed deliberations, the Authority decided to referred back the proposal to SEAC for consideration of issue of ToR, if any, as per Step-3 (Page no. 06) of the OM no. F No. 22-21/2020-IA.III dated 07.07.2021."
3. In view of this Suo-moto declaration, the Authority decided that the SEAC may re-examined the proposal in the light of MoEF & CC, Govt. of India OM dated 07.07.2021 for any violation. The proposal has referred back to SEAC through online.

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

- (i) The Tahasildar, Begunia vide letter no. 2025 dated 28.07.2022 has clarified that there were some illegal excavations earlier for which an amount of Rs. 13,41,000/- has been collected as penalty/royalty. Justify why this will not be treated as violation case.


Member Secretary, SEAC

ANNEXURE-A

STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR PROPOSED 1,00,000 TPA GREEN FIELD COAL TAR DISTILLATION PLANT OF VCI CHEMICAL INDUSTRIES PVT. LTD OVER AN AREA 22.00 ACRES AT VILLAGE – JAKHAPURA & KACHHARIGAON, TEHSIL - DANAGADI, DISTRICT - JAJPUR OF SRI SHUBHAM GUPTA – TOR

1) **Executive Summary**

2) **Introduction**

- i. Details of the EIA Consultant including NABET accreditation
- ii. Information about the project proponent
- iii. Importance and benefits of the project

3) **Project Description**

- i. Cost of project and time of completion.
- ii. Products with capacities for the proposed project.
- iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
- iv. List of raw materials required and their source along with mode of transportation.
- v. Other chemicals and materials required with quantities and storage capacities
- vi. Details of Emission, effluents, hazardous waste generation and their management.
- vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
- viii. Process description along with major equipments and machineries, process flow sheet (quantative) from raw material to products to be provided
- ix. Hazard identification and details of proposed safety systems.
- x. **Expansion/modernization proposals:**
 - a) Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing / existing operation of the project from SPCB shall be attached with the EIA-EMP report.
 - b) In case the existing project has not obtained environmental clearance, reasons

for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification, 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4) Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification
for selecting the site, whether other sites were considered.
- ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
- iii. Details w.r.t. option analysis for selection of site
- iv. Co-ordinates (lat-long) of all four corners of the site.
- v. Google map-Earth downloaded of the project site.
- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. Landuse break-up of total land of the project site (identified and acquired), government/ private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
- ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
- x. Geological features and Geo-hydrological status of the study area shall be included.
- xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
- xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xiii. R&R details in respect of land in line with state Government policy

5) Forest and wildlife related issues (if applicable):

- i. Permission and approval for the use of forest land (forestry clearance), if any, and

recommendations of the State Forest Department. (if applicable)

- ii. Land use map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (in case of projects involving forest land more than 40 ha)
- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-a-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

6) **Environmental Status**

- i. Determination of atmospheric inversion level at the project site and site-specific micro- meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM₁₀, PM_{2.5}, SO₂, NO_x, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQPM Notification of Nov. 2009 along with - min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule- I fauna are found within the study area, a Wildlife Conservation Plan

shall be prepared and furnished.

- xi. Socio-economic status of the study area.

7) **Impact and Environment Management Plan**

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling - in case of discharge in water body.
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor- cum-rall transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control
- vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control

measures shall be included.

- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8) **Occupational health**

- i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre-placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above-mentioned parameters as per age, sex, duration of exposure and department wise.
- iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
- iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

9) **Corporate Environment Policy**

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
- ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
- iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
- iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

- 10) Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

11) **Enterprise Social Commitment (ESC)**

- i) Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the

Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.

- 12) Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
- 13) A tabular chart with index for point wise compliance of above TOR.
- 14) **The prescribed TOR would be valid for a period of four years for submission of the EIA/EMP report.**