PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE, ODISHA HELD ON 15th MARCH, 2022

The SEAC met on 15th March, 2022 through video conferencing in Google Meet under the Chairmanship of Sri. B.P. Singh. The following members were present in the meeting.

1.	Sri. B. P. Singh	-	Chairman
2.	Dr. K. Murugesan	-	Secretary
3.	Dr. D. Swain	-	Member
4.	Prof. (Dr.) P.K. Mohanty	-	Member
5.	Prof. (Dr.) H.B. Sahu	-	Member
6.	Sri. J. K. Mahapatra	-	Member
7.	Sri. K. R. Acharya	-	Member
8.	Prof. (Dr.) B.K. Satpathy	-	Member
9.	Dr. K.C.S Panigrahi	-	Member
10.	Dr. Sailabala Padhi	-	Member

CONSIDERATION OF OLD PROPOSALS (COMPLIANCE RECEIVED):

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

ITEM NO. 01

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S FERRO ALLOYS CORPORATION LTD FOR EXPANSION OF OSTAPAL CHROMITE MINE (ML AREA: 72.843 HA) FOR INCREASE IN PRODUCTION FROM 0.2 MTPA TO 0.240 MTPA CHROMITE ORE (ROM) WITH MAXIMUM EXCAVATION OF 0.579 MILLION CUM PER ANNUM AND BENEFICIATED CHROME ORE OF 0.1 MTPA AT VILLAGE- GURUJANGA, TAHASIL SUKINDA, DISTRICT JAJPUR OF SRI SANDEEP KITTANA ACHARYA – EC

1. The mining lease over 72.843 Ha, which comes under the part of Daitari Protected Forest and Village Gurujanga, was granted to M/s FERRO ALLOYS CORPORATION LIMITED ("FACOR") on 13/08/1985 for 20 years i.e., from 13/08/1985 to 12/08/2005. The lease was expired on 12/08/2005, but it has continued to conduct the mining operations in the said lease under the deemed extension provisions of section 8 of the MMDRA, 1957 with Rule-24-A(6) of the MCR, 1960 till 21/08/2016. As per the MMDR amendment Ordinance, 2015 under sec. 8A, the lease period has been deemed to be extended for a period of fifty years i.e., from 13/08/1985 to 12/08/2035. The supplementary Lease Deed has been executed on 22/08/2016. Thereafter, Hon'ble NCLT Cuttack Bench under the provisions of Insolvency and Bankruptcy Code (IBC)-2016 vide its order dt. 30.01.2020, has approved the resolution plan of M/s Sterlite Power Transmission Limited (Vedanta Ltd.). Pursuant to the said order with of NCLT Cuttack, the Board of Directors of M/s. FERRO ALLOYS CORPORATION LTD. have been changed with effective from dt. 21.09.2020. Consequently, the Board of Directors have appointed the nominated owner of the company vide its resolution dt. 27.09.2020, in accordance with the statutory provisions.
2. The current project involves mining of Chrome Ore (Chromite) through a Fully Mechanized Opencast mining method using HEMM and Deep Hole Blasting. The proposal is for increasing the production from 0.20 MTPA to 0.240 MTPA of Chromite Ore (ROM) with maximum

excavation of 0.579 Million Cubic Meters per Annum. Total area under mining lease is 72.843 Ha. There is an existing 0.1 MTPA Chrome Ore beneficiation plant within the mine lease area. The area consists of 68.424 Ha forest land as per Sabik settlement records. Estimated capital cost is 88.85 Crores.

3. The project falls under schedule "1(a), (i) Mining of Minerals" of EIA notification 2006 and is a category 'B' project.
4. Total Geological Reserves of Chromite Ore as on 01.10.2020 are estimated to be 10.128 Million tonnes. Of these, Mineable reserves have been assessed to be 4.389 Million tonnes.
5. Based on the present reserve estimates and proposed production program, the life of mine is estimated to be about 11 years.
6. Fully mechanized Opencast mining is proposed to be carried out during the plan period. The operations like digging, excavation and removal of ore in conjunction with deep hole drilling and blasting will be done with the help of heavy earth moving machineries. Controlled blasting will be adopted for excavation of chromite ore.
7. Mining has already intersected ground water table of the area. The estimated total manpower requirement for the mining project is about 536 persons.
8. Water will be required in large amounts for the mining operation, dust suppression, plantation, workshop, Wheel washing system, Ore processing in COB plant, vehicle wash, domestic needs, environmental management etc. Total water withdrawal from the Ostapal Mine is estimated to be about avg. 3400 KLD. Permission from Central Ground Water Authority (CGWA) vide Letter No. CGWA/NOC/MIN/REN/1/2021/6481 for withdrawal of ground water of 100 KLD through two existing bore wells and 3300 KLD through dewatering mine seepage from mine pit.
9. The use of electricity will be for lighting/ illumination/ pumping purposes in mining operations and will be obtained from GRIDCO. The electricity/DG power will be provided at the office, camp, and mines. The contract demand is 600 KVA and the total connected load is about 894 HP.
10. A total of about 536 persons will be required to carry out the opencast mining operation.
11. No R&R is proposed for the project.
12. The SEAC in its meeting held on 05.01.2022 recommended that conducting public hearing for the proposal may be exempted under clause 7(ii) of EIA Notification, 2006 and amendment thereafter as there will be no increase in pollution load due to mere 20% increase in production capacity and in similar situation EAC of MoEF&CC, Govt. of India has exempted for conducting public hearing many such mines. Accordingly, the SEIAA, Odisha has issued ToRs for EIA study vide letter no. 3883/SEIAA, dated 28.01.2022 exempting public hearing as recommended by the SEAC, Odisha.
13. The Environment consultant **M/s Visiontek Consultancy Services Pvt Ltd, Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee on 18.02.2022.

14. The SEAC in its meeting held on dated 18.02.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent. The project 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)	List of additional equipment's to be used for expansion and thereby how it reduces pollution load along with technical explanation of how the pollution load with regard to OB, Water consumption etc are reduced in spite of capacity enhancement.	There is no addition of equipment, only the replacement & reduction in number of equipment by using of latest model & higher productive equipment. List of equipment to be used for expansion is attached as **Annexure: 1.** Initiatives taken to reduce the pollution load although increasing in production capacity is attached as **Annexure No.-2.** Initiative taken to reduce the water consumption and water balance sheet is attached as **Annexure No.-3.**
ii)	Details of technology will be used /upgraded for expansion to reduce pollution load in plant in comparison to existing process in plant.	Capacity of the Existing process plant is not increasing. It is same 0.1MTPA as earlier.
iii)	Procedure for periodically analysis and monitoring of effluent, tailing pond outlet, nearby water bodies and soil for various parameters with special reference to hexavalent chromium at outlet of ETP and tailing pond etc.	Effluents water is being monitored on real-time basis which is being connected with OSPCB server also. Further, one NABL Lab has also been engaged to Monitor the Effluent water quality. ETP Discharge water analysis report by NABL Lab. Is attached as **Annexure No.-4.** Online Water Monitoring results of ETP discharge for last 3 months are attached as **Annexure No.-4.** All the water generated form tailing pond is being recycled for processing of Chrome ore inside the mines. There is no effluent discharged from Tailing Pond. Nearby water bodies "Damasalla Nallah" is being monitored through a NABL Laboratory quarterly basis & report also submitted to the Board. Monitoring report is enclosed as **Annexure No.-5** Soil for Various parameter with reference to Hexavalent is also being analysed quarterly. Report enclosed as **Annexure No.-6.**
iv)	Analysis of hexavalent chromium on soil, ground water of unit existing and future expansion.	Soil Analysis Report attached as **Annexure No.-6.** Analysis Report of Ground water Quality of existing unit is attached as **Annexure No.-7.**
v)	Present and proposed quantity of discharge of treated water to Damsala nallah and chemical analysis of hexavalent chromium of the Damsala nallah water.	Present discharge of treated water quantity is around 1950 Cub Mt/day. During the proposed expansion period around 3300 Cub Mt /day (Max.) treated water is likely to be discharged in day. Damasalla Nallah" water is being monitored through a NABL Laboratory. Monitoring report is enclosed as **Annexure No.- 5.**
vi)	Brief write up why proposing for expansion when remaining	Brief write-up is enclosed as **Annexure No.-8.**

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	mineable reserve can be extracted within existing production limit.	
vii)	Under consultation with District Administration one pipe supply to at least one village should be covered.	Undertaking letter for supplying of drinking water through pipeline to the nearby villagers is attached as **Annexure No.-9**.
viii)	Calculation part how pollution load decreasing item wise.	Details have been attached as **Annexure No.-10.**
ix)	Quantity and quality of mine drainage water for existing and proposed expansion and a detailed plan for utilization of mine drainage water	Quality of the mine drainage water is being monitored on real-time basis & also monitored through NABL Lab. Mine drainage water is being used only after treatment through ETP for various industrial use. The quantity of inlet water & the water utilised for various industrial uses & detail plan for utilization is mentioned in **Annexure No.-11.**
x)	Copy of compliance report submitted to RO with certification, comments of RO received	Details have been attached as **Annexure No.-12**.
xi)	Explore implementation of membrane based technology for removing hexavalent chromium.	We have engaged NIT, Rourkela for the purpose of reduction of Hexavalent Chromium from tailing pond, Surface run off & mine drainage. R & D is still going on to implement Geo-sorbents & algal Bio-refinery technology for the purpose. It will take 5 to 6 months to complete the project. As per the recommendations, Geomembrane technology shall also be included in this R & D Project.
xii)	How much Quarry Water is being discharged to Damsala Nala at present and proposed projected to be discharged on expansion? Where this water is being/ will be treated and the chemical analysis before treatment and while discharging to Nala after treatment?	Present discharge of treated water quantity is around 1950 Cub Mt/day. During the proposed expansion period around 3300 Cub Mt /day (Max.) treated water is likely to be discharged in day. The water is being treated before discharged. Quality of the water is being analysed before treatment & after treatment. Analysis report is enclosed as **Annexure No.:-4.**
xiii)	When it is stated to have no increase, rather decrease in pollution load due to expansion, why the capacity of Tailing Pond & ETP are proposed to be increased?	Capacity of the Existing process plant is not increasing. Hence, there is no expansion plan for Tailing Pond. ETP capacity is increased looking into the heavy rainfall & cyclonic situation. To treat the surface runoff water in the time of heavy rainfall, the capacity of the ETP has been increased.
xiv)	The present and proposed capacity of Tailing Pond and ETP be submitted.	Present tailing pond capacity is 41025 Cub Mt. There is no proposal to increasing the tailing pond capacity as there is no proposal to increase the

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		COB production capacity. ETP Capacity is already increased up to 600 Cub Mt/Hr. There is no further proposal to increase the ETP capacity.
xv)	What is the Technology up gradation that has helped in reduction of Pollution load and positive effect on environmental parameters despite increase in production capacity?	Initiatives taken to reduce the pollution load is attached as **Annexure No.-2.**
xvi)	What specific measures taken to reduce the Hexavalent Chromium in soil and water? What is the present level and corresponding expected reduction?	We have engaged NIT, Rourkela for the purpose of reduction of Hexavalent Chromium from tailing pond, Surface run off & mine drainage. R & D is still going on to implement Geo-sorbents & algal Bio-refinery technology for the purpose. It will take 5 to 6 months to complete the project. As per the recommendations, Geomembrane technology shall also be included in this R & D Project. Details has been included in **Annexure 13**.
xvii)	Summary of the study of NIT Rourkela, their findings and specific recommendations be submitted precisely.	It will take 5 to 6 months to complete the R & D project. After completion of the project, the study report will be submitted accordingly.
xviii)	**Since, m**ining has already intersected ground water table, the steps proposed for augmentation of ground water resources. The management of surface runoff during monsoon along with rainwater harvesting needs to be specified.	Upgradation of ETP to 600 KL capacity. Settling pond will be de-silted regularly. Garland drains have been installed and same will be maintained to further support recharge. Rooftop rainwater and surface runoff will be stored in 2 pits of 23625 Cum and 4200 Cum respectively.
xix)	A site visit to be planned in 6 months' time to ensure implementation of agreed measures.	Site visit with MoEF RO will be planned accordingly.

Considering the information furnished and the presentation made by the consultant **M/s Visiontek Consultancy Services Pvt Ltd, Bhubaneswar** along with the project proponent, the SEAC recommended for grant of Environmental Clearance with stipulated conditions as per **Annexure – A** and following specific conditions**.**

i) The mine shall explore implementation of membrane-based technology for removing Hexavalent Chromium from tailing pond, Surface run off & mine drainage water.

ii) The mine shall submit copy of the letter to NIT, Rourkela and their response thereof engaging them for the purpose of reduction of Hexavalent Chromium from Tailinng pond, surface run off, and mine drainage to SEIAA before issue of EC.

iii) The mine shall submit copy of study report conducted by NIT, Rourkela for the purpose of reduction of Hexavalent Chromium from tailing pond, Surface run off & mine drainage water once study is over and implement the recommendations of the study.

iv) Since, mining has already intersected the ground water table; the steps proposed for augmentation of ground water resources are not adequate. The project proponent shall put adequate number of recharge pits beyond the zone of influence based on a detailed hydro-geological study.

v) The mine shall take adequate measures to minimize the discharge of waste water to Damsala nallah.

vi) **All the compliances submitted/ committed by PP (s) shall be strictly adhered to by them.**

vii) The Sub-Committee of SEAC will visit the site within 6 months from the date of issue of Environmental Clearance to ensure implementation of agreed measures. However, either during the visit of the SEAC Sub-committee and/or at any time, if it is noticed that stipulated conditions on which EC is granted is not in place or found otherwise, steps will be taken for revocation of EC granted.

ITEM NO. 02

PROPOSAL FOR ENVIRONMENT CLEARANCE OF M/S ASSOTECH SUN GROWTH ABODE LLP FOR CONSTRUCTION OF MULTISTORIED RESIDENTIAL BUILDING "ASSOTECH PRIDE PHASE-1 EXTENSION" OVER PLOT AREA - 65383.16 SQM. LOCATED AT MOUZA-RUDRAPUR, BHUBANESWAR, DIST-KHURDA, ODISHA OF SRI. SASHANKA SHEKHAR ROUT (VICE PRESIDENT) (TOTAL BUIT UP AREA – 3,50,733.31SQM.) – EC

1. M/s Assotech Sun Growth Abode LLP (LLP Identification Number is (LLPIN) AAA-8036) is an Assotech Group company, which is the developer of this project. The Assotech Group was formed in the year 1986 and during the last 35 years the group has delivered projects in UP (Noida, Greater Noida, Ghaziabad), Haryana, (Gurugram & Faridabad) in Delhi NCR, Uttrakhand (Rudrapur-Nainital), Madhya Pradesh (Gwalior) and Odisha (Bhubaneswar). It has delivered over 45 projects comprising of over 40,000 residential apartments, shopping units and industrials project.
2. Currently the Assotech Group is developing affordable housing projects in Jharkhand (Ranchi) comprising of over 2500 apartments in four phases. It also proposes to develop similar project in Bhubaneswar located at Plot No. 274, NH-16, Rudrapur, Bhubaneswar.
3. It is also developing mid-segment housing project in Gurugram, Noida and Ghaziabad. These Projects nearing completion. Assotech Group has successfully completed 840 apartments housing complex "COSMOPOLIS" at Khandagiri, Dumduma, Bhubaneswar.
4. M/s Assotech Sun Growth Abode LLP. has Proposed Multistoried Residential Building "Assotech Pride Phase-1 Extension" over Plot No. - 274/9190, 276, 277/856, 277/8893, 279/10152, 279 & others Khata No: 412/1079, 412/1349 & others of Mouza-Rudrapur, PS-Balianta, Tehsil-Bhubaneswar, Dist-Khurda, Odisha. The Environment Clearance for existing building is already obtained from State Environment Impact Assessment Authority vide letter no. 7484/SEIAA, dated 06.11.2019 and Consent to Establish is obtained from State Pollution Control Board vide letter no. 693/IND-II-CTE-6353, dated 21.01.2020.
5. The Geographical co-ordinate of the project site is: Latitude –20^0 19' 40.2" to 20^0 19' 37.7" N & Longitude - 85° 53' 08.4"to 85° 53' 05.2" E. The project site is well connected with National Highway NH-16at a distance of approx 0.2 Km in West direction. The nearest railway station is Mancheswar Railway station at a distance of approx 4.24 Km in West direction& Bhubaneswar Railway Station at a distance 8.9 Km in South-west direction. The nearest airport is Biju Patnaik Airport at a distance of approx. 10.8 Km in South-west direction from project site.
6. The maximum temperature is about 36.0^o C and the minimum temperature is 16.0^o C felt in the area. The average annual rainfall in the area is 1326.16 mm.

7. **The building details of the project are given below:**

Particular	Existing	Proposed	Total
Project Name	**Assotech Pride, PH-1 EXTENSION**		
Net Plot Area	52825.37 sqm (13.050 Acre)	14433.63 sqm (3.566 Acres)	67259.00 sqm (16.615 Acres)
Ground Coverage	23387.05sqm	15556.05 sqm	38943.10 sqm
FAR (Floor Area Ratio)	118843.72 sqm	166782.00 sqm	285625.72 sqm
Built up Area	136017.28 sqm	214716.03 sqm	350733.31 sqm
Maximum Height	45 m	130 m	130 m
Road Area	10506.06 sqm	9333.94 sqm	19840.00 sqm
Podium/Basement Parking	22015.70 sqm	43940.59 sqm	65956.29 sqm
Open Surface Parking	5500.00 sqm	146.72 sqm	5646.72 sqm
Total Parking Area	**27515.70 sqm**	**44087.31 sqm**	**71603.01 sqm**
Green Belt Area	23847.39 sqm (45.14 %)	-231.39 sqm	23616.00 sqm (35.11%)
Power/Electricity Requirement & Sources	Total - 4232 KW (4702 KVA) Solar - 455 KW (506 KVA) CESU - 3777 KW (4196 KVA)	Total - 2758 KVA Solar - 54 KVA TPOCDL - 2704 KVA	Total - 7460 KVA Solar - 560 KVA TPCODL – 6900 KVA
Capacity of DG sets	1500 KVA	4500 KVA	6000 KVA
Water requirement	551.4 KLD (Fresh)	241.4 KLD	792.8 KLD
Sewage Treatment Plant	750 KLD	300 KLD	1050 KLD
Estimated Population-Residential, Commercial, Floating/visitors	5930 nos.	2830 nos.	8760 nos.

8. The daily power requirement for the proposed complex is preliminarily assessed as **7460 KVA** (Solar System- 560 KVA&TPCODL – 6900 KVA). In order to meet emergency power requirements during the grid failure, there is provision of 6 nos. of DG set having total capacity 6000 KVA for power back up in the Residential Building Project.
9. For energy conservation, Roof Top Solar Power plant for captive power Generation = 12x 38KW = 560 kVA, Total Energy Conservation = 7460 KVA, Total Energy saving = 560/7460 = 8 %.
10. Fresh make up of 792.8 m^3/day will be required for the project which will be sourced from Ground water. Waste water of 1017 KLD will be treated in a STP of 1050 KLD capacity, which includes primary, secondary and tertiary treatment. After treatment the treated water will be discharge to the Prachi Drain.
11. Rain Water will be harvested through 23 nos. of recharging pits.
12. Firefighting system will be installed as per recommendation of the Firefighting Officer, Odisha and as per the guideline of NBC (part-4).
13. Green belt will be developed over an area of 23616.0 sqm which is 35.11% of the plot area; by using the local species like Casia Fistula, Conocarpus, Agave, Amla, Mango, Water Apple, Royal Palm, etc.

14. 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 3942 kg/day. The generated solid waste from the residential complex will be segregated as biodegradable and non-biodegradable. This will be collected in separate-coloured beans. Proper waste management practices will be adopted during the collection, storing and disposal of the generated solid waste.

15. Solid waste from sweeping and Dry Garbage containing non-biodegradable wastes like polythene bags, metal, ceramic Waste, glass etc. shall be stored in separate garbage bin and send to approved recyclers. Around 140 kg/day of STP sludge will be generated.

S. No.	Category	Counts (heads)	Waste generated (kg/day)
i)	Residents	8760 @ 0.45 kg/day	3942.0
ii)	Floating Population	876 @ 0.15 kg/day	131.4
iii)	STP sludge		140.0
TOTAL SOLID WASTE GENERATED			**4213.4 kg/day**

16. Total Capital Cost = ` 624 Crores

17. Environment Management Cost = ` 2.62 Crores

18. The Environment consultant **M/s Centre for Envotech & Management Consultancy Pvt. Ltd., N-5/305, IRC Village, Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee on 04.02.2022.

19. The SEAC in its meeting held on dated 04.02.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent followed by site visit by the Sub-Committee of SEAC to the proposed site. The project 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)	Provisions of solar power (8%) of total power demand in stated to have been made. Details of plan and consumption calculation vis-s-vis the generation of the same be submitted.	Total power generation from solar system is 565 KVA. Total power demand of the Project is 7460 KVA. So total solar power generation from the proposed Project is 7.57% of total power demand. Details solar calculation is attached in **Annexure-1**.
ii)	Layout of internal drains in project with connection to existing drains.	The Layout Plan showing internal drain line of the building with connected to existing drain is attached in **Annexure-2**.
iii)	Permission from BMC and Highway authority (if the drain is immediately connecting to adjacent highway drain) for discharge of treated water.	The nearest drain to the proposed project site is Prachi Nala which is adjacent to the project site. The drainage plan has been approved by Bhubaneswar Municipal Corporation (BMC) vide letter no. 24923, dated 10.09.2019. BMC drainage approval letter is attached in **Annexure-3**.
iv)	Layout drawing showing separate parking for commercial, residential and floating population with separate entry and exits for the	The layout plan showing separate parking for Residential and Floating population with separate entry and exits is attached in **Annexure-4**.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	same.	
v)	Traffic study report and fire clearance	The traffic density report has been vetted by Indian Institute of Technology (IIT) Bhubaneswar. Traffic study report is attached in Annexure-5 and Fire Clearance recommended letter is attached in **Annexure -6**.

After detailed discussion, the SEAC decided to take decision on the proposal after the site visit by the sub-committee of SEAC.

ITEM NO. 03

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S PARAMITRA SMART INFRA SNA PRIVATE LTD. FOR MODIFICATION AND EXPANSION OF PROPOSED "SHANTI NAGAR AWAS YOJNA" [PRIVATE DEVELOPER PROJECT] LOCATED AT MOUZA-SATYA NAGAR, PLOT NO. -121'125'126'128'129'130&143(P), THANA-NEW CAPITAL BHUBANESWAR, DISTRICT -KHORDHA, ODISHA OF SRI SHYAM SUNDAR PADHY – EC.

1. **M/s Paramitra Smart Infra SNA Private Ltd.** is coming with Environmental Clearance for Expansion and Modification and of proposed **"SHANTI NAGAR AWAS YOJNA"** [Private Developer Project] At mouza- Satya nagar, plot no. -143(P), Thana-New Capital Bhubaneswar, District -Khordha, Odisha of - M/s Paramitra Smart Infra SNA Private Ltd.
2. Shantipalli slum is located on the land belonging to the General Administration (GA) department. Government of Odisha has decided that BDA, which is also the State Level Nodal Agency, shall implement the in-situ redevelopment project of Santipalli slum. Accordingly, the land (on which the cluster is situated) is being transferred to BDA. There will be permanent change in land use pattern as mostly GA land will be used for construction of private development based on the market dynamics and development guidelines.
3. Paramitra Smart Infra SNA Private Limited is developing the site in partnership with Bhubaneswar Development Authority (PPP Mode). The project (PPP) guidelines stipulate 7.797 acres land area allocation for EWS Housing, while remaining 2.1 acres land will be utilized for private development based on the market dynamics and development guidelines. Proposed area is coming under Wholesale Commercial Use Zone as per CDP.
4. Land has been acquired for residential - development under an In-Situ slum Redevelopment Project. The land will be used for construction of Residential complex with club. There will be permanent change in land use pattern, as mostly land will be used for construction of Residential Complex with Retail & Club. Total land acquired for this project is 8498.7 sqm 2.10 Ac. Proposed Total Built up Area is **119108.29 sqm [Existing 49927.11 sqm. to proposed 119108.29 sqm]**
5. The proposed expansion project will have a total building foot-print of 3111.84 sqm (36.62% of the total plot area & (existing ground coverage 1912.37 SQM. (22.5%) Total green area proposed 3438.57 sqm (40.46 % of total area (exclusive plantation area 1755.83 sq.m. (20.66 %) and lawn area 1682.74 sqm (19.80%) of the plot area)
6. The Geographical coordinates of the project site is 20°17'7.54"N & - 85°51'2.19"E. The nearest airport is Biju Pattanaik Airport which is 5.4 km away from the project site towards S-S-W

direction. Bhubaneswar railway station is 2.36 km away from the project site towards SSW direction. Banivihar railway station is 0.8 km away from the project site towards N-N-E direction. (aerial distance). Maharshi College Road is adjacent To Project Site at the distance of 0.70 km in E direction. NH-203 (Cuttack-Puri Road) at the distance of 0.95 km in NW direction.

7. The total water requirement is approx. 356 KLD (domestic + flushing), out of which total domestic water requirement for residential and shops are 244 KLD & flushing water is 112 KLD. The total fresh water requirement is approx. 244 KLD on Daily Basis. The wastewater will be treated up to tertiary level in one STP of 350 KLD capacity provided within the complex generating 260 KLD of recoverable treated waste water from STP which will be recycled within the project sit and excess treated waste water will be discharge to existing municipal drain.
8. The power supply shall be supplied by TPCODL. The maximum demand load is estimated at 3658KW There is provision of Power backup for the residential project will be through DG sets of total capacity -1x2000 KVA & 1X1500 KVA silent DG Set.
9. Solid waste generation will be approximately 970 KG/DAY which will be supplied to Bhubaneswar Municipality for further disposal. Recyclable and non-recyclable wastes will be disposed through Govt. approved agency. Hence, the Municipal Solid Waste Management will be conducted as per the guidelines of Solid Wastes Management Rules, 2016.
10. During the operational stage, operation of Standby DG Sets and Vehicular Movements are main source for air pollution. Low sulfur diesel oil (LDO or HSD) will be used in DG sets. Water will be sprinkled to suppress dust, while cleaning and sweeping the roads and pavements. Proper traffic management and provision of acoustic enclosure for silent type DG sets will control noise level. Plantation along the peripheral boundary walls will also act as acoustic screen or vegetative barrier against the propagation of noise and pollutants.
11. Total project cost is ` 153.84 Cr
12. The Environment consultant **M/s Visiontek Consultancy Services Pvt. Ltd. Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee on 04.02.2022.
13. The SEAC in its meeting held on dated 04.02.2022 decided to take decision on the proposal after receipt of the Certain information / documents from the proponent followed by site visit of the sub-committee of SEAC. The project 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)	Land document with kissam of the land (Sabik and Hal).	The plot no.143 (P) which is comes under the proposed project area already been approved by the Bhubaneswar Development Authority and SEIAA in previous EC Letter no.6389/SEIAA. Paramitra Smart Infra SNA Private Limited is developing the site in partnership with Bhubaneswar Development Authority (PPP Mode). The project (PPP) guideline stipulated a total of 7.797 acres land area allocation out of which 4.146 acres for EWS Housing, 1.551 acre for road widening & remaining 2.1 acres land will be utilized for private development based on the market dynamics and development guidelines. Proposed area is coming under Wholesale Commercial Use Zone as per CDP.

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th></tr>
<tr><td></td><td></td><td>Shantipalli slum is located on the land belonging to he General Administration (GA) department. Government of Odisha has decided that BDA, which is also the State Level Nodal Agency, shall implement the in-situ redevelopment project of Santipalli slum. Accordingly, the land (on which the cluster is situated) is being transferred to BDA. There are mostly GA land will be used for construction of private development based on the market dynamics and development guidelines.
Attached as Annexure -1.</td></tr>
<tr><td>ii)</td><td>Layout of internal drains / sewer along with ownership of the land / ROW since the same need to be in favour of PP.</td><td>We will treat the waste water of the residential colony in well-designed sewage treatment plant having capacity of 350 KLD (MBBR Type). Excess Treated Water Discharge to Municipal Sewer -14 KLD (during Dry Season) & 54 KLD (during Monsoon Season).
The entire common sewage network running all over the project site will handle the sewage from all the units within and is to be setup using 150mm diameter Stoneware pipes/ HDPE pipes. The estimated waste water effluent for treatment within the project site to handle the load. The effluent network shall connect all the units of the project through 150mm diameter HDPE pipes. The pipelines have been designed keeping in mind the requirement per the National Building Code and to operate on natural gravitational flow under the effect of the gradient of 6M difference available within the site. They are of sufficient capacity to handle the sewage / effluent within the project site.
54KLD of treated water from STP, in excess post utilization during monsoon season, shall be connected to Public Sewerage System with the necessary permission from concerned authority. Permission of Bhubaneswar Municipality Corporation is attached as Annexure-2.
The proposed pipeline network, along the Master Plan, and cross-section of pipeline is enclosed here with as Annexure-2A.</td></tr>
<tr><td>iii)</td><td>Permission of the authority of the drain / sewer to take the addl. load of this proposed project including the scheduled operation of the sewer system.</td><td>Permission of Bhubaneswar Municipality Corporation is attached as Annexure -2.
Only 54KLD of treated water from STP, in excess post utilization during monsoon season, shall be connected to Public sewearge System with the necessary permission from concerned authority. The municipal drain exists adjacent to the project site in North direction of proposed project site. The existing municipal drain is adeqate to take the extra load of 54 KLD which dischrgae only during the rainy season.
permission of Bhubaneswar Municipality Corporation is attached as Annexure-2.</td></tr>
<tr><td>iv)</td><td>Parking in terms of space and ECS for 4 wheelers, 2 wheelers including bicycles be calculated separately for dwellers & visitors (floating population) indicating the</td><td>
<table>
<tr><th>SL No.</th><th>Name of Area</th><th>Area in Sqm</th><th>No. of ECS for 4 Wheerlers @ 32 sqm and 2 wheelers @ 12 sqm (As per NBC)</th></tr>
<tr><td>1</td><td>Parking provided in Basement</td><td>6011.55</td><td>188 nos- for Dwellers</td></tr>
</table>
</td></tr>
</table>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent				
	norm as well and showing it in the layout map & be submitted.		-1			
		2	Parking provided in Basement -2	6476.62	202 nos- for Dwellers	
		3	Parking provided in Basement -3	6696.92=4132+2565(10% for visitors parking)	Dwellers	65 no. of ECS for 4 Wheelers 172 Nos of parking for 2 wheelers
					visitors	40 no. of ECS for 4 Wheelers 107 Nos of parking for 2 wheelers
		4	Parking provided in Basement -4	6425.92=3861+2565(10% for visitors parking)	Dwellers	60 no. of ECS for 4 Wheelers 161 Nos of parking for 2 wheelers
					visitors	40 no. of ECS for 4 Wheelers 107 Nos of parking for 2 wheelers
		5	Surface parking	36.00		Parking for differently abled
			Total	2567.01 sqm	Dwelers	Visitors
					4 Wheelers -515 nos. 2	4 Wheelers-80 nos. 2

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td></td><td></td><td></td><td>Wheelers -333 nos.</td><td>Wheelers-214 nos.</td></tr>
</table>
Total parking area required 30% of built up area=23883.sqm
Total parking area provided = 25674.01 sqm
Parking and traffic layout plan is attached as Annexure-3.
</td></tr>
<tr><td>v)</td><td>Stack height of DG sets with installation drawing of exhaust pipe be submitted.</td><td>
<u>DG SETS STACK HEIGHT CALCULATION</u>
• Calculating Stack Height of DG sets For A facility:
The minimum height of stack to be provided with each generator set can be worked out using the follwing formula:
Formula:-
H=h+0.2 x √ KVA
Where:
H=Total height of stack in meter, h = Height of the building in meters
KVA = Total generator capacity of the set in KVA
• For 500 KVA DG Sets
Stack Height = 119+.2√500
= 119+4.47
= 123 Mtr
Say = 123 Mtr.
Annually Predominant wind direction of Bhubaneswar is S & SW direction. Location of DG set will be based on the down wind direction of annually pre-dominant wind direction.
The location of the stack of DG Set is fixed such that it will not have any effect on the surrounding area.

Supporting documents enclosed as Annexure-4.
</td></tr>
<tr><td>vi)</td><td>Green belt of plot area detail calculation with dimension continuous around the boundary showing in the layout map shall be submitted.</td><td>
<table>
<tr><td>TOTAL PLOT AREA 8498.7 Sqm.</td><td>TOTAL GREEN AREA 3438.57 Sq.m.</td><td>40.46%</td></tr>
<tr><td>20.66 % Plantation Area</td><td>1755.83 Sq.m.</td><td rowspan="2">139 Nos. Trees</td></tr>
<tr><td>19.80 % Lawn Area</td><td>1682.74 Sq.m.</td></tr>
</table>
<table>
<tr><td></td><td>Name</td><td>Area in Sqm.</td><td>No. of Trees</td><td>Spacing of trees</td></tr>
<tr><td rowspan="6">GREEN BELT AREA</td><td>GB-1</td><td>186.71</td><td>14</td><td>3M</td></tr>
<tr><td>GB-2</td><td>156.35</td><td>11</td><td>3M</td></tr>
<tr><td>GB-3</td><td>195.81</td><td>22</td><td>3M</td></tr>
<tr><td>GB-4</td><td>204.27</td><td>18</td><td>3M</td></tr>
<tr><td>GB-5</td><td>254.12</td><td>13</td><td>3M</td></tr>
<tr><td colspan="2">TOTAL NO OF LARGE TREES</td><td>78</td><td></td></tr>
<tr><td rowspan="4">OTHER PLANTATION</td><td>PL-1</td><td>130.04</td><td>14</td><td>2M</td></tr>
<tr><td>PL-2</td><td>492.97</td><td>32</td><td>2M</td></tr>
<tr><td>PL-3</td><td>135.56</td><td>15</td><td>2M</td></tr>
<tr><td colspan="2">TOTAL NO OF SMALL TREES</td><td>61</td><td></td></tr>
<tr><td colspan="2">TOTAL PLANTAION AREA</td><td>1755.83 Sq.m.</td><td></td><td></td></tr>
</table>
Landscape plan is attached as Annexure-5.
</td></tr>
<tr><td>vii)</td><td>Recommendations of Fire Safety</td><td>Recommendations of Fire Safety Deptt. Is attached as Annexure-6.</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th></tr>
<tr><td></td><td>Deptt.</td><td></td></tr>
<tr><td>viii)</td><td>A comparison table of earlier plan in terms of units, parking, built up area, green belt may be provided with norms.</td><td>
<table>
<tr><th>Description</th><th>As per previous EC (Expansion (After getting the EC, the construction work has not yet started at the project site.)</th><th>Proposed project (Existing+ Additional)</th></tr>
<tr><td>Building plan approval -status</td><td>Approved</td><td>Approved By BDA subject</td></tr>
<tr><td>Blocks /Phases</td><td>Block -02 (2B+G+25)</td><td>One Block (4B+G+36)</td></tr>
<tr><td>Area of plot</td><td>8489.7sq.mt.</td><td>Total Plot area = 8489.7sq.mt.</td></tr>
<tr><td>Built-up area</td><td>49927sq.mt.</td><td>119108.29sq.mt.</td></tr>
<tr><td>Ground coverage</td><td>1912.37sq.mt. (22.5%)</td><td>3111.84sq.mt. (36.62%)</td></tr>
<tr><td>Greenbelt area</td><td>2122.12sq.mt. (25%)</td><td>3438.57sq.mt. (40%)</td></tr>
<tr><td>F.A.R</td><td>4.7sq.mt.</td><td>79611.39sq.mt.</td></tr>
<tr><td>Revenue Plot No.</td><td>143(P)</td><td>143(P)</td></tr>
<tr><td>Dwelling Unit</td><td>336</td><td>280</td></tr>
<tr><td>For Residential</td><td>236</td><td>280</td></tr>
<tr><td>Fresh water requirement (KLD)</td><td>186 KLD</td><td>218 KLD</td></tr>
<tr><td>Power requirement</td><td>1713 KW</td><td>2429 KW</td></tr>
<tr><td>STP (KLD)</td><td>290 KLD</td><td>350 KLD</td></tr>
<tr><td>Height of the building</td><td>82mt.</td><td>119 mt.</td></tr>
<tr><td>No. of DG Set</td><td>02 nos. 1250 KVA</td><td>7 nos. 500 KVA</td></tr>
<tr><td>Project cost</td><td>96 Cr</td><td>153.84 Cr</td></tr>
</table>
</td></tr>
<tr><td>ix)</td><td>Structural stability for the change in the building plan from authorised structural Engineer of BDA be submitted.</td><td>Structural stability certificate is attached as Annexure -7.</td></tr>
<tr><td>x)</td><td>Since there is a reduction of 50 dwelling units in the revised proposal, Parking in terms of ECS compatible with the space provided as per norms indicating the norm of space per ECS with the copy of the</td><td>Parking provides as per Norms and parking details provides in point no-4.</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th></tr>
<tr><td></td><td>referred document be submitted.</td><td></td></tr>
<tr><td>xi)</td><td>Traffic Study copy be submitted.</td><td>Traffic Study report is attached as Annecure-8.</td></tr>
<tr><td>xii)</td><td>Calculation of RWHP (number) be revisited with maximum hourly rain fall in 24 hours in last 30 years of logical climate data with run off co- efficient s as per the norm/ realistic input and retention time.</td><td>
<table>
<tr><td colspan="6">RAINFALL RUN OFF CALCULATIONS</td><td></td></tr>
<tr><td>Area</td><td>8489.7</td><td>Catchment Area</td><td>Run off Coeff. [C]</td><td>Intensity of Rainfall (m/hr) in mm</td><td>Total (m3/hr) [Q]</td></tr>
<tr><td>Sr. No</td><td>Type of Surface</td><td>In sq.m</td><td></td><td></td><td></td></tr>
<tr><td>1</td><td>Paved Area</td><td>3147.76</td><td>0.65</td><td>0.16</td><td>327.367</td></tr>
<tr><td>2</td><td>Green Area</td><td>3438.57</td><td>0.15</td><td>0.16</td><td>82.52</td></tr>
<tr><td>3</td><td>Terrace</td><td>1912.37</td><td>0.85</td><td>0.16</td><td>260.082</td></tr>
<tr><td>Area (ac)</td><td>2.1</td><td colspan="4">8498.7</td></tr>
<tr><td colspan="5">Grand Total (1+2+3)</td><td>669.97</td></tr>
<tr><td>4</td><td colspan="5">Roof top water will be recharge to ground water through recharge well. Water collected from other area =410m3/hr</td></tr>
<tr><td></td><td colspan="5">Considering 15 minutes retention period</td></tr>
<tr><td></td><td>VOLUME required</td><td>Say</td><td></td><td></td><td>102 m3</td></tr>
<tr><td>5</td><td colspan="5">Considering I No. Rain Water harvesting Pit of Size 3.0 m dia. and 5.0 m depth</td></tr>
<tr><td></td><td colspan="5">Volume of 1 Rain Water harvesting pi</td></tr>
<tr><td></td><td>Dia. of Pit (d) in Mtr.</td><td>=</td><td></td><td></td><td>3</td></tr>
<tr><td></td><td>Depth (D) in Mtr.</td><td>=</td><td></td><td></td><td>5</td></tr>
<tr><td></td><td>Volume of 1 Pit in Cum</td><td>=</td><td colspan="2">Pi X r2 X h</td><td></td></tr>
<tr><td></td><td></td><td>=</td><td colspan="2">3.14 x(1.5x1.5)x5</td><td>35.325</td></tr>
<tr><td></td><td>Say</td><td>=</td><td></td><td></td><td>35</td></tr>
<tr><td>6</td><td colspan="5">Total Nos of Rain Water Harvesting Pits</td></tr>
<tr><td></td><td>Total Volume Required</td><td>=</td><td colspan="2">102 m3</td><td></td></tr>
<tr><td></td><td>Volume of Unit Harvesting pit</td><td>=</td><td colspan="2">35</td><td></td></tr>
<tr><td></td><td>Total number of pits</td><td>=</td><td colspan="2">2.9</td><td></td></tr>
<tr><td></td><td>say</td><td>=</td><td colspan="2">3</td><td></td></tr>
<tr><td></td><td colspan="5">Providing 5 No of Rain Water Harvesting Pit of size 3.0m dia x 5.0m depth</td></tr>
</table>
Layout plan showing recharge pit is attached as Annexure-9.
</td></tr>
<tr><td>xiii)</td><td>Plan with detail calculation of solar power consumption vis-a- vis the generation and as percentage of total power demand be</td><td>
<table>
<tr><td>Solar Water Heating</td><td>20 % of total hot water requirement must be catered through Solar Thermal system</td><td>Total No. of Occupants in 4BHK @ 7 persons /flat = 280 x 7 = 1960nos. Hot Water</td></tr>
</table>
</td></tr>
</table>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent		
	submitted.			Requirement @ 25 lpcd x 1960 = 49000 liters Solar Hot water system for 20 % of capacity = 9800 liters Solar Panel Nos@ 500 Liter/Panel = 19.6 Nos. Say = 20 Nos
		Solar PV Panel	Providing for emergency lighting of common area (staircase, lift lobby lobby, basement etc.	5% of Demand Load SPV Modules of 445 Wp or above for a total capacity 128KW SPV Panel Nos.@ 445 Wp/Panel = 288 Nos.

After detailed discussion, the SEAC decided to take decision on the proposal after the site visit by the sub-committee of SEAC.

ITEM NO. 04

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. VIKASH MULTI SPECIALITY HOSPITAL PROJECT FOR EXPANSION OF VIKASH MULTI SPECIALITY HOSPITAL OVER AN AREA OF 82,313.06 M2 (20.34 ACRES) LOCATED AT BARAHAGUDA CANAL CHOWK, DISTRICT-BARGARH, ODISHA OF SRI D MURLI KRISHNA (PARTNER) & TOTAL BUILT UP AREA - 1,24,483.00 M^2 - EC

1. M/s Vikash Multi Speciality Hospital aims to expand the existing Hospital from 150 beds to 1050 beds over Chaka Plot No.-1396,1397,1398,1390,3541,3546(P), 3531, 3547, 3551, 3528, 3529, 3549, 3533, 3550, 3533/16270, 3542, 1403, 3560, 3566, 1389, 2113(P), 3558, 1393, 1401, 3560(P), 1395, 1394, 1399, 1400, 3561, 3548, 1402, 1402/3968, 1392,1391 at Barahaguda Canal Chowk, District-Bargarh, Odisha for land measuring 2.32 ha (20.34 acres) or 82,313.06 m^2.
2. The project falls under category “B” or activity 8 (a)-Building & Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. The site is coming under Bargarh Panchayat. There are total 11 blocks i.e existing Hospital, proposed Hospital Wing-1, Hospital Wing-2, Hospital Wing-3 (Medical College), Hospital Wing-4, Boys Hostel-Block -1, Boys Hostel-Block-2, Girls Hostel-Block -1, Girls Hostel-Block-2, Nurses Hostel, Nurses Quarters.
4. The EC application was submitted online to SEIAA, Odisha on 4th January 2022 vide proposal no. SIA/OR/NCP/249833/2022.
5. The site is adjacent to NH-53 towards North direction. The nearest railway station is Bargarh Railway Station approx. 2.4 km in SW direction from the project site and Veer Surendra Sai

Airport, Jharsuguda is at a distance of approx. 73 km in North East direction from the project site.

6. The project has 1 basement and 6 floors (B+G+6). The maximum height of the building will be 23.4 m. The total plot area is 82,313.06 sqm. The permissible ground coverage will be 41,156.53 sqm (50%) and proposed Ground Coverage will be 18,960.00 sqm (23.03%). The permissible FAR will be 4,93,878.36 sqm (@ 6 of plot area) and proposed FAR will be 1,07,573.00 sqm (1.31 of plot area). The non-FAR for the project will be 16,910.00 sqm. Total Basement area will be 10,699.00 sqm. Total Built up area for the project will be 1,24,483.00 sqm. The total population of project after proposed expansion will be 4825 persons.
7. The total water requirement will be 1006 KLD. The total domestic water will be 687 KLD, out of which fresh water requirement is approx. 525 KLD will be met through Ground water and Bore well.
8. The project will generate approx. 603 KLD of wastewater.
9. The wastewater will be treated in an onsite STP of 560 KLD capacity and ETP of 170 KLD. The treated water (419 KLD @ 90% of total waste water) will be reused for flushing (162 KLD), horticulture (140 KLD) & HVAC Cooling (12 KLD). Surplus treated water during dry season (229 KLD), monsoon season (355 KLD) and winter season (318 KLD) will be discharged to external sewer with the requisite permission. Total 28 RWH pit at different locations will be constructed.
10. Total parking area requirement will be 32,271.9 m^2 and provision will 33,200 m^2. And Total Parking i.e. 1,273 ECS will be provided.
11. Power Requirement: The power supply will be supplied by TPCODL, Bhubaneswar City Distribution. The requirement load for the project will be approx. 4200 kVA.
12. Power Backup: Total 7 nos. of DG sets total 3365 kVA (6*500 kVA+1*365 kVA) capacity for power back up in the residential block and the services and annexure block. Silent DG sets (Radiator cooled). Separate generator yard will be constructed for the residential block. The total solid waste generation will be 2355 kg/day. Total green area measures 27,986.5 m^2 i.e. 34% of the plot area. Tree Plantation area = 18,108.87 m2 (22%) + Lawn area = 9,877.56 m2 (12%). As per MoEF&CC guidelines, no. of trees required= Plot area/80 sqm. Hence, 82,313.06/80 = 1028.9 say 1029 Nos. Total no. of trees proposed = 1035 no's Total Project cost is INR 262.42 Crores including land and development cost.
13. Vikash Multi Specialty Hospital is an existing hospital at Barahaguda Canal Chowk, District-Bargarh, Odisha with 150 beds (total existing built-up area – 11,148 m^2) and aims to expand the same to 1050 beds. Total built-up area will be increased from 11,148 m^2 to 1,24,483 m^2 for the proposed expansion.
14. The chronology of the project is as follows:
    i) They had obtained Consent to Establish vide No.13847/IND-II-NOC-6076, dated 16.10.2017 for construction of Hospital Project of 150 Beds (with total built-up area 11,148 m^2) and construction of the project was started after getting Consent to Establish.
    ii) They also had obtained the provisional Occupancy certificate on 13.10.2017 for B+G+3 and Bio Medical Waste Authorization vide no. 16347/SPCB/Authorization (Bio Medical Waste)

dated 19.12.2017 for Generation, Segregation, Collection, storage, packaging, reception, Transportation, Treatment, Recycling, which is valid till 31.03.2022.

iii) After completion of the construction of the project, they obtained Consent to Operate vide no. 6618/III-Con (Operate)133/2017-18, dated 14.12.2017 which is valid up to 31.03.2022 for 150 beds to start the operation.

15. The total site area measures 82,313.06 m^2 (approx. 20.34 acre) and total estimated built-up area is 1,24,483.00 m^2 and requires Environmental Clearance.

16. The Environment consultant **M/s Grass Roots Research & Creation India (P) Ltd., F-374-375, Sector-63, NOIDA-201301, U.P** along with the proponent has made a presentation on the proposal before the Committee on 31.01.2022.

17. The SEAC in its meeting held on dated 31.01.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent followed by site visit of the sub-committee of SEAC.The project proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	Through the proposed source of water is ground water for a quantity of 687 KLD, the PP need to take up suitably with W.R Deptt and explore the possibility of getting river (surface) water from the nearest river located at about 1km away through intake point in the river & pipe line till the project site. In case it is not agreed upon by W.R Deptt, then necessary 'NOC' to be obtained from CGWA for ground water and corresponding permission from W.R Deptt, Govt of Odisha.	We have applied to the Irrigation department, Bargarh Division, Bargarh for drawing water from Danta River. Copy of the same is attached as **Annexure-I**. We have obtained NOC from CGWA and also have been submitted the application for renewal. Copy of the same is attached as **Annexure-II**. Undertaking to obtain permission from CGWA for expansion part is attached as **Annexure –III.**
i)	Existing capacity of ETP & STP with quantity of input to ETP & STP including the source be indicated. So also, the projected estimated quantity of input to STP & ETP including the source be confirmed. Chemical analysis of input to existing ETP & output discharge of the same be submitted. Flow sheet of ETP (existing and proposed) is to be submitted.	**The existing details for STP and ETP.** The waste water input to ETP-5 KLD ETP capacity =6KLD The waste water input to STP=100 KLD STP capacity=120KLD The post expansion of the project. The waste water input to ETP = 138 KLD ETP capacity = 170 KLD The waste water input to STP = 465 KLD STP capacity = 560 KLD The chemical analysis and flow sheet for

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		technology of ETP is attached as **Annexure-IV**.
ii)	To confirm that the output discharge from ETP (both existing & proposed) shall not be discharged to the public drain and the re-use of the same (details with estimated calculation) be submitted.	The treated water from ETP will be given to a private water tanker agency for use in other industrial sites / construction activities. An undertaking for the same is attached as **Annexure-V**.
iii)	Since discharge of treated waste water from STP is too high in the range of 229 KLD to 355 KLD is a different season, the permission of the outside public drain authority to take this additional load be submitted including storm water (if any).	The drain is falling under jurisdiction of Bargarh Panhayat and we have received the permission from the Bargarh Panchayat to discharge the excess treated water from STP. Copy of the permission and details of drain capacity are attached as **Annexure-VI**.
iv)	'ROW' of the land connecting the internal drain to the external land in favour of PP be submitted.	The land connecting the internal drain to the external land is in possession of Vikash Hospital. An undertaking for the same is attached as **Annexure-V**.
v)	273 ECS is stated to have been provision for parking against projected population between about 3000 to 4800 users which is too inadequate and no provision has been made for two wheelers & bicycles. Therefore, parking provision need to be re-visited and re-worked out for which the following suggestions are made: a) Provision of parking of two wheelers adjacent to hospital wings. b) Identifying & demarcating open parking.	Earlier, we had proposed the following parking details: Basement parking = 10,071/32m^2 = **315 ECS** Stilt parking = 6,211/28m^2 = **222 ECS** Surface Parking = 16,918/23m^2 = **736 ECS** **Total Parking proposed earlier** **= 33,200m^2** = 315+222+736 = **1273 ECS** As per SEAC suggestion, we have revised the parking as follows: Basement parking = 10,071/ m^2 = **315 ECS** Stilt parking = 6,211 /28m^2 = **222 ECS** Surface Parking = 19,409/23 m^2 = **844 ECS** **Total revised Parking proposed** **= 35,691 m^2** = 315+222+844 = 1381 ECS Two Wheeler parking = 70 nos. will be provided near hospital wings. Open parking has been increased from 736 ECS to 844 ECS. Site plan showing the parking is attached as **Annexure – VII**.
vi)	Provision of incinerator has not been made / proposed. It is	As per SEAC suggestion, we will provide incineration facility in hospital complying with

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	desirable to have incinerator of adequate capacity & suitable design and the same be confirmed & submitted.	CPCB norms. An undertaking stating the same is attached as **Annexure- VIII**.
vii)	No of DG sets with capacity at present & their stack height be confirmed. Since it has been proposed 7 nos. of DG sets of total cumulative capacity of 3365 KVA (6x500 KVA + 1x365 KVA), their location with reference to predominate wind direction and location of the hospital / academic wings, hospital & residential blocks be submitted along with the stack height(s) and installation drawing of the exhaust pipe(s). Besides, emission analysis the stack be submitted including the carbon balance with carbon neutrality (Net Zone) calculation be submitted including the measures.	The Sets location is as per predominant wind direction and there is no sensitive receptor in downwind direction, therefore, incremental GLC will not cause any significant impact. Master plan showing DG location is attached as **Annexure-VII**. Details of DG stack height and Isopleths are attached as **Annexure – VII(a)**.
viii)	The report does not contain about the residential block of doctors. The same be submitted.	The residence facility has been provided for the doctors. Master plan showing residence facility for doctors is attached as **Annexure – VII**.
ix)	Fire Tender Corridor with dimension be indicated & shown in the layout map. Fire safety Certificate for existing hospital setup & Fire safety Recommendations for the proposed expansion be submitted before consideration of EC.	The fire-fighting facilities including road width for movement of Fire tender will be as per NBC 2016 and the same has been shown in the Master plan. Master plan showing the width of road is attached as **Annexure-VII**. We have recived Fire safety certificate from Fire Officer, Northern Range, Sambalpur, Odisha for existing Hospital. Copy of the same is attached as **Annexure-IX**. We also have applied for NOC to the fire department. We will submit the NOC copy to SEAC/SEIAA Odisha in due course of time. Copy of the application is attached as **Annexure-X**.
x)	Existing & proposed green belt details with stretch / dimension / trees of plantation & the species shall be submitted.	Total green area = 27,986.5 m^2 i.e (34% of the plot area) • Plantation area = 18,108.87 m^2 (22%) • Lawn area = 9,877.56 m^2 (12%) Green belt width will vary from 3 m to 5 m. No. of trees required = 1 tree /80sq.m of plot area = 82,313.06/80 = 1028.9 say 1029 Nos.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		Total no. of trees proposed = 1035 no's The trees species proposed are Azadirachta indica, Cassis fistula, Terminalia arjuna, Butea monosperma etc.
xi)	Provision of continuous layer of green belt along the boundary inner side with dimensions shall be submitted.	Landscape plan with continuous green belt along the boundary inner side is attached as **Annexure – VII**.
xii)	Kisam (Sabik & Hal) of plots of land for the project be submitted prior to EC.	The kissam of land is Gharabari. The letter vide no. 3652 dated 16/05/2018 from Tehsildar, Bargarh is attached as **Annexure – XI**.
xiii)	To ensure energy conservation, list of Electrical Equipment, instruments, appliances, devices & fixtures with star rating as per BEE under Energy Conservation Act, 2003 shall be submitted.	The Electrical Equipment, instruments, appliances, devices & fixtures with starrating as per BEE under Energy Conservation Act, 2003 will be used. An undertaking for the same is attached as **Annexure-V**.
xiv)	Submission of revised calculations RWH pits considering highest hourly rainfall during last 30 years, run off co-efficiency & retention time.	Earlier, we had proposed 28 RWH pits which has been revised to 33. Revised rain water harvesting calculation is attached as **Annexure-XII**.
xv)	Solar power generation with locations & it's utilization shall be submitted.	More than 5% of electrical load will be met through solar energy. Solar panels will be installed on terrace. Details are attached as **Annexure-XIII**. An undertaking for solar energy use is attached as **Annexure-XIV**.
xvi)	Permission of State Government for establishment of 1050 bedded hospital with medical college be submitted.	We have received permission from Health & Family Welfare Department, Govt. Odisha for 800 beds. Copy of the same is attached as **Annexure- XV**. We are under process to obtain the permission from State Government for establishment of 105 bedded hospital. We will submit to SEAC/SEIAA, Odisha in due course of time. An undertaking for the same is attached as **Annexure-V**.

After detailed discussion, the SEAC decided to take decision on the proposal after the site visit by the sub-committee of SEAC.

ITEM NO. 05

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S RAMCO CEMENTS LTD., FOR EXPANSION OF EXISTING STAND-ALONE CEMENT GRINDING UNIT CAPACITY FROM 0.90 MTPA TO 1.80 MTPA (LINE-II) BY INSTALLATION OF AN ADDITIONAL CEMENT MILL OF CAPACITY 165 TPH BY M/S THE RAMCO CEMENTS LIMITED (TRCL) LOCATED AT/PO: HARIDASPUR, PS/TEHSIL: DHARMASALA, DIST: JAJPUR, ODISHA OF M. SRINIVASAN

(PRESIDENT) – EC

1. The proposal is for Environmental Clearance of M/s Ramco Cements Ltd., for expansion of existing stand-alone cement grinding unit capacity from 0.90 MTPA to 1.80 MTPA (Line-II) by installation of an additional Cement mill of capacity 165 TPH by M/s The Ramco Cements Limited (TRCL) located at/PO: Haridaspur, PS/Tehsil: Dharmasala, Dist: Jajpur, Odisha of M. Srinivasan (President).
2. The project falls under schedule 3 (b) "Cement Plants. All Stand-Alone Grinding Unit, listed in the schedule as Category- B2 subject to the condition that transportation of raw material and finished products shall be primarily through railways; Vide MoEF O.M. J-13012/12/2013-IA-II (I), dt. 24.12.2013.
3. The project of M/s The Ramco Cements Limited located At/PO: Haridaspur, PS/Tehsil: Dharmasala, District: Jajpur, Odisha-755024 is for Expansion of existing stand-alone cement grinding unit capacity from 0.90 MTPA to 1.80 MTPA (Line-II) by installation of an additional Cement mill of capacity 165 TPH.
4. **Location and Connectivity –** Total land is 72.84ha. and Geographical co-ordinates of the Project is Latitude – 20°44'43.9"N to 20°44'8.55"N and Longitude - 86°06'54"E to 86°07'208"E. Project site is falling in Survey of India Toposheet No - F45U1 & F45U2. Nearest national Highway is NH-200 at 3 km and NH – 5 at 2.5 km. Nearest Railway station is Haridaspur Railway Station- 0.8 Km. Nearest airport is Biju Patnaik International Airport, Bhubaneswar at a distance of approximately 75.3 km. Nearest Reserve Forest is Bischinta R.F- 9.8 Km. Nearest water body are Kumaria Nala - 3.2 Km and Brahmani River is at 4.9 km. Nearest habitation is Haridaspur – 1km. Nearby Industries are M/s. P. J. Resources Pvt Ltd. – 1.3km and M/s. P. J. Minerals International Pvt Ltd. – 1.5km.
5. The existing project was accorded environmental clearance vide Ref. No. 3731/SEIAA, dated 26.10.2017. Consent to Operate for the existing unit was accorded by State pollution Control Board, Odisha vide lr. No. 5296/IND-I-CON-6741, dated 26.03.2021. The validity of CTO is up to 31.03.2026.
6. The unit configuration and capacity of existing and proposed project is given as below:

Product	Total Quantity in MTPA
Existing of Products Manufactured	
Portland Pozzolana Cement (PPC)	0.90
Portland Slag Cement (PSC)	
Ordinary Portland Cement (OPC)	
Expansion Products & Capacity	
Portland Pozzolana Cement (PPC)	0.90
Portland Slag Cement (PSC)	
Ordinary Portland Cement (OPC)	
Masonry Cement (MC)	
Sulfate Resisting Portland Cement (SRPC)	
Composite Cement (CC)	

7. The details of the raw material requirement for the proposed project/ expansion cum proposed project along with its source and mode of transportation is given as below:

Raw material	Source	Transportation mode	Existing plant requirement TPD	Proposed plant requirement TPD	Total plant requirement TPD (existing +proposed)	Distance in km
Clinker	TRCL, Jayanthipuram, Andhra Pradesh.	Rail	1,800	1,800	3,600	950
	TRCL, Ariyalur & Alathiyur, Tamilnadu.					1700
	Imported, Paradeep Odisha.					100
Flyash	Tata Steel BSL Limited Kalinga Nagar, Odisha	Rail	1,050	1,050	2,100	35
Phospo gypsum	Paradeep Phosphates Ltd, Paradeep, Odisha	Rail	150	150	300	100
Mineral Gypsum	Imported (Oceanic Trade Minerals Pvt. ltd, Paradeep Odisha.					100
Slag	RINL, Vizag, Andhra Pradesh (In future)	Rail	1,400	1,400	2,800	550
	TATA-BSL Meramendali, Odisha (In future)					150
	Tata steel, Angul, Odisha (In future)					160
	JSPL, Angul, Odisha					160
	VISA, Kalinga Nagar,Odisha (In future)					35
	Mesco, Kalinga Nagar,Odisha (In future)					35
	NINL, Kalinga Nagar,Odisha(In future)					35
			Existing plant requirement TPA	**Proposed plant requirement TPA**	**Total plant requirement TPA (existing +proposed)**	
Coal	Imported (Adani Enterprises Ltd) ,Paradeep, Odisha.	Rail	20,000	20,000	40,000	35

8. **Water Requirement** – The water requirement for the project is estimated as 200 m3/day, out of which 100 m3/day of fresh water requirement will be obtained from ground water and the remaining requirement of 100 m3/day will be met from the Sagaria Nala. The permission for drawl of groundwater Vide NOC letter No. CGWA/NOC/IND/REN/1/2021/5825, Dt. 27.03.2020 to 26.03.2023 from Central Ground Water Authority (CGWB) and Surface water nearby Sagaria Nalla permission of same obtained Vide NOC Lr.No. WT-135/104, dated 04.01.2020

from Jaraka Irrigation division.

9. **Power Requirement** - The power requirement for the project is estimated as 17,800 KVA, out of which 10000 KVA in 132 KVA supply system shall be met from NESCO Utility on chargeable basis Vide Letter No. FC/CO/936/ 56040; dt. 23.07.2020. Also for standby operation 2. Nos of 6 MW DG- Sets installed. For Proposed expansion project power requirement of 7,100 Kwh i.e. 7,800 KVA permission is under process.
10. **Waste Management** - The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

Sl. No.	Source of Generation	Source	Quantity	Management Plan
i)	Dust from APC Devices		100 TPA	Will be completely reused in Cement manufacturing process.
ii)	Ash from HAG		5,000 TPA (approx.)	Will be completely reused in Cement manufacturing process.
iii)	Sludge from settling tank of Treatment System.		0.5 Ton	Will be used as manure in green belt development.
iv)	Garbage / food waste from canteen & guest house		0.7 Ton	Will be made vermin composting and will be used as manure for green belt development.
S. No.	**Category of Hazardous Waste as per the Schedules I, II & III of these rules**	**Waste Description**	**Quantity**	**Mode of Disposal**
i)	Schedule- I Stream- 5.1	Used Oil / used Lubricants	500 Ltrs	Will be sold to authorize Re-processors.

11. **Green Belt**- Greenbelt will be developed in 50.38 ha which is about 33% of the total project area. A 2x2 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare.
12. **Employment Potential**: The total manpower requirement during operation phase of the project is estimated to be 75 Persons; out of which, 65 persons are existing manpower and 10 persons will be employed for the expansion.
13. Total Project Cost - The capital cost of the project is Rs 837.31 Crores and the capital cost for environmental protection measures is proposed as Rs 20 Crores. The annual recurring cost towards the environmental protection measures is Rs 0.45 Crores.
14. The proponent along with the consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar** made a detailed presentation before the SEAC on the proposal on 07.12.2021. The project proponent has requested to consider the project as category B2 and exempt them for conducting detailed EIA study.

15. The SEAC in its meeting held on dated 07.12.2021 decided to take decision on the proposal after receipt of the certain information / documents from the project proponent. The project 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)	"Kisam" of the land of the existing unit and the proposed expansion with conversion to "Industrial use" from appropriate Revenue Authority be submitted.	The 'Kisam' of the land Existing unit and the proposed expansion with conversation to "Industrial use" for Lane-I & II (lease deed with Plot No.) attached as **Annexure -1**.
ii)	A comparative statement in tabular form of existing physical features, natural resources and environmental parameters and the proposed expansion be submitted. In case of physical features, the existing and the proposed be shown with dimensions in the lay out map.	A comparative statement for existing physical features, natural resources and environmental parameters are detailed in Table No.1 in **Annexure-2**. Revised Layout with marking of existing and proposed features is attached as **Annexure-3**.
iii)	Comparative chart showing environmental parameters (i) as per base line data, (ii) as at present and (iii) as projected after expansion along with remedial measures.	The comparative chart showing the environmental parameters as per the baseline data, during present scenario and projected scenario after expansion along with deviation & mitigation measures is furnished as **Annexure -11**.
iv)	Certificate of compliance to existing conditions (latest) from MoEF&CC, Regional Authority be submitted. Wherever it is "being complied / partially complied / not complied", the reason be indicated for the same and definite reasonable time from be submitted for full compliance, and so also for CTE/CTO from Sate Pollution Control Board.	A certified closure Report of existing condition from MoEF & CC and compliance for CTE/CTO from State Pollution Control Board (SPCB) area attached as **Annexure -4**.
v)	Compression of "Base line Data" before existing EC and present be submitted with mitigation measures for the deviation if any.	Comparison of Baseline data for existing and proposed expansion is furnished as **Annexure -11**.
vi)	Details of design & capacity of STP (existing & for proposed expansion) be submitted.	A STP of capacity 100 KLD for existing & expansion is proposed. The detailed design is attached as **Annexure -5**.
vii)	Detail of water management (for existing & proposed expansion) with source be submitted including NOC/ permission from CGWA/ Water Resources Deptt., Govt of Odisha as the case may be along with waste water management.	A water Sourcing Management Scheme/ Hydro geological cum Rainwater harvesting Report & NOC permission letter from CGWA for 100m^3/day (Ground water extraction); valid till 26.03.2023 and 0.04 cusec (Surface water from Sagaria Nalla) from office of the Executive Engineer, Jaraka Irrigation Division, Dist – Jajpur, had been obtained vide Letter No. WT-135/104 dated. 04.01.20 & attached as **Annexure -6**.
viii)	Provision of Solar Power / plan with exact calculation, both generation & consumption for existing & proposed expansion be submitted indicating the	A 1204.5 kWp Rooftop Solar PV Power Plant for Expected Annual Generation – 1511140 kWh for existing & expansion was proposed & finalized. Copy of the proposal with calculation

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	percentage of the same against the total power demand.	of generation & consumption is attached as **Annexure -7**.
ix)	DG set details with location, no & capacity & installation drawing of Stack / exhaust pipe be submitted.	The Number of DG Sets with their location marking capacity & installation drawing of Stack/ exhaust pipe is attached as **Annexure -8.**
x)	No of tracks plying (to & fro), (loaded & empty) – incoming & outgoing with their parking provision & dust suppression system be submitted for the existing and the proposed expansion.	As per the condition stipulated in existing environmental clearance, the present unit follows 100% transportation of raw material and 90 % of finished product through railway. Proposed expansion also followed the same.
xi)	Details of installation of bag filters be submitted.	Details are given for installed Bag filters with Equipment No. and their design, volume (M^3/Hr) & are attached as **Annexure -9**.
xii)	Details of green belt (existing & expansion) around the boundary of the plant with drawing / dimension in the layout map be submitted.	Details of green belt for existing and proposed area shown in tabular form and its marking & dimensions are presented in the Plant layout map. The same is attached as **Annexure -10**.
xiii)	Inversion / Dispersion modeling study be undertaken by a domain expert and based on the findings, mitigation measures be submitted.	Isopleths of Modeling along with findings & mitigation measures area attached as **Annexure-11**.
xiv)	Carbon balance with carbon neutrality (existing & proposed expansion) be submitted.	Carbon Balancing with Carbon neutrality for existing & proposed expansion is furnished as **Annexure -12**.
xv)	Details of Warehousing Management of Coal & Gypsum be submitted (for existing & proposed expansion).	The warehousing Management of coal & Gypsum for existing & proposed expansion are attached as **Annexure -13**.
xvi)	Detailed justification as to why the expansion proposal will be treated as category B2 project.	A detailed justification for Line –II expansion proposal for its categorization as B2 is furnished herewith along with a MoEF & CC O.M dated 24th Oct 2013 stating the said condition and a Environmental Clearance letter of M/s. RCL Vizag Cement Grinding Unit for reference are attached as **Annexure -14**.
xvii)	Existing capacity of rail corridor and whether same can be cater the need of expansion project with justification.	Justification for no additional development of Railway Corridor is required to cater future needs for proposed expansion along with Railway Agreement copy is attached as **Annexure -15**.

16. The SEAC observed the following:

a) The proponent has requested to the committee to accord Environmental Clearance for the Proposal under B2 Category as per MoEF&CC, Govt. of India OM No. J-13012/12/2013-IA-II(I), dated 24th Dec, 2013. The said OM stipulates that all standalone grinding units listed in the Schedule under - 3 (b) as category-B will be treated as category-B2 subject to the condition that transportation of raw material and finished products shall be primarily through railways i.e. transportation by railways should not be less than 90% of the traffic (inward and outward put together).

b) Proposal of existing unit was also considered under B2 category as per MoEF&CC, Govt.

of India OM No. J-13012/12/2013-IA-II(I), dated 24th Dec, 2013.

c) The proponent has already developed the railway corridor for the existing unit and operating the same after obtaining Consent to Operate from the Pollution Control Board.

d) The proponent has intimated that no additional development of Railway Corridor is required to cater future needs for proposed expansion along with Railway. The existing railway corridor will cater the need for proposed expansion.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s. Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar** on behalf of the project proponent, the SEAC recommended to accord Environmental Clearance for the proposal under **B2 Category** as per MoEF & CC, Govt. of India OM No. J-13012/12/2013-IA-II(I), dated 24th Dec, 2013 for a period of 7 years with stipulated conditions as per **Annexure-B and in addition to the following specific conditions:**

a) Transportation of raw material and finished products (both for existing and proposed expansion) shall be primarily through railways i.e. transportation by railways should not be less than 90% of the traffic (inward and outward put together) as proposed by the proponent as per MoEF&CC, Govt. of India OM No. J-13012/12/2013-IA-II(I), dated 24th Dec, 2013. The proponent shall construct the additional railway corridor after obtaining permission from the railway authority if the existing railway corridor will not adequate for the proposed expansion. In such case, the proponent shall go for production activity for proposed expansion after completion / operation of the additional railway corridor.

b) Permission from WR Department, Government of Odisha shall also be obtained for ground water extraction of 100 cu.m/ day besides NOC from CGWA

c) **All the compliances submitted/ committed by PP (s) shall be strictly adhered to by them.**

ITEM NO. 06

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S URBANYX INFRA PVT. LTD FOR PROPOSED CONSTRUCTION OF B+S+11 STORIED RESIDENTIAL APARTMENT OVER AN AREA OF 1.22AC. OR 4940.074 SQM. LOCATED AT DUMDUMA, BHUBANESWAR, DIST – KHORDA WITH TOTAL BUILT UP AREA- 22987.34SQM OF SRI JAVED AKHTAR (DIRECTOR) - EC

1. The proposal is for Environmental Clearance of M/s. Urbanyx Infra Pvt. Ltd for proposed construction of B+S+11 Storied Residential Apartment over an area of 1.22Ac. or 4940.074 sqm. located at Dumduma, Bhubaneswar, Dist – Khorda with total built up area- 22987.34sqm of Sri Javed Akhtar (Director).
2. The project falls under category "B" or activity 8 (a)-Building and Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. M/s Urbanyx Infra Pvt. Ltd. proposes to construct B+S+11 Storied Residential Apartments comprising of 1st Floor-3BHK- 7 Flats, 2nd Floor-3BHK-8 Flats and 3rd Floor to 11th Floor - 3BHK-9×10 = 90 Flats. The project is in Plot No.:- Plot No- 561 and 561/3998/4807. Khata No- 432/2853 and Kissam – Gharabari of Mouza- Dumduma, Bhubaneswar, Dist- Khurda, Odisha.
4. **Location and Connectivity** - The proposed site is located at Dumduma near NH-16 in Bhubaneswar, Odisha. The Geographical co-ordinate of the project site is: Latitude 20° 15' 06.13" N & Longitude 85°47' 24.23" E and is in Toposheet No- F45T15. National Highway-16 is at a distance of 0.4 Km in W direction from the project site. Lingaraj Temple Road Railway Station at a distance of about 3.4 Km in E direction from the project site. Biju Patnaik International Airport at a distance of about 3.13 Km in E direction from the project site.
5. The site is coming under Bhubaneswar Development Authority. The project comprises of comprising of 1st Floor-3BHK- 7 Flats, 2nd Floor-3BHK-8 Flats and 3rd Floor to 11th Floor - 3BHK-9×10 = 90 Flats. Total no.od dwelling units is 105 nos.
6. The total plot area is 4940.074 m^2 (0.5034ha) with total built-up area 22987.34 Sq.mt.
7. The Building Details of The Project:

Particular	Proposed
Project Name	M/s. Urbanyx Infra Pvt. Ltd
Plot Area	4940.074 Sqm.
Ground Coverage	1971.71 sqm (39.91 %)
FAR (Floor Area Ratio)	3.57
Built up Area	22987.34sqm
Maximum Height	39.90 m
Total Parking Area	190.34sqm (3.80 %)
Green Belt Area	3421.6 sqm (21.99 %)
Maximum No. of Floor	• 1st Floor - 3bhk of 7 flats • 2nd floor - 3BHK of 8 flats • 3rd to 11 floor – 3BHK of 9×10 Flats each floor-90flats
Power/Electricity Requirement & Sources	Total - 757 KW Solar - 15 KW

No. of DG sets	200 KVA
Water requirement	60 KLD (Fresh)
Sewage Treatment Plant	STP Capacity - 100 KLD
Total Dwelling Units	105 nos.

8. **Water requirement**: The total fresh water requirement is 60KLD which will be sourced from ground water during operation phase. The Flushing water requirement is 34KLD.Treated waste water re-use for Residential building is 79 KLD from STP and the STP capacity is 100KLD. Fresh water will be extracted from ground water through bore well.
9. **Power requirement**: The total power requirement for the purpose project is 757kW. The power will be entirely supplied by Tata Power Central Odisha Distribution Limited (TPCODL). For this purpose a diesel generator having 200KVA (1 Nos.) capacity will be provided and Stack height of the D.G Set is 42.73. 15kW of solar power will be used for common purpose out of 60 kW meant for common use.
10. **Rain Water Harvesting**: The 5 Nos. of recharge pit is required for harvesting rain water from terrace are, hard paved area and natural ground.
11. **Parking Requirement**: Total parking area required 19000.9 sq.mt./728 ECS will be provided.
12. **Firefighting Installations**: Firefighting system will be installed as per recommendation of the Firefighting Officer, Odisha and as per the provisions given in Part-8 "Building Services, Section-2 Electrical and allied installations" of NBCI-2016 and Section-7 of National Electrical code, 2011.No objection certificate of fire safety recommendation with File No-C-54-2020 is approved by Chief fire officer, fire prevention wing, Director of fire services, Odisha, Cuttack.
13. **Green Belt Development**: An adequate landscape on area of 988.01sq.m. (20.50% of the plot area) inside the project site will be developed.
14. **Solid Waste Management**: The total municipal solid waste generation is 332 kg/day from which organic solid waste is 150 kg/day which is will be composted by vermi composting micro plant and the inorganic solid waste is 182.5kg/day which will be given to BMC.
15. The total population of project will be 105 persons.
16. The estimated project cost is ` 50 Crores and cost for EMP is 152 lakhs.
17. The project proponent along with the consultant **M/s Global Tech Enviro Experts PVT. LTD., Bhubaneswar, Odisha** made a detailed presentation on the proposal.
18. The SEAC in its meeting held on Dt: 24.09.2021 decided to take decision on the proposal after receipt of the following information / documents from the proponent followed by visit of the sub-committee of SEAC to the site.
19. The project proponent has furnished compliances as desired by the committee and same has been verified as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	Layout of drainage system and exact distance of project site to nearest drain and outfall	Layout of drainage system and exact distance of project site to nearest drain and outfall of drain map is submitted as Annexure - I.	Exact distance of the project site to nearest drain not indicated are sought, including the

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th><th>Views of SEAC</th></tr>
<tr><td></td><td>of drain.</td><td></td><td>ROW/Ownership of the land to cover the said distance.
Hence partially complied.</td></tr>
<tr><td>ii)</td><td>Status of NOC from BMC/ appropriate authority for the above drain for sewage disposal to be submitted.</td><td>NOC from BMC/ appropriate authority for the above drain for sewage disposal is submitted as in Annexure-II</td><td>Executive Engineer PHD has regretted to take the load of Sewage at present no communication from BMC is available to the said affect as advised by PHD.
Hence not complied.</td></tr>
<tr><td>iii)</td><td>Proposal to increase in usage of treated waste water in premises and thereby reducing quantity of discharge to drain. Revised water balance to be submitted to meet the zero discharge of water from premises.</td><td>Waste water generated from the project has been estimated to be 88KLD. This will be treated in 100KLD STP and 34KLD will be recycled back to flushing system, 6KLD will be used in Landscape and gardening and 39KLD will be discharged to nearest drain.

As per Reference letter No- 18241 dated 31.12.2020 from office of Executive Engineer, PHED, Bhubaneswar to M/s. Urbanyx Infra Pvt. Ltd. No effluent from septic tank will be discharged into existing natural Nallah/water body. M/s. Urbanyx will construct 100KLD STP and effluent will meet the standard stipulated by CPCB. This treated water will be discharged to the nearest public Nallah as existing sewerage system is inadequate to take the sewage load at present. When public sewage system of PHED will be adequate adjacent to project site in future, sewage shall can be discharge into it.</td><td>No Permission from the authority of Nala is available. How far is Nala from the project side? And the ownership of the said land also in favor of PP is required provided the authority of Nala agree to take the load.</td></tr>
<tr><td>iv)</td><td>Adequate parking in terms of ECS for dwelling units with locations including compatibility with the proposed parking space provided needs to be submitted in tabular form with % and number.</td><td><table><tr><th>Sl No.</th><th>Description</th><th>Area in Sq.m</th><th>No. of parking @15 sq.m/ ECS</th></tr><tr><td>1.</td><td>Open Parking area</td><td>190.34</td><td>12</td></tr><tr><td>2.</td><td>Silt floor</td><td>1817.09</td><td>121</td></tr></table></td><td>Taken at the rate of 15 sq.m/ECS uniformly, stilt and basement for ECS Calculation. Basis and reference document to be submitted. Besides, parking to be shown in layout map for four wheelers, two wheelers and bicycles separately with demarcation. ECS</td></tr>
</table>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<table><tr><td></td><td>Parking</td><td></td><td></td></tr><tr><td>3.</td><td>Basement Parking</td><td>3387.57</td><td>225</td></tr><tr><td></td><td>Total</td><td>5395.00</td><td>358</td></tr></table> 4-wheeler 4125m^2 = 76%, 2-wheeler 1084m^2=20% and cycle=186 m^2=4%	need to be compatible with space provided. Hence not complied.
v)	Basis/norm of space provided for two wheeler and four wheeler in sub-chapter 10.6 of EMP.	It has submitted the corrected table	------
vi)	Fire clearance from the appropriate authority need to be obtained and their observations is to be submitted.	Fire safety recommendation has already been obtained from concerned authority as on date 24.12.2020 with Memo No-8988. As per rule Final Fire clearance from the authority will be obtained after Completion of Construction and submission of compliance report with evidence as per Rule-13 (1) of Odisha Fire Prevention and Fire Safety Rules. Fire recommendation is enclosed as **Annexure – III.**	------
vii)	Plan for solar power with exact calculations to be submitted item wise with % of total power to be used.	Detailed calculation furnished. 5% of solar power to be used.	Not submitted as sought. Hence not complied.
viii)	Breakup percentage of green belt i.e. tree cover and landscape area in absolute value and percentage of the total area. Green belt need to be all sides of the boundary alongside the boundary instead of only North side as indicated. This is to be confirmed and revised layout to be submitted accordingly.	<table><tr><th>Total plot Area (m^2)</th><th>Tree cover area (m^2)</th><th>Landscape area (m^2)</th></tr><tr><td>4940.074</td><td>997.89</td><td>40</td></tr><tr><td>Percentage of total area (%)</td><td>20.2%</td><td>0.8%</td></tr></table> Revised layout map showing green belt on the all sides of the boundary is submitted in Annexure-IV. Separate greenbelt and landscape area is shown in revised layout map and the percentage of greenbelt and landscape area is given above.	------
ix)	Analysis of *E.Coli* content in treated water and fresh water.	Enclosed As **Annexure – IV**.	------

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
x)	DG set location including installation layout and drawing of the chimney its height be submitted.	DG set location including installation layout and drawing of the chimney its height map is submitted in **Annexure-IX.** Stack height of the D.G Set: H = h +0.2 √KVA Where, H = height of the stack attached to the DG set in meter. h = height of the building (39.90 m) KVA = Capacity of the DG set (200 KVA) H = 39.90+0.2√200 = 42.73m	------
xi)	Details of rainwater harvesting and recharge pit designs.	Details of rain water harvesting and recharge pit design layout plan is submitted, which is enclosed as **Annexure - V.**	Rainfall calculated with 100mm/hr and RWHP Calculated accordingly. This needs to be revisited, taking maximum rainfall in 24 hrs in past 30 years based on logical climate data.
xii)	Traffic study by domain expert need to be undertaken at intersecting point with public road.	Traffic study by domain expert is carried out at intersecting point with public road and details are given below- Traffic study was done on 09.11.2021 which was a working day on the Cosmopolis road which is a public road which joins NH-16 on the eastern side of project area. The study location point is on latitude 20º14'56.82" N and longitude on 85º47'23.79" N and the road width is around 7.14m.	Traffic study is not undertaken by any domain expert as advised and findings not compare with IRC norms as to LOS. Hence not complied.
xiii)	Status of NOC from CGWA and permission from WR department, Govt. Of Odisha to submitted for drawl of required quantity of ground water.	NOC from CGWA for drawl of required quantity of ground water has already been received and the same is enclosed as **Annexure-VI.**	------
xiv)	Letter from BMC/ appropriate authority to be submitted that they cannot provide water so that ground water Drawl is unavoidable.	Letter from BMC/appropriate authority is submitted that they cannot provide water so that ground water Drawl is unavoidable which is enclosed as **Annexure-VII.**	------

20. The proposed site was visited by the sub-committee of SEAC on 15.12.2021. The views of the Sub-Committee are as follows:

    i) The Sub-Committee of SEAC, Odisha verified the Environment setting and special features at site as per the Project Proponent is claim through EDS and ADS submitted to Secretary SEAC, Odisha. The Components of the Checklist for Building Projects was verified on ground.

    ii) The PP has now Two (02) options for disposal of Treated Waste water i.e. to Drain number Nine (09) of BMC (Around 10 feet wide) on the Northern direction of the Project and newly constructed 2 mtr wide RCC Drain on the Western side along the public road having RCC slab cover. Since BMC has given Conditional NOC for disposal of Waste water, we may give special condition of disposal of Waste water in the newly constructed RCC Drain after obtaining specific NOC from WATCO/BMC.

    iii) The Project Proponent have agreed to provide Water Treatment Plant, Waste Water Treatment Plant, STP and basic treatment of Storm Water in a OIL Water separated pit in the Project layout.

    iv) Similarly the Treated Sewerage Water can be connected to the 450 mm dia, newly Constructed Sewerage line on the Western Side along the public Road after obtaining specific NOC from WATCO/BMC.

    v) Since all other major Environmental norms are being adhered to by the PP, the Sub-Committee suggests the SEAC for recommendation of EC to the Project.

21. The SEAC observed that the proponent has not complied fully to the information / documents as sought above. They have to comply the following information / documents:

    a) Exact distance of the project site to nearest drain not indicated are sought, including the ROW/Ownership of the land to cover the said distance.

    b) Executive Engineer PHD has regretted to take the load of Sewage at present no communication from BMC is available to the said affect as advised by PHD.

    c) No Permission from the authority of Nala is available. How far is Nala from the project side? And the ownership of the said land also in favor of PP is required provided the authority of Nala agree to take the load.

    d) Taken at the rate of 15 sq.m/ECS uniformly, stilt and basement for ECS Calculation. Basis and reference document to be submitted. Besides, parking to be shown in layout map for four wheelers, two wheelers and bicycles separately with demarcation. ECS need to be compatible with space provided.

    e) Plan for solar power with exact calculations to be submitted item wise with % of total power to be used. Exact calculation has not been given.

    f) Rainfall calculated with 100mm/hr and RWHP Calculated accordingly. This needs to be revisited, taking maximum rainfall in 24 hrs in past 30 years based on logical climate data.

    g) Traffic study is not undertaken by any domain expert as advised and findings not compare with IRC norms as to LOS.

22. The SEAC in its meeting held on dated 05.01.2022 decided to take decision on the proposal after receipt of the information / documents as pointed out at para 21 above.

23. The project 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)	Exact distance of the project site to nearest drain not indicated are sought, including the ROW/Ownership of the land to cover the said distance.	With respect to the present developments around the site, we would like to inform you that a 2m width drain has been constructed by BMC/OWSSB adjacent to road going by the side of the Project Site. Also, sewerage network has already been developed and work is about to be completed. In view of the above developments, we need not to release the sewerage or storm water drain to the nearby Nala, instead we will be discharging the Storm Water drain to the nearby Drain which will be around 1 mtr below the Finished Ground Level of Project and the Treated Sewage after due treatment will be released to the Municipal Sewer after submission of the users fee in Bhubaneswar Municipal Corporation.
ii)	Executive Engineer PHD has regretted to take the load of Sewage at present no communication from BMC is available to the said affect as advised by PHD.	
iii)	No Permission from the authority of Nala is available. How far is Nala from the project side? And the ownership of the said land also in favor of PP is required provided the authority of Nala agree to take the load.	
iv)	Taken at the rate of 15 sq.m/ECS uniformly, stilt and basement for ECS Calculation. Basis and reference document to be submitted. Besides, parking to be shown in layout map for four wheelers, two wheelers and bicycles separately with demarcation. ECS need to be compatible with space provided.	We have revised the provisions of parking of different types of vehicles as per the NBC. The detailed layout drawings showing the parking for different vehicles. The drawings are enclosed for your kind perusal.
v)	Plan for solar power with exact calculations to be submitted item wise with % of total power to be used. Exact calculation has not been given.	We have planned for solar panels to be provided in each tower for provision of 40 KW power to the project. We have planned for providing lighting of streets, stilt parking area and basement parking area, all corridors of buildings and common places. Lux sensors will be installed for automatic sensing the level of light and for making it automatically on / off from the solar source. A dedicated solar unit will be fixed to cater the above needs. The requirement has been calculated to be 40KW and the same is more than 5% of the total load.
vi)	Rainfall calculated with 100mm/hr and RWHP Calculated accordingly. This needs to be re visited, taking maximum rainfall in 24 hrs in past 30 years based on logical climate data.	Rainfall calculated with 100mm/hr. taking maximum rainfall in 24 hours in past 30 years in past 30 years based on logical climate data and RWHP calculated accordingly which is as follows
vii)	Traffic study is not undertaken by any domain expert as advised and	A traffic study was conducted by Domain Expert approved by NABET & Town Planner for 3-days

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	findings not compare with IRC norms as to LOS.	continuously from dt-09.01.2022 to 11.01.2022 from morning 6 o'clock tonight 10o'clock. The following are the points for consideration. 1. The most moving vehicles are 2-wheelers and 4-wheelers. 2. The road connecting from Dumduma to NH-16 is a two-lane road with a divider, each lane having 6 m of width. The total no. of vehicles plying in 16 hours is 14,756, The average per hour is 923 nos. of vehicles. 3. There will be addition of 121 nos. of 4 wheelers and around 79-nos of two-wheelers which includes visiting guests from the proposed project. After including the vehicles of the project will be 14,956 in 16 hours and the average per hour will be increased 935 per hour. There will be an increase of 12 vehicles per hour. Which is very minimal compared to the existing traffic load. 4. The net increase in the traffic load is 1.35% of the total present load at the road connecting to the project site.

Considering the information furnished and the presentation made by the consultant, **M/s Global Tech Enviro Experts PVT. LTD., Bhubaneswar, Odisha** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 7 years with stipulated conditions as per **Annexure – C** in addition to the following specific conditions**.**

i) "Khatian" (Patta after Mutation) for the entire land from the appropriate Revenue Authority with 'Kisam' as Gharabari shall be obtained along with ownership before which construction work shall not start. **The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.**

ii) The Proponent shall obtain permission/NOC from Executive Engg (PHD) and / or from the appropriate authority for disposal of Sewage and treated effluent to the nearest drain without which the Proponent will not start construction work. Also in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be

iii) The proponent shall use solar energy of 5% as proposed.

iv) Trees located within the project area shall be de-rooted and re-rooted / transplanted to alongside the boundary green development area instead of cutting. If there will be any tree cutting required, requisite permission for the same shall be obtained from the Forest Department.

v) To reduce discharge of treated water to open drain, the proponent shall use more water for increased number of trees proposed to be planted in the green belt area & shall also utilize this treated water for car washing, floor washing to minimize the surplus discharge to drain.

vi) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.

vii) **All the compliances submitted/ committed by PP (s) shall be strictly adhered to by them.**

ITEM NO. 07

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. KHUSI REALCON PVT. LTD FOR PROPOSED RESIDENTIAL APARTMENT TOWER-1 (B+S+23), TOWER-2 (B+S+22), TOWER-3 (B+S+22) & TOWER-4 (B+S+22) LOCATED AT MOUZA-PAHALA, TAHASIL-BHUBANESWAR, DIST- KHORDHA OF MR. PRADEEP THACKER (DIRECTOR) - EC

1. The proposal is for Environmental Clearance of M/s. Khusi Realcon Pvt. Ltd for proposed Residential Apartment Tower-1 (B+S+23), Tower-2 (B+S+22), Tower-3 (B+S+22) & Tower-4 (B+S+22) located at Mouza-Pahala, Tahasil-Bhubaneswar, Dist- Khordha of Mr. Pradeep Thacker (Director).
2. The project falls under category "B" or activity 8 (a)-Building and Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. M/s Khusi Realcon Pvt. Ltd. proposes to construct Residential / Commercial Apartments Tower-1(B+S+23), Tower-2 (B+S+22), Tower-3 (B+S+22) & Tower-4 (B+S+22). The project is in Plot No.:- PlotNo: 277, 272, 275, 269, 281, 272/683 Khata No- 352/1194, 352/1204, 352/185, 352/1242, 352/1241, 352/1195 and Kissam – Gharabari of Mouza- Pahal, Bhubaneswar, Dist- Khurda, Odisha.
4. **Location and Connectivity** - The Project Site is a part of the Survey of India Toposheet No. 73H/15 & 73H/16. The proposed site is located at Mouza - Pahala, Tahashil -Bhubaneswar, Dist - Khurda, Odisha. The Geographical co-ordinates of the project site is: Latitude –20^0 20' 16.9" N & Longitude - 85^0 53' 3.5" E. The project site is well connected with National Highway NH-16. The nearest railway station is Vani Vihar Railway station at a distance of approx 6.53 Km & Bhubaneswar Railway Station at a distance 9.5 Km. The nearest airport is Biju Patnaik International Airport at a distance of approx. 15 Km in South-west direction from project site.
5. The site is coming under Bhubaneswar Development Authority. The project comprises of Tower 1 B+S+23, Tower 2 B+S+22, Tower 3 B+S+22 and Tower-4 (B+S+22).
6. The total plot area is 15565.82 Sqmt with total built-up area 84372 Sq.mt.
7. The Building Details of The Project:

Particular	Proposed
Project Name	Khushi Realcon Pvt. Ltd.
Plot Area	15565.82 Sqm.
Ground Coverage	5589.69 sqm (39.51 %)
FAR (Floor Area Ratio)	4.07
Built up Area	84372.2 sqm
Maximum Height	78.85 m
Total Parking Area	19000.9 sqm
Green Belt Area	3421.6 sqm (21.99 %)

Particular	Proposed
Maximum No. of Floor	Tower-1(B+S+23), Tower 2(B+S+22), Tower-3(B+S+22) Tower-4(B+S+22)
Power/Electricity Requirement & Sources	Total - 2620 KW Solar - 83 KW CESU - 2537 KW
No. of DG sets	4x700 KVA
Water requirement	257 KLD (Fresh)
Sewage Treatment Plant	STP Capacity - 350 KLD
Estimated Population-Residential, Commercial, Floating/visitors	3090 nos.

8. **Water requirement**: The total water requirement for the project will be approx. 367 KLD, out of which domestic water demand is 245 KLD and commercial is 12 KLD. The fresh water requirement will be 257 KLD. Fresh water will be extracted from ground water through borewell.
9. **Waste water details**: The project will generate approx. 328 KLD (sewage load) of wastewater. The wastewater will be treated in an onsite STP of 350 KLD capacity. Out of which 312 KLD will be recycled within the project for flushing (129.0 KLD), landscaping (14 KLD), dust suppression (12 KLD) and 157.0 KLD in non monsoon period and 183.0 KLD in monsoon period will be discharged to drain.
10. **Power requirement**: The daily power requirement for the proposed complex is preliminarily assessed as 2620 KW (Solar System- 83 KW & CESU – 2537 KW). In order to meet emergency power requirements during the grid failure, there is provision of 4 nos. of DG sets having 700 KVA capacities with DG set stack height is 40m for power back up in the Residential/Commercial Building Project. Total Energy saving from renewable energy = 133.39 KW i.e 5.1 % is contributed from solar energy.
11. **Rain Water Harvesting**: Rain Water will be harvested and recharge through 12 recharge pits from the plot area.
12. **Parking Requirement**: Total parking area required 19000.9 m^2 Sq.mt./728 ECS will be provided.
13. Fire fighting Installations: Fire fighting system will be installed as per recommendation of the Fire fighting Officer, Odisha and as per the guideline of NBC (part-4).
14. **Green Belt Development**: Out of the total area, green belt will be developed over an area of 3421.6 sqm (21.99% of the plot area).
15. **Solid Waste Management**: From the residential complex solid waste inform of food wastes from kitchen and miscellaneous wastes will be generated @ 0.45 kg/person/day, which will be about 1224.0 kg/day. The generated solid wastes from the residential complex will be segregated as biodegradable and non-biodegradable. This will be collected in separate-coloured bins. Proper waste management practices will be adopted during the collection, storage and disposal of the generated solid wastes and construction and demolition wastes.

S. No.	Category	Counts (heads)	Waste generated (kg/day)
i)	Residents	2720 @ 0.45 kg/day	1224.0

ii)	Commercial	270 @ 0.15 kg/day	40.5
iii)	Club	150 @ 0.15 kg/day	22.5
iv)	STP sludge		0.16
TOTAL SOLID WASTE GENERATED			**1287.16 kg/day**

16. The total population of project will be 3090 persons.

17. The estimated project cost is ` 30 Crores and cost for EMP is ` 0.75 Crores.

18. The project proponent along with the consultant **M/s Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar** made a detailed presentation on the proposal on **01.09.2021**.

19. The SEAC in its meeting held on dated **01.09.2021** decided to take decision on the proposal after receipt of the following information / documents from the proponent followed by visit of the Sub-Committee of SEAC to the site.

i) Detailed land schedule with kissam of land in tabulated form. Whether land kissam has been converted to “Gharabari”, if so, detailed document to be submitted.

ii) Layout of drainage system and exact distance of project site to nearest drain and outfall of drain.

iii) Status of NOC from BMC/ appropriate authority for the above drain for sewage disposal.

iv) Proposal to increase in usage of treated waste water in premises and thereby reducing quantity of discharge to drain. Revised water balance to be submitted.

v) Surface runoff management plan with details of surface water to be used in the project.

vi) Percentage of Rain water Harvesting /recharging vis-à-vis fresh water consumption according to norms of CGWA be submitted.

vii) Details of DG sets to be installed at the suitable places after due consideration of pre-dominant wind direction to avoid air pollution from entering the dwelling house of the colony. DG set location w.r.t wind direction, stack height with layout / installation and drawing of the stack / exhaust pipe be submitted, considering cumulative capacity(s) of all DG sets and height of the tallest tower.

viii) Adequate parking in terms of ECS for dwelling units, floating population & visitors with locations including compatibility with the proposed parking space provided needs to be submitted in tabular form.

ix) Fire clearance from the appropriate authority need to be obtained and their observations is to be submitted.

x) Plan for solar power with exact calculations to be submitted.

xi) Since, this being a flood prone/ water lodging zone, detailed SOP for proper management of the same to be submitted.

xii) Permission status from Water Resources Deptt. for usage of ground water.

xiii) Details of solid waste management.

xiv) Separate compartments for storing of storm water and sewage water.

xv) Findings of traffic study undertaken at point of intersection with NH Vis-a vis the norm in terms of PCU and traffic decongestion measures recommended if any be submitted.

xvi) Proposal to install 2 DG sets of higher capacities instead of four DG sets of capacity 4x700 KVA.

xvii) Proposal to install electric charging points for Electrical Vehicles in basement parking.

20. The proponent was requested vide letter no. 643 (3)/SEAC-Misc-28, dated 20.09.2021 to furnish the information / document as decided in the SEAC meeting held on 01.09.2021. But, the proponent has not furnished the same.

21. The Sub-Committee of SEAC visited the site on 07.10.2021 and the observations of Sub-Committee are as below:

a) The environment consultant was not present during the visit and hence some of the documents could not be shown and explained. However, the proponent was present for deliberation.

b) The drain map (inside till connecting the main drain) could not be exhibited, hence proponent may be informed to submit the same showing the ETP, drain layout, rain water harvesting charge pits etc.

c) The Chimney positioning although is at one corner of the land, the height is less (as informed about 30 mt compared to the building height which is much more. Although currently, the nearby site is full of trees, this may be a point of concern in future. The proponent needs to make changes to increase the height of outlet to overcome the above.

d) As per BMC letter about 800+ mt drain needs to be constructed by the proponent. The flow of water from project site and construction of drains are in opposite direction. There is no drain of BMC in the direction of flow of water for a longer distance. Further, proposed drain construction area is occupied by others at some places, trees and electric lines are also there. In this regard, the proponent needs to submit: Letter from appropriate authority having the ownership of land and giving right for the same construction and also use for discharging the treated effluent. Clear letter of using for discharge of treated effluent is required. Further, how the construction of drain in opposite direction is going to serve the purpose needs to be brought out from the appropriate authority along with construction process as trees, electrical poles etc are already there.

e) Parking: The proponent needs to submit a table showing the ECS, no of apartments, 2-wheeler and 4-wheeler parking slots, floating and visitors parking etc provided by them. There should be Minimum 10% of total ECS for Addl parking for visitors and floating population.

f) Details of calculation of solar energy to be used to arrive the % of total power consumption needs to be submitted.

g) Traffic study needs to be carried out by a reputed institute and submitted.

h) Although the land level is not much down than the road level, proponent may submit an explanation about mitigation measure for water ingression in case of heavy rainfall considering the location of the area.

22. The SEAC in its meeting held on dated 08.11.2021 decided to take decision on the proposal after receipt of the information/ documents from the proponent as requested vide letter no. 643

(3)/SEAC-Misc-28, dated 20.09.2021 and as desired by the Sub-Committee of SEAC as per **Para - 21** above.

23. The project proponent has furnished the information/ documents as requested vide letter no. 643 (3)/SEAC-Misc-28, dated 20.09.2021 and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
i)	Detailed land schedule with kissam of land in tabulated form. Whether land kissam has been converted to "Gharabari", if so, detailed document to be submitted.	Total Land Area of proposed project is 15,565.8 Sqm/1,67,548.87 Sqft. (3.84 Acres) and the Kissam of land is Gharabadi. Detail Land documents with kissam of land are attached in **Annexure-1**.
ii)	Layout of drainage system and exact distance of project site to nearest drain and outfall of drain.	Layout plan showing drainage system is attached in Annexure-2. The nearest drain is Natural Drain which is 1.5km from project site. The drain photo is attached in **Annexure-3**.
iii)	Status of NOC from BMC/ appropriate authority for the above drain for sewage disposal.	Drainage Plan of the proposed building has been approved by Bhubaneswar Municipal Corporation (BMC) vide letter no.1814, dated 07.01.2022. BMC letter is attached in **Annexure-4**.
iv)	Proposal to increase in usage of treated waste water in premises and thereby reducing quantity of discharge to drain. Revised water balance to be submitted.	Total Domestic and Flushing Water Requirement of the proposed project are 257.O KLD and 129.0 KLD respectively. The treated water is re-used for flushing purpose, car washing purpose and gardening purpose (in non-monsoon period) and surplus treated water is discharged into BMC drain adjacent to site. The detailed Water Balance during Non-monsoon & monsoon season is given in **Annexure-5.**
v)	Surface runoff management plan with details of surface water to be used in the project.	Instead of traditional percolation pits, we are providing bore well of 200mm dia, with percolation allowed at the aquifer level. Where we are drawing water for residential use. 12nos. of 17.7 Cu.mtr. each Rainwater Percolation pits are proposed. Hence total proposed volume of pits is 213.0 Cu.mtr. Detailed design calculations with section of percolation pit as per BDA and BMC norms provided in **Annexure-6**.
vi)	Percentage of Rain water Harvesting /recharging vis-à-vis fresh water consumption according to norms of CGWA be submitted.	We have recharge almost 2L3 cum/day water through 12 nos. of recharge pits to ground which is equivalent to 43olo of total fresh water withdrawal.
vii)	Details of DG sets to be installed at the suitable places after due consideration of pre-dominant wind direction to avoid air pollution from entering the dwelling house of the colony. DG set location w.r.t wind direction, stack height with layout / installation and drawing of the stack	For required backup power, 2 nos. of DG Sets are proposed. The exhaust shall be provided as per pollution norms laid by CPCB. Since our DG Sets location are along the compound wall, we proposed the vent pipe along the building wall to highest point of the building & vent is 6.35 m in highest point.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	/ exhaust pipe be submitted, considering cumulative capacity(s) of all DG sets and height of the tallest tower.	H = 78.85 + 0.2√1010 = 78.85 + 0.2 x 31.78 = 78.85 + 6.35 = 85.2 m ≈ 86 m Height of the DG Set stack is 86m. Layout drawing of DG sets is attached in **Annexure -7**.
viii)	Adequate parking in terms of ECS for dwelling units, floating population & visitors with locations including compatibility with the proposed parking space provided needs to be submitted in tabular form.	As per BDA, the parking requirement for Residential housing is 30olo. Accordingly the parking space required for residential area is 18998.46 sqm which is equivalent to 634 ECS. So the total ECS is provided for residential building is 663 ECS. ECS provided for floating population like visitor to residential houses & visitor is 65 ECS. Detail Parking area calculation in ECS is attached in **Annexure-8**.
ix)	Fire clearance from the appropriate authority need to be obtained and their observations is to be submitted.	Recommendation letter for Fire Safety Clearance is given in **Annexure-9**.
x)	Plan for solar power with exact calculations to be submitted.	The electricity installed capacity for this project is 2620.0 KW, accordingly to adhere to the 5.1o/o (133.4 KW) norms of solar energy we have planned to install Photovoltaic cell Frame shape of 80.0 sqm to be located on the terrace area, The solar power will be mainly used for open area lighting, common corridor lighting & corridor lighting. Total Renewal energy is 5.1 % which is generated from solar system. Detail Calculation is attached in **Annexure-10**.
xi)	Since, this being a flood prone/ water lodging zone, detailed SOP for proper management of the same to be submitted.	The nearest gauging station in the upstream is Naraj (IB). The HFL at Naraj is 27.6Om which is recorded in 31-A-ug- 82, Flood data of Naraj (IB) is given in Ahnexure-11. The project site is in the downstream, but as per the flood vulnerability Map, the site is not located in the flood prone area. (Source - BMTPC).
xii)	Permission status from Water Resources Deptt. for usage of ground water.	Ground Water Clearance has already obtain from Central Ground Water Authority vide NoC no, CGWA/NOC/INF/ORIG /2027/ L3625, dated 03.17.2021, NoC copy is attached in **Annexure-12**.
xiii)	Details of solid waste management.	Total 1287.L6 kg/day Solid Waste will be generated for proposed project. Solid Waste will be collected in Color bins and it will be segregated in Organic Waste Converter. Detail Solid Waste proposal is given in **Annexure-13**.
xiv)	Separate compartments for storing	Two separate drain will be provided for

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	of storm water and sewage water.	Storm Water & Sewage Water. Storm Water & Treated Water will be discharge different location. Drainage Plan is already given in **Annexure-2**.
xv)	Findings of traffic study undertaken at point of intersection with NH Vis-a vis the norm in terms of PCU and traffic decongestion measures recommended if any be submitted.	Traffic Study report has been vetted by M/s Kalinga Institute of Industrial Technology (KIIT) and the Traffic Study Report are attached in **Annexure-14**.
xvi)	Proposal to install 2 DG sets of higher capacities instead of four DG sets of capacity 4x700 KVA.	We have proposed 2 nos. of DG Sets of capacity 1010 KVA each instead of 4x70O KVA"
xvii)	Proposal to install electric charging points for Electrical Vehicles in basement parking.	We will install Electric Charging points in Basement Parking for Electric Vehicles.

24. The proponent has furnished the compliance to the observations of the Sub-Committee of SEAC during the site visit conducted on 07.10.2021 as follows:

Sl. No.	Observations of Sub-Committee of SEAC	Compliance furnished by the proponent
a)	The environment consultant was not present during the visit and hence some of the documents could not be shown and explained. However, the proponent was present for deliberation.	The environment consultant was suffering from COVID & Hence was not present during the site visit.
b)	The drain map (inside till connecting the main drain) could not be exhibited, hence proponent may be informed to submit the same showing the ETP, drain layout, rain water harvesting charge pits etc.	The drainage map showing STP Area, Rain Water Harvesting Structure, Internal Drain Layout & Final Discharge point to the Main Drain is attached in **Annexure-2.**
c)	The Chimney positioning although is at one corner of the land, the height is less (as informed about 30 mt compared to the building height which is much more. Although currently, the nearby site is full of trees, this may be a point of concern in future. The proponent needs to make changes to increase the height of outlet to overcome the above.	For required backup power, 2 nos. of DG Sets are proposed. The exhaust shall be provided as per pollution norms laid by CPCB. Since our DG Sets location are along the compound wall, we proposed the vent pipe along the building wall to highest point of the building & vent is 6.35 m in highest point. H = 78.85 + 0.2√1010 = 78.85 + 0.2 x 31.78 = 78.85 + 6.35 = 85.2 m ≈ 86 m Height of the DG Set stack is 86m. Layout drawing of DG sets is attached in **Annexure -7**.
d)	As per BMC letter about 800+ mt drain needs to be constructed by the proponent. The flow of water from project site and construction of drains are in opposite direction.	Drainage Plan of the proposed building has been approved by Bhubaneswar Municipal Corporation (BMC) vide letter no. \8L4, dated 07.01.2022. The existing drain is 1500 m away from the proposed project

Sl. No.	Observations of Sub-Committee of SEAC	Compliance furnished by the proponent
	There is no drain of BMC in the direction of flow of water for a longer distance. Further, proposed drain construction area is occupied by others at some places, trees and electric lines are also there. In this regard, the proponent needs to submit: Letter from appropriate authority having the ownership of land and giving right for the same construction and also use for discharging the treated effluent. Clear letter of using for discharge of treated effluent is required. Further, how the construction of drain in opposite direction is going to serve the purpose needs to be brought out from the appropriate authority along with construction process as trees, electrical poles etc are already there.	site. The ownership of the land (2000 m) is belongs to Public Works Department & kissam of land is Nayan Jodi. BMC Drainage Division in assistance with the enforcement squad of BMC will demolish encroachments if any before construction of the drain by the proponent. We are also request to BMC for provide NoC to construct a drain approx. 1500m from our plot to Prachi Dhara near Highway Honda. Copy of Letter to BMC is attached in **Annexure-15**. The copy of their Record of Rights along is attached in Annexure-16 and CDP map showing drain plots is attached in **Annexure-17**.
e)	Parking: The proponent needs to submit a table showing the ECS, no of apartments, 2-wheeler and 4-wheeler parking slots, floating and visitors parking etc provided by them. There should be Minimum 10% of total ECS for Addl parking for visitors and floating population.	As per BDA, the parking requirement for Residential housing is 30o/o. Accordingly the parking space required for residential area is 18998.46 sqm which is equivalent to 634 ECS. So the total ECS is provided for residential building is 663 ECS. ECS provided for floating population like visitor to residential houses & visitor is 65 ECS. Detail Parking area calculation in ECS is attached in **Annexure-8**.
f)	Details of calculation of solar energy to be used to arrive the % of total power consumption needs to be submitted.	The electricity installed capacity for this project is 2620.0 KW, accordingly to adhere to the 5.1% (133.4 KW) norms of solar energy we have planned to install Photovoltaic cell Frame shape of 80.0 sqm to be located on the terrace area. The solar power will be mainly used for open area lighting, common corridor lighting & corridor lighting. Total Renewal Energy is 5.1% which is generated from solar System. Detail Calculation is attached in **Annexure-10**.
g)	Traffic study needs to be carried out by a reputed institute and submitted.	Traffic Study report has been vetted by M/s Kalinga Institute of Industrial Technology (KIIT) and the Traffic Study Report is attached in **Annexure-14**.
h)	Although the land level is not much down than the road level, proponent may submit an explanation about mitigation measure for water ingression in case of heavy rainfall considering	The roof of the Upper Basement is above the existing road level. Project internal road level is approx. 1.0 m above the existing public road. All basement entry will be covered above. The project will have storm water collection & discharge network

Sl. No.	Observations of Sub-Committee of SEAC	Compliance furnished by the proponent
	the location of the area.	pipelines. Storm water collecting drain at the entry, sumps & pump out arrangement as well.

Considering the information furnished and the presentation made by the consultant, **M/s Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 7 years with stipulated conditions as per **Annexure – D** in addition to the following specific conditions**.**

i) "Khatian" (Patta after Mutation) for the entire land from the appropriate Revenue Authority with 'Kisam' as Gharabari shall be obtained along with ownership before which construction work shall not start. **The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.**

ii) The Proponent shall obtain permission from the appropriate authority for discharge of excess treated water if any to the nearest existing drain. Also in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be. For construction of drain, the land shall be made encroachment free by the appropriate authority and drain shall be constructed thereafter with required permission including permission to discharge treated water. No construction of building to be started without making the drain ready and verified & permitted by the appropriate authority.

iii) The proponent shall use solar energy of 5% as proposed with installation of PV cell of required capacity.

iv) Trees located within the project area shall be de-rooted and re-rooted / transplanted to alongside the boundary green development area instead of cutting. If there will be any tree cutting required, requisite permission for the same shall be obtained from the Forest Department.

v) To reduce discharge of treated water to open drain, the proponent shall use more water for increased number of trees proposed to be planted in the green belt area & shall also utilize this treated water for car washing, floor washing to minimize the surplus discharge to drain.

vi) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.

vii) **All the compliances submitted/ committed by PP (s) shall be strictly adhered to by them.**

ITEM NO. 08

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR RARBAHAL GRAPHITE MINES OVER AN MINING LEASE AREA OF 20.675 HA LOCATED AT VILLAGE- RARBAHAL, TAHASIL- BELPARA, DIST- BALANGIR OF SRI ANTARYAMI MISHRA - EC

1. This is a proposal for Environmental Clearance for Rarbahal Graphite Mines over a mining lease area of 20.675 ha located at Village- Rarbahal, Tahasil- Belpara, Dist- Balangir of Sri Antaryami Mishra.

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. ToR for this project has been granted by SEAC vide letter No. 849/SEAC/157 dated 12.10.2018. Public hearing was conducted on 22.01.2020 at Rarbahal Graphite Mines of village Rarbahal in Balangir district. Consent to establish from OSPCB, vide letter No. 3738/III CON(NOC)/34/2019-20, Dtd. 08.10.2020, has been obtained.
4. This is a proposal for graphite mining project with production capacity of 0.0138 Million Tonnes/Annum of Graphite Ore over mining lease area of 20.675 ha.
5. The mine lease is located at Plot No. 46, Village Rarbahal, Tahasil- Belpara, District Balangir, Odisha. The latitude 20° 34’ 08” N to 20° 34’ 27” N and longitude 83° 02’ 10” E to 83° 02’ 29” E. The highest altitude is of 258 mRL and the lowest altitude is 252 mRL. The area falls in the Survey of India Topo -sheet no. 64 P/ 2, 64 P/3, 64 L/14 & 64 L/15.The lessee is Sri Antaryami Mishra.
6. The lease area 20.675 ha is Government Non- forest land. The mining lease over an area of 20.675 ha was granted vide order of Dept. of Mines & Steel G.O. No.10334/SM/II(GR)SM - 27/2017 dt.15.12.2017 (expiry on 14.12.2067) for fifty years in favour of Sri Antaryami Mishra. Due to adverse marketing conditions there was no mining in the lease area till the end of first lease period.
7. Thereafter, the renewal of mining lease was granted to the lessee on over an area of 20.675 ha. for a period of 15 years from 05.03.2005 to 04.03.2020. Now, as per Rule 8 A (3) of MMDR (Amendment) Act 2015 lease period is valid up to 04.03.2040.
8. The mining plan of Rarbahal Graphite Mining lease in Village - Rarbahal, District – Balangir, State – Odisha was approved under Rule 23 of MCDR, 2017 by the Regional Controller of Mines, Odisha Region, Indian Bureau of Mines vide letter No. MP/OTFM/04-ORI/BHU/2018-19/518 dated 16.05.2018.
9. **Location and Connectivity** - The topography of the area represents a mild sloping terrain. General slope of the area is from West to East. Applied M.L area can be approached from Balangir (district head quarter) covering a distance of 64 km which is the sum of 38 km SH between Balangir and Patnagarh, 13 km SH between Patnagarh and Mandal square, 8 km metalled road between Mandal square & Mandal, 4 km metalled road between Mandal & by pass to Rarbahal and 1 km kuchha road between by pass to Rarbahal P.L area via village Rarbahal. Lease area is also approachable from Belpara PS town covering a road distance of 12 km. The nearest railway station is at Kantabanji on the Titlagarh – Raipur rail track of the East-Cost Railway which is 25 km from the lease area. The nearest air port is at Bhubaneswar at a distance 390 K.M from the project site.
10. The total Mineable reserve is 96,799 MT. The ore occurs at shallow depth and rocks are mostly weathered and soft, hard in patches only. Graphite ore exposed in the existing quarry inform of small veins, pockets, lenses & vein etc. Therefore, mining will be done on single shift basis, by open cast semi mechanized method of mining with the help of excavators.
11. Mining will be done in a top downward manner by developing 3m high & 3m wide bench. Graphite from the bench floors will be transported manually by head load to the ore stacking & sorting site. The quarry will be developed between the RL 257.6 m and RL 222.2 m. Overall quarry slope angle will be kept at around 60° with the horizontal.

12. Excavation will be taken up on the north western side of the lease area. Average annual production during the ensuing plan period will be 13023 tonnes. Average working days during the year are about 300 days. Average daily production is about 43.4 tones. No drilling and blasting will be done for loosening of hard rock mass during mining operation.
13. During the development work of 2018-19 to 2022-23, the top soil in the tune of 93874.84 m^3 will be spread on the waste dump and preserved for future plantation work.
14. During current scheme of mining (2018-19 to 2022-23), the volume of the waste/ OB generated (including side burden waste) will be 476744.6 m^3. Thus the total new volume of waste generated during the coming years that is till the tentative end of the life of the mine, shall be 544920 m^3. Therefore, the ultimate capacity of the waste dump at the end of the life of the mine shall be 544920 m^3. The dumps shall be kept in terraces in a regular fashion. It is proposed to dump in south-western of the quarry. The ultimate capacity of proposed dump will be 544920 m^3, with a height of 20 m having two terraces. Development of garland drain and retention wall will be done simultaneously with the development of dump.
15. Machinery used for mining purpose will be excavator, loader, tippers, sprinkler, jeep etc.
16. **Water Requirement** - Total 10 KLD per day water will be required for overall purposes. 5 KLD water for drinking and domestic purposes, plantation, water sprinkling on land roads & agriculture purposes, 5 KLD for beneficiation of ore. Drinking water will be collected from a bore well and the rest water will be collected from the mining pit.
17. The maximum strength of workers will be 26 nos. Most of the workers will be hired from local villages. Besides there will be indirect employment for transportation, canteen, repair shop, security etc. Since there is no habitation in the lease area therefore no resettlement will be necessary. During the plan period 6000 plants will be planted in 10.06 m^2. The entire plantation will be done on the 7.5 m safety barrier. The project cost is about ` 80 Lakhs.
18. The extracted ore will be dispatched to secondary washing plant located at village- Dungripalli, Dist-Balangir at a distance of 25 Km. If in case the plant is not established as per the proposal than the ROM will be sent directly to the washing plant located at Village-Dungripalli of district Balangir.
19. **Green Belt** - Total green area at the end of conceptual period is 19.29 ha land. No. of trees proposed to be planted = 6000 trees. Plantation of wide leaf trees, creepers, tall grasses around quarry sites, waste dumps, roads, colony and other surrounding barren zones.
20. Baseline data collection for the project has been conducted from period March – 2018 to May 2018.
21. The total estimated cost of the project is approximately INR ` 0.8 Crores.
22. The consultant **M/s Green Circle. INC., Vadodara (Gujarat)** along with the proponent have made a detailed presentation on the EIA/EMP report on 19.02.2021.
23. The SEAC in its meeting held on dated 19-02-2021 decided to take decision on the proposal after receipt of certain information / documents from the proponent. Now the project proponent has furnished compliance as desired by SEAC and same has been verified as follows:

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th><th>Views of SEAC</th></tr>
<tr><td>(i)</td><td>Plot wise Kissam of land duly certified by concerned Tahasildar.</td><td>The leasehold area comprises of private agricultural land and Govt. wasteland (Attamamuli, Attaunhari, Malmamuli, Bernamamuli, Anyanya, Bagayat, Mundia & Patita). There are no forest lands in the lease area. The pre – operational land use of the area is given in the Table below.

Land use of the P.L Area as per revenue departments is as follows:
<table>
<tr><th rowspan="2">Name of the Village</th><th rowspan="2">Ownership</th><th colspan="2">Type of Land</th><th>Area</th></tr>
<tr><th>English Name</th><th>Oriya Name (As per land schedule)</th><th>In acres</th></tr>
<tr><td>Rarbahal</td><td>Private</td><td>Agricultural fields</td><td>Attamamuli, Attaunhari, Malmamuli, Bernamamuli,</td><td>50.27</td></tr>
<tr><td></td><td>Govt. waste land (Reserved)</td><td>Waste land</td><td>Mundia & Patita</td><td>0.82</td></tr>
<tr><td>Total</td><td></td><td>57.526</td><td></td><td>51.09</td></tr>
</table>
The land document is attached with duly certified by Tahasildar. Annexure - 1</td><td>1. Tahsildar shall certify that no DLC land is involved (in Govt. Ownership).

2. Kisam of the land is Agricultural and not concerted to Mining & 98.4percent of land is private Agricultural land.Neither ownership nor lease deed/ registered agreement is available. This has to be complied.</td></tr>
<tr><td>(ii)</td><td>Copy of agreement between owners of private land for company.</td><td>Agreement between owners of private land for company is attached as Annexure -2</td><td></td></tr>
<tr><td>(iii)</td><td>Details of silt management, water logging management and Waste Water Management, besides discharge / disposal management with SOP / mechanism of water accumulated during rainy season in</td><td>Attached as Annexure -3</td><td>No management or SOP is submitted.</td></tr>
</table>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	mines pit.		
(iv)	Proposal for reduction of ground water usage.	Ground water as well as surface water will not be affected by the proposed mining operations. Surface run off will be protected by rain water drains and settling tanks around the quarry. (i) Drinking water will be supplied through tanker. (ii) Total water requirement is 10 KLD for process and drinking purpose and dust suppression. (iii) All around the quarries and dumps garland drain will be provided with settling tanks. (iv) The surface runoff water of rain will be channeled in a proper way as indicated in surface drainage plan.	Compliance does not relate to query.
(v)	Details of Zero discharge proposal.	Attached as **Annexure -3**	Compliance does not relate to query.
(vi)	Slope study report to be undertaken both for mine and OB / waste dump by domain expert and blasting study as well.	Attached as **Annexure -4**	No study/ or report is submitted.
(vii)	Details of waste management i.e. composition and nature of waste generated, tabulated form showing year wise waste generation, usage and storage i.e. complete waste / dump / OB management.	Attached as **Annexure -5**	Not complied.
(viii)	Documents related to permission letter from WR Deptt,	Attached as **Annexure -6**	Letter DTD back 2019 addressed to WR department is enclosed and

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	Govt. of Odisha respectively for drawl of ground water.		status as of today is not available.
(ix)	Status of physical condition and maintenance of approach roads from lease area to washing plant. NOC and maintenance of approach road from concerned authority.	Secondary washing plant located at village-Dungripalli, Dist-Balangir at a distance of 25 Km. If in case the plant is not established as per the proposal than the ROM will be sent directly to the washing plant located at Village- Dungripalli of district Balangir. This is a small mine whose average daily production level is 43.4 tons. The existing number of vehicles per day is nil. Once the operations start around two trucks will be engaged per day for transportation of mineral along with few cars and 2-wheelers. The ore raised from the mines will be transported to the various consuming industries by road or rail depending upon the distance involved & the network available with the consumer. If intended for transport by rail; the ore will be transported by truck to the nearest railway station Kantabanji at a distance of about 25 kms from the lease area & from there by rail. No village road will be disturbed for the transportation.	NOC is not available.
(x)	Possibility for water usage from River Lanth, to reduce load on ground water usage.	Ground water as well as the surface water will not be affected by the proposed mining operation. Surface run off will be protected by rain water drains and silt settling tanks around the quarry. (i) Drinking water will be supplied through tanker. (ii) Total water requirement is 10 KLD for process and drinking purpose and dust suppression. (iii) All around the quarries and dumps garland drain will be provided with settling tanks. The surface runoff water of rain will be channeled in a proper way as indicated in surface drainage plan.	Not complied.
(xi)	Total Plantation should be carried out within 2 years and maintenance to be continued in remaining years. Trees present in mining area should be uprooted & transplanted in safety zone.	Noted Details of plantation given in **Annexure - 7**	Not complied.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
(xii)	Sludge disposal from ETP and settling tanks, rain water harvesting and usage /recharge / recycling of it to reduce the use of ground water.	Ground water as well as the surface water will not be affected by the proposed mining operation. Surface run off will be protected by rain water drains and silt settling tanks around the quarry. (i) Drinking water will be supplied through tanker. (ii) Total water requirement is 10 KLD for process and drinking purpose and dust suppression. (iii) All around the quarries and dumps garland drain will be provided with settling tanks. The surface runoff water of rain will be channeled in a proper way as indicated in surface drainage plan.	Difficult to infer from the compliance w.r.to observation.
(xiii)	Detailed proposal for Rain water Harvesting.	**Ground Water Recharge for Mine Lease Area** The rainfall infiltration method is one of the best methods suggested in ground water assessment methodology of CGWB 2007 for first approximation of ground water resources of an area that receives good amount of rainfall. The study area consisting of 20.675 ha receives about 1052 mm rainfalls annually. Since the area is occupied by the hard, massive rock, rainfall infiltration is slow, the standard infiltration factor 10% of the total annual rainfall as mentioned in CGWB 2017 report is assumed. Annual Ground Water recharge =2175.01 cum 20.675 x 1.052 x 0.1 There are numbers of water bodies like rain fed ponds, dug wells and tube wells within the core and buffer zone.	Not complied.
(xiv)	Copy of modified mining plan incorporating progressive mine closure plan.	Enclosed	Not complied.
(xv)	Actual mineral deposit in 10 ha. Justify why they will require more than 20 ha. of land for mining.	Attached as **Annexure-8**	Not complied.
(xvi)	Occupational Health Study report, including identification of occupational	Attached as **Annexure-9**	Not complied.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	health hazards for employees as well as neighboring habitation, remedial measures for it and periodical health checkups, at least once in six months by occupational health expert.		
xvii)	Detailed surface runoff management plan.	The rainfall infiltration method is one of the best methods suggested in ground water assessment methodology of CGWB 2007 for first approximation of ground water resources of an area that receives good amount of rainfall. The study area consisting of 20.675 ha receives about 1052 mm rainfalls annually. Since the area is occupied by the hard, massive rock, rainfall infiltration is slow, the standard infiltration factor 10% of the total annual rainfall as mentioned in CGWB 2017 report is assumed. Annual Ground Water recharge = 20.675 x 1.052 x 0.1 = 2175.01 cum There are numbers of water bodies like rain fed ponds, dug wells and tube wells within the core and buffer zone.	Not complied.
xviii)	Justify the lease period is 50 years when life of mine is less than 50 years.	During the Prospecting License the state govt was time bounded by two years , during that period we did not fully explore the mine, when the mines comes into the operation as per the approved mining plan we will explore by drilling the total area , accordingly it is difficult to calculate the life of mines. However after complete the exploration we may surrender the no mineralized zone area after back filling and plantation.	Compliance is not scientific.
(xix)	Project proponent may submit a certificate from concerned Executive Engineer, Water Resources Deptt, Govt.	Attached as **Annexure-6**	

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	of Odisha that proposed mining will not interfere or cause hindrance to ongoing irrigation project.		
(xx)	Proceedings of public hearing to be submitted and actions proposed to be taken in physical terms for the environmental issues raised.	Attached as **Annexure-10**	
(xxi)	SOP for zero discharge of slit and waste water to Agricultural.	Attached as **Annexure-3**	Not in place as sought.

24. The SEAC in its meeting held on dated 05.10.2021 decided to take decision on the proposal after receipt of the compliance to the observations / views of the SEAC at para 23 above. The project proponent has furnished the compliance and the SEAC verified the same as follows:

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th></tr>
<tr><td>i)</td><td>Plot wise Kissam of land duly certified by concerned Tahasildar.</td><td>The leasehold area comprises of private agricultural land and Govt. wasteland (Attamamuli, Attaunhari, Malmamuli, Bernamamuli, Anyanya, Bagayat, Mundia & Patita). There are no forest lands in the lease area. The pre – operational land use of the area is given in the Table below.
Land use of the Proposed Lease
. Area as per revenue departments is as follows:
<table>
<tr><th rowspan="2">Name of the Village</th><th rowspan="2">Ownership</th><th colspan="2">Type of Land</th><th colspan="2">Area</th></tr>
<tr><th>English Name</th><th>Oriya Name (As per land schedule)</th><th>In acres</th><th>In hectare</th></tr>
<tr><td>Rarbahal</td><td>Private</td><td>Non Agricultural fields</td><td>Attamamuli, Attaunhari, Malmamuli, Bernamamuli,</td><td>50.27</td><td>20.343</td></tr>
<tr><td></td><td>Govt.</td><td>Waste</td><td>Mundia &</td><td>0.82</td><td>0.332</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td></td><td>waste land (Reserved)</td><td>land</td><td>Patita</td><td></td><td></td></tr>
<tr><td>Total</td><td></td><td>57.526</td><td></td><td>51.09</td><td>20.675</td></tr>
</table>
The land document is attached with duly certified by Tahasildar. Annexure - 1
</td></tr>
<tr><td>ii)</td><td>Copy of agreement between owners of private land for company</td><td>We submitting a undertaking that we will provide land holders consent in the form of agreement between land holders and lessee before the mining operation.
Undertaking is attached as Annexure-2.</td></tr>
<tr><td>iii)</td><td>Details of silt management, water logging management and Waste Water Management, besides discharge / disposal management with SOP / mechanism of water accumulated during rainy season in mines pit.</td><td>❖ SOP FOR MANAGEMENT OF SILT, WATER LOGGING AND WASTE WATER GENERATION
The SOP would be
1) There will be garland drain around the quarry of leases area to arrest the runoff water in to the pit.
2) These drains will be connected to drains to be made all along the internal roads which will carry away these run off water along with the water coming from the settling tanks of the dumps to the natural drainage after passing through the settling tank for settling of suspensions.
3) The width and depth of these drains would be around 1m and 0.75 m respectively. Check dams of 0.5m height will be made within these drains in every 50m to lower the velocity and arrest part of silts of the flowing water.
4) The settling ponds, garland drains and the up-dip portion of the check dams will be regularly desilted.
5) One 5HP diesel operated water pump will be kept ready near the operating quarries in each leasehold for removal of accumulated rain water from the pits. This water will also be channeled through the drains along the internal roads to the natural drainage after passing through the settling ponds.
6) As the discharged water from the pits, dumps will be routed through settling tanks the overflowing water to the natural drainage will have almost no silt. The settling ponds will be cleaned regularly and the silt from these will be utilised in the plantation programs by lessee.
7) Being a hilly track, the lease area is almost devoid of any agricultural land. However, all precautions as mentioned above will be strictly maintained so that the water to be discharged should be clean and devoid of any suspended particles and silt. Therefore, siltation of the nearby agricultural lands is ruled out by the ingression of the discharged water.
8) Adequate drainage pattern of mine/project area commensurate with the natural drainage.
9) Effective local runoff arrangement of rainwater for GW infiltration into the soil and in hard-rock areas.
10) Widening of watercourses, cleaning of silt from pond/tank beds or open ditches and raising the drainage level of water channels thereby increasing groundwater recharge and the water storage</td></tr>
</table>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		capacity. 11) Recycling, conservation, and recharge: Promotion and encouragement for mine water recycling/reuse, water conservation, and groundwater recharge can remove water crisis in and around the mining site. In this regard, subcategorization of water as "surface water" and "groundwater" will provide better solution. By addressing the impressive technical solutions related to water pollution, positive results can be achieved.
iv)	Proposal for reduction of ground water usage.	As it is a mining activity no water is involved in the process. Runoff water from mine head will be stored in the abandon pit (Rain water harvesting) and utilized for dust suppression, plantation and other activities. Surface run off will be protected by rain water drains and silt settling tanks around the quarry. I. Garland drain with settling tanks will be provided all around the quarries and dumps. II. The surface runoff water of rain will be channeled in a proper way as indicated in surface drainage plan.
v)	Details of Zero discharge proposal.	As it is a mining activity no water is involved in the process. So there will be no waste water generated due to mining activity. The domestic effluents generation will be approximately 1KLD only which will be discharged to soak pits through septic tank. So no waste water will be discharged to outside. Runoff water from mine head will be stored in the abandon pit (Rain water harvesting) and utilized for dust suppression, plantation and other activities. Programs to eliminate water wastage in every step of the process; • A strong focus on zero discharge, allowing the business to recycle 100% of its effluent water; • Adherence to the principles of 3R (Reduce, Reuse and Recycle); Water saving campaigns are organised by the utility team throughout the mine raising awareness among workers on water efficient practices; • Educating the entire workforce to report water leakages, so that preventative action can be taken to stop water wastage; • Increase in the frequency of water audits, followed by a quick closure of the gaps identified – especially those related to underground leakages
vi)	Slope study report to be undertaken both for mine and OB / waste dump by domain expert and blasting study as well.	• Proper slope will be maintained to avoid rundown of edges and sides of the dump. Retaining wall shall be constructed on downward side to prevent rolling of boulders outside the dumping area and also to prevent inadvertent entry by persons or animals. • Due care will be taken to plan the overall slope of 280 for each dump. • The dumps shall be kept in terraces in a regular fashion. Details are Attached as **Annexure-4.**
vii)	Details of waste management i.e. composition and nature of waste generated, tabulated form showing year wise	During the period of mining activity the waste and excavated soil generated from the lease area is utilized for construction and maintenance of internal Road. The top soil generated will be stacked along the safety zone of the individual lease and cluster which will be utilized for plantation purpose. Details of waste generate, usages and storage and management is given in

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	waste generation, usage and storage i.e. complete waste / dump / OB management.	**Annexure -5.**
viii)	Documents related to permission letter from WR Deptt, Govt. of Odisha respectively for drawl of ground water.	The Project Proponent has submitted the application with the WR Dept., Govt. of Odisha for drawl of ground water vide letter no. 2508190000202 dated 25 th Aug 2019. The WR Dept., The application dated 25 th Aug 2019 is Attached as **Annexure-6**.
ix)	Status of physical condition and maintenance of approach roads from lease area to washing plant. NOC and maintenance of approach road from concerned authority.	The approach road to the washing plant will be within the lease area because there is a proposal to establish a washing plant within the lease area. All the machineries like Ball mill & washing cell required to establish the plant has been already been purchased. The plant and machineries will be installed and will be operated after duly get all statutory clearances from all the authority and also from the Government of Odisha. As the approach road will be within the lease hold area which is only 20.675Ha, there is no need of NOC from the concern authority because the road inside the lease area will be used and maintain exclusively by us. For your kind information the entire lease area is totally privately acquired agricultural non irrigated land and there is no public road inside the lease area.
x)	Possibility for water usage from River Lanth, to reduce load on ground water usage.	No possibility of uses the Lanth River water, the river is 5 K.M far from our lease area and the total area is from the river to our lease is entirely private land. To reduce the load on ground water uses we will use Rain water harvesting method.
xi)	Total Plantation should be carried out within 2 years and maintenance to be continued in remaining years. Trees present in mining area should be uprooted & transplanted in safety zone.	Noted 1.3791 ha of Greenbelt development as per the scheduled plan will be done. Initially the plantation will be done on the Lease boundary safety zone and then will be spread over the mining lease area. About 625 saplings per annum (1250/two years) of different species are proposed to be planted during the conceptual period. An additional 6000 saplings, as shown below, are to be planted by the end of the lease period. Trees present in mining area should be uprooted & transplanted in safety zone. Details of plantation given in **Annexure-7**
xii)	Sludge disposal from ETP and settling tanks, rain water harvesting and usage /recharge / recycling of it to reduce the use of ground water.	Programs to eliminate water wastage in every step of the process; • A strong focus on zero discharge, allowing the business to recycle 100% of its effluent water; • Adherence to the principles of 3R (Reduce, Reuse and Recycle); Water saving campaigns are organised by the utility team throughout the mine raising awareness among workers on water efficient practices; • Educating the entire workforce to report water leakages, so that preventative action can be taken to stop water wastage; • Increase in the frequency of water audits, followed by a quick closure

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		of the gaps identified – especially those related to underground leakages
xiii)	Detailed proposal for Rain water Harvesting.	**Ground Water Recharge for Mine Lease Area** The rainfall infiltration method is one of the best methods suggested in ground water assessment methodology of CGWB 2007 for first approximation of ground water resources of an area that receives good amount of rainfall. The study area consisting of 20.675 ha receives about 1552 mm rainfalls annually. Since the area is occupied by the hard, massive rock, rainfall infiltration is slow, the standard infiltration factor 10% of the total annual rainfall as mentioned in CGWB 2017 report is assumed. Total rain water harvested from mined area at present condition and during conceptual plan is given in **Annexure-8**.
xiv)	Copy of modified mining plan incorporating progressive mine closure plan.	Progressive mine closure plan is attached as **Annexure-9.**
xv)	Actual mineral deposit in 10 ha. Justify why they will require more than 20 ha. of land for mining.	As per approved mining plan.
xvi)	Occupational Health Study report, including identification of occupational health hazards for employees as well as neighboring habitation, remedial measures for it and periodical health checkups, at least once in six months by occupational health expert.	Occupational Health Study report is Attached as **Annexure-10.**
xvii)	Detailed surface runoff management plan.	**RAIN WATER HARVESTING** The rainfall infiltration method is one of the best methods suggested in ground water assessment methodology of CGWB 2007 for first approximation of ground water resources of an area that receives good amount of rainfall. The study area consisting of 20.675 ha receives about 1552 mm rainfalls annually. Since the area is occupied by the hard, massive rock, rainfall infiltration is slow, the standard infiltration factor 10% of the total annual rainfall as mentioned in CGWB 2017 report is assumed. Total rain water harvested from mined area at present condition and during conceptual plan is given in **Annexure-8**.
xviii	Justify the lease period is 50 years when life of mine	During the Prospecting License the state govt was time bounded by two years , during that period we did not fully explore the mine, when the mines comes into the operation as per the approved mining plan we will explore by

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	is less than 50 years.	drilling the total area , accordingly it is difficult to calculate the life of mines. However after complete the exploration we may surrender the no mineralized zone area after back filling and plantation.
xix)	Project proponent may submit a certificate from concerned Executive Engineer, Water Resources Deptt, Govt. of Odisha that proposed mining will not interfere or cause hindrance to ongoing irrigation project.	Joint verification letter of Irrigation Division , Balangir Attached as **Annexure-11**
xx)	Proceedings of public hearing to be submitted and actions proposed to be taken in physical terms for the environmental issues raised.	Attached as **Annexure-12**
xxi)	SOP for zero discharge of slit and waste water to Agricultural.	i) Drinking water will be supplied through tanker. Total water requirement is 10 KLD for process and drinking purpose and dust suppression. ii) All around the quarries and dumps garland drain will be provided with settling tanks. iii) The water quality and will be monitored every quarterly basis to know the water quality standard and report will be submitted. iv) The surface runoff water of rain will be channeled in a proper way as indicated in surface drainage plan. Attached as annexure-3

Considering the information furnished and the presentation made by the consultant **M/s Green Circle. INC., Vadodara (Gujarat)** along with the project proponent, the SEAC recommended for grant of Environmental Clearance with stipulated conditions as per **Annexure – E.**

ITEM NO. 09

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S ADISH MINERALS PVT. LTD. FOR PROPOSED CHROME ORE BENEFICIATION PLANT OF CAPACITY 1,20,000 TPA THROUGHPUT OVER AN MINING LEASE AREA 13.43 ACRES AT MOUZA- BAUNSAMALI, PS- BADACHANA, DIST-JAJPUR, ODISHA OF SRI NRUSINGHA CHARAN PARIDA (DIRECTOR) – EC

1. The proposed project is for Environmental Clearance of M/s Adish Minerals Pvt. Ltd. for proposed chrome ore beneficiation plant of capacity 1,20,000 TPA throughput over an mining lease area 13.43 acres at Mouza- Baunsamali, PS- Badachana, Dist-Jajpur, Odisha of Sri Nrusingha Charan Parida (Director).

2. M/s Adish Minerals Private Limited has proposed for installation of greenfield Chrome Ore Benefication Plant of capacity 1, 20, 000 TPA throughput located at - Mouza-Baunsamuli, Thana- Badachana, District Jajpur, Odisha.

3. As per EIA Notification dated 14th Sep, 2006 as amended from time to time, the project falls under Category "B", Project or Activity 2(b) – Mineral Beneficiation Unit.

4. The Company "Adish Minerals Private Limited" (AMPL) is incorporated under Companies Act 2013 on 25th April 2018. The Company is a private limited company with Corporate Identity Number- U14298OR2018PTC028769. The Major Objective of the Company is to Beneficiate Low Grade Chrome to Chrome concentrate and sell to various industries of Odisha & other states of India. The Project will have an 100% capacity of beneficiation 120000 TPA of Siliceous Chrome ore material. The concentrated chrome ore output is envisaged as 74400 TPA with conc. Of Cr2O3 between 46 to 54%.

5. **Site Location and Connectivity -** The site is located at Mouza- Baunsamuli, Thana- Badachana, District- Jajpur of Odisha bounded by Latitude 20°41'49.3" N and Longitude 86°00'04.1" E which falls under the Survey of India Toposheet No.F45T13, F45T14,F45U1,F45U2. Total Area of the plant is 13.43 acres. Out of Total land, 5.38 acres (5.435 Ha.) had been acquired at Village- Salapada, Tehsil- Darpan, Thana- Badachana, District- Jajpur of Odisha State. There is no habitation in the proposed area. Nearest habitation is Salapada which is at a distance of 0.30 km from project site. The site is well connected with the road. NH-5 is at a distance of 12- 15 Km from the project site. The nearest railway facility is Barithengarh Railway Station which is 7.5 km. The Nearest airport is Bhubaneswar at 53 km and nearest seaport is Paradeep at a distance of 84 km (SE) from the project site. Water Bodies: Kumaria Nadi- 8.2 Km & Mahanadi River- 17 Km. Nearest town Chandikhol located at a distance of 10.0 Km from the project site. NH- 5 connects the factory site with major cities like Jajpur ,Dubri ,Sukhinda ,Kailpani in order to get their raw materials transported to the factory site . It also connected the States like West Bengal, Andhra Pradesh, therefore the end processed products can easily be transported to the buyers site with the convenient connecting Conveyance Facilities.

6. No National Park / Wildlife Sanctuary /Biosphere Reserve /Tiger reserve have been reported to be located in the core & buffer Zone of the project and the area does not report to form corridor for schedule-1 Fauna.

7. There is no forest land involved in the proposed site. No rehabilitation and resettlement is required for the proposed project.

8. ToR was granted on 20th August 2019 vide letter no. 231/SEAC-4/19.

9. Baseline Study was conducted during the period 1st March 2019 – 31th May 2019 (Pre-Monsoon Season)

10. Public Hearing was conducted in 15th December 2020.

11. **Water Requirement:** Total Water requirement for the plant– 2,880 m3/day. Water will be kept in closed circuit & will be recycled and hence, conservation of freshwater to about 30% of the total requirement. Thus fresh make water requirement is envisaged to be 46 m3/hr or 1,104 m3/day and source is borewell. Total Circulation Water: 120 m3/hr or 2,880 KLD. The unit has applied to CGWA for drawl of water vide Application Number: 21-4/2404/OR/IND/2020, Dated:

07.01.2020. Treated water from STP will be used for plantation activities and greenbelt development.

12. **Power Requirement:** There will be an installation of a 315 KVA Transformer and it has been estimated that approximately 292 KVA will be used for running the motors of the Plant & Machinery if all machines work at full capacity and there will be utilization of the rest 24 KVA for the Office administrative & Staff Quarters . The Power connection will from CESU. In future, if there will be an expansion of the plant capacity from current 100% capacity of 1, 20,000 tons, accordingly the power connectivity for 33 KVA transformer will be installed . In Case of Power Failure situation, it is envisaged that a D.G Set of 320 KVA, of Kirloskar make will be installed which will operate the plant at full load even there is a power cut.

13. Fuel: Diesel as a fuel is required for running the Tipper & JCB Loader. And there will be requirement of 115 litres per Day.

14. The Raw Material used will be Chrome Ore of below 40% Grade Cr_2O_3 with 10% moisture with recovery rate of 62%. The finished products generated will be Chrome Concentrate Cr_2O_3 with 8% moisture.

15. The project will generate 90 nos. of manpower, out of which 70 nos. Labourer's skilled & unskilled employees and the rest 20 nos. will be recruited as Administrative & operating facilities.

16. Safeguard Measures like, as regular water sprinkling shall be carried out in critical areas prone to pollution, like haul road, loading & unloading points. It shall be ensured that the ambient Air Quality Parameters conform to the norms prescribed by the central pollution control board in his regard.

Sl. No.	Source of Pollution	Pollutants	APC measures
i)	Raw material handling yard (Unloading, Stacking)	Fugitive Dust	Dust suppression system such as water sprinkling
ii)	Screening	Fugitive Dust	Dry Fog system
iii)	Internal Roads	Fugitive Dust	Mobile Tanker, Internal Roads will be made Black topped
iv)	Fines stock yard of COB Plant	Fugitive Dust	Will kept under a shed
v)	Product discharge system (finished product)	Fugitive Dust	Water sprinkling
vi)	Movement of vehicles	Fugitive Dust	Water sprinkling

17. **Solid waste and management:** The estimated Tailing generation from the process would be 45,600 Ton/Yr. Considering the life of plant 6 years, total tailing generation worked out to be 2,73,600 Tons. The tailings discharged through beneficiation process will be treated with ferrous sulphate to minimize the hexavalent chromium in the tailings. The tailings will be processed in filter press and the cake disposed off in TSDF.Garland drains will be constructed to collect the discharges and the same will be drained down to re-circulation pond. To control the dust handling of feed ore and finished product, water sprinklers in Raw material yard and finished product yard have been recommended. In addition adequate plantations are

recommended. ETP Sludge – 1200 TPA will be disposed off in TSDF. Waste oil in small quantities will be generated from gear box and other machineries and will be disposed off to authorized recyclers registered with Pollution Control Board.

18. **Greenbelt / plantation** will be done in 33% (i.e. 4.43 acres) of the total plant area. The entire plant is set up at an area of 1.30 acres. Plantation will be done in and around the plant premises. 80% survival rate will be maintained with all possible efforts. The trees will be planted at suitable grid spacing to encourage proper growth. Local plant species will be preferred.

19. Total Cost of the proposed project will be ` 984.81 Lakhs.

20. The project proponent along with the environment consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar** made a detailed presentation before the SEAC on 01.09.2021.

21. The SEAC in its meeting held on dated 01-09-2021 decided to take decision on the proposal after receipt of the certain information / documents from the proponent followed by visit of the sub-committee of SEAC to the site. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	Complete material balance of the whole process occurring in Plant.	Material balance has been attached as **Annexure -1**.	------
ii)	Detailed description on utilization/disposal of tailings from process till end users using the treated tailings and related documents i.e. copy of agreement made with end users for disposal of treated tailings commensuration with disposal SOP of tailings.	The project is currently at conceptual stage and there is no tailing generation at the moment. However, the company is in discussion with registered CHTSDF and final MoU shall be submitted shortly.	------
iii)	Content of E. coli in treated water is more than norm. Justify the result and mitigation measures to be undertaken to control the same.	Neither this point was raised during the presentation nor it does have any relevance for the proposed project.	------
iv)	Source of chromite ore and copy of agreement made with mine owners.	Undertaking has been attached as **Annexure -2**.	------

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th><th>Views of SEAC</th></tr>
<tr><td>v)</td><td>Detailed to the scale plant layout map (in A1 size) with legend indicating location of the beneficiation plant, office building, rainwater harvesting pond, ETP, tailing pond, raw material storage yard and green area etc.</td><td>Plant layout has been attached as Annexure -3.</td><td>------</td></tr>
<tr><td>vi)</td><td>Tailing pond design and specification along with tailing utilization and disposal plan year wise for 5 years. In case of storage plan the land area and storage plan to be elaborated. The design capacity of the tailing pond need to include the waste water associated with tailings. The material of construction including matting material to leachate be submitted. The ETP design and capacity need to be made in reference to treatment of waste water of a tailing pond to arrest overflowing at any point of time suitably.</td><td>The tailing shall be built as per downstream method. Year wise disposal of tailings has been tabulated below:
<table><tr><th>Year</th><th>Quantity in Ton</th></tr><tr><td>1st year</td><td>45,600</td></tr><tr><td>2nd year</td><td>45,600</td></tr><tr><td>3rd year</td><td>45,600</td></tr><tr><td>4th year</td><td>45,600</td></tr><tr><td>5th year</td><td>45,600</td></tr><tr><td>Total</td><td>2,28,000</td></tr></table>
Tailing pond will be constructed progressively using tailing and natural borrow materials. Semi –crystalline thermoplastics such as High Density Ployethene (HDPE) shall be used as liner. ETP design and capacity will be made in reference to waste water from tailing pond.</td><td>------</td></tr>
<tr><td>vii)</td><td>Analysis of Nickel and Cobalt content in Tailings and Mines waste</td><td>The tailing water will be analysed for Nickel and Cubalt content and results shall be submitted along with EC compliance report. There are no mine wastes as the proposal is only for beneficiation plant.</td><td>Tailings are not water. Tailing analysis is required along with analysis of OB generated for Ni, Co.</td></tr>
<tr><td>viii)</td><td>The report has in many places' hexavalent chromium more than norms or close to norm (page-32, SW-</td><td>The deviation found was sporadic samples are drawn from adjacent location, the results of same has been given in Annexure -4. The present results conform to the norms. E-coil was not raised during the presentation nor it does have any relevance for the</td><td>Mitigation measure (plan) is essential for Cr+6 wherever applicable. E-coil might not have relevance but it was</td></tr>
</table>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	3, SW-1. Similarly, E-coil in SW-2, SW-7, SW-8 etc are more than norm. Mitigation plan to be reworked and submitted.	proposed project.	analyzed and presented and found to be abnormal. Being a pollutant, mitigation measures required and proponent needs to submit action plan with revised report.
ix)	Separate chapter on monitoring Study of cumulative effect on soil, air, water due to establishment of chrome ore beneficiation unit for 3 months.	A separate chapter shall be prepared and submitted after 3 months from the installation of the unit.	------
x)	Distance of agricultural land from beneficiation unit.	Agriculture land is about 200 m from the beneficiation unit towards north.	------
xi)	Details of existing units near to the Chrome Ore Beneficiation Plant.	There are no existing Chrome Ore Beneficiation plants within 10 km buffer of the project site.	------
xii)	Study of Disaster Management for this new Chrome Ore Beneficiation unit.	On-site Disaster Management plan shall be submitted shortly.	------
xiii)	Detailed proposal to adopt Zero Liquid Discharge (ZLD) concept.	Water balance for Zero Liquid Discharge (ZLD) has been shown below:	??? This needs to reflect in water balance for both rainy and other season
xiv)	Source of waste water and details of Effluent Treatment Plant for treatment of waste water containing hexavalent chromium. Cost of ETP with breakup.	Waste water will be generated from tailings in the beneficiation plant. Same shall be treated in ETP. Cr (VI) shall be reduced to Cr (III) by dosing it with Ferrous Sulphate. After reduction, the chromium will be precipitated as chromium hydroxide by dosing with alkali (NaOH). It will be separated in clariflocculator enhanced with polyelectrolyte. It will be further treated by filtration system (sand bed) and ion exchange removal system. Proposed ETP construction cost is `2.0 Crore with an operational cost of `30 Lakhs. Treatment units that will be installed are Screen chamber (2 nos), Equalisation tank (2 nos), Clariflocculator (2 nos), Aeration tank (2 nos), Clarifier (2 nos), Sludge beds (20 nos).	It is necessary to visit the plant during operation to ascertain the functioning of ETP for mitigating Cr+6

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th><th>Views of SEAC</th></tr>
<tr><td>xv)</td><td>Water balance diagram along with compensating water balance from rain harvesting pond.</td><td>Potential rainwater that will be harvested per annum = 12636 CUM (1.44 CUM/hr) water balance diagram with compensating water balance is given below:</td><td>------</td></tr>
<tr><td>xvi)</td><td>Design and dimensions along with capacity of rain harvesting pond.</td><td>Total leased area taken as 404700sq. meter. Average annual rainfall is 1536.7 mm. Rain water potential of the project area can be computed as below.
Using rational formula, Q=CiA, Q in cum.
Where C=Run-off Coefficient,
I=intensity of rainfall (m/s)
A=catchment area in sq.m.
<table>
<tr><th>Particulars</th><th>Area (Sq. m)</th><th>Runoff Coefficient</th><th>Rainfall (M)</th><th>Rainwater harvesting potential (cum)</th></tr>
<tr><td>Green Belt</td><td>17928</td><td>0.15</td><td>1.143</td><td>3074</td></tr>
<tr><td>Open Land</td><td>31024</td><td>0.15</td><td>1.143</td><td>5319</td></tr>
<tr><td>Road and Paved Area</td><td>2023</td><td>0.5</td><td>1.143</td><td>1156</td></tr>
<tr><td>Roof Top</td><td>3376</td><td>0.8</td><td>1.143</td><td>3087</td></tr>
<tr><td>Total</td><td>54351</td><td></td><td></td><td>12636</td></tr>
</table>
To accommodate total harvested rainwater of 12636 m^3 / year, it is proposed to construct a water conservation tank having 30000 m cubic meter storage capacity.
The tank dimension will be L=40 m, W=35m & Depth = 3 m Thus, storage capacity of water conservation structure would be 4,200 cubic meter.

Rainfall during monsoon season = 1143 mm
No. of rainy days = 60
Average rainfall per day = 19 mm
Every 15 days pond will be filled, hence = 4,200 cum*4 = 16,800 cum</td><td>------</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th><th>Views of SEAC</th></tr>
<tr><td></td><td></td><td>Therefore, total storage capacity is 16,800 cum.</td><td></td></tr>
<tr><td>xvii)</td><td>How much quantity of total water requirement (1104 kld) to be sourced from ground water will be reduced on use of ground water harvested and stored in rain water harvesting pond (with detail calculations).</td><td>Total lease area = 404700sq m
Average rainfall = 1536.7 mm
Rainwater harvesting potential:
Green belt = 3074 m^3
Open land = 5319 m^3
Road and paved area = 1156 m^3
Rooftop = 3087 m^3
Total recharge = 12636 m^3
Harvested water per day = 34.6 – 34 KLD
Reduction in water usage = 1104-34 = 1070 KLD</td><td>------</td></tr>
<tr><td>xviii)</td><td>Mitigative measures to be taken for serious occupational health hazards due to hexavalent chromium- SOP of measures to be undertaken for employees and local habitation including adoption of ISO 14001 and OHSAS be submitted.</td><td>Periodical medical check-up for employees & surrounding habitations shall be carried out half yearly. We will adopt OHSAS & IS-14001 after the plant is commissioned.</td><td>------</td></tr>
<tr><td>xix)</td><td>Detailed cost breakup towards pollution control measures for this Chrome Ore Beneficiation Plant.</td><td>Cost of Environment Monitoring<table><tr><th>Particulars</th><th>Cost / year (` in Lacs)</th></tr><tr><td>Air Monitoring</td><td>35.45</td></tr><tr><td>Water Monitoring</td><td>1.07</td></tr><tr><td>Noise Monitoring</td><td>6.48</td></tr><tr><td>Total</td><td>43.0</td></tr></table></td><td>------</td></tr>
<tr><td>xx)</td><td>Surface runoff management and detailed treatment facility for surface runoff.</td><td>Garland drains will be constructed to collect the discharge and the same will be drained down to re-circulation pond.</td><td>------</td></tr>
<tr><td>xxi)</td><td>Analysis result of surface and ground water and soil within study area w.r.t. hexavalent chromium.</td><td>The deviation found was sporadic. Samples are drawn from adjacent location, the results of same has been given in Annexure-4. The present results conform to the norms. E.Coli was not raised during the presentation nor it does have any relevance for the proposed project.</td><td>------</td></tr>
<tr><td>xxii)</td><td>Detailed land schedule with kissam of land in tabulated</td><td></td><td>------</td></tr>
</table>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	form. Whether land kissam has been converted to "Industrial Use", if so, detailed document to be submitted.		
xxiii)	Report has several mistakes with regard to process reactions (Chapter-IV, Chapter-X and other places) given by the Consultant. It is necessary that the report needs to be revised and resubmitted as the corrections are many. The consultant and proponent are required to understand the impact of the process and reaction and be serious in providing environmentally friendly solution with regard to hexavalent chromium and other pollutants.	Revised report shall be submitted to SEAC shortly.	Revised report to be submitted to SEAC by the proponent.
xxiv)	Minutes of Meeting of Public Hearing conducted and mitigation measure on the concerns of the public in physical terms be submitted.	Minutes of meeting of the Public Hearing conducted has been attached as **Annexure-6.** Compliances of Public Hearing with timeline and budget have been attached as **Annexure-7**.	------
xxv)	Maintenance of Biodiversity register.	Biodiversity Register shall be maintained with the plant.	------
xxvi)	Findings of traffic study undertaken at point of intersection with NH Vis-a vis the norm in terms of PCU and traffic decongestion measures recommended if any be submitted.	It is recommended that quick development of road condition, proper street lights and parking area near to the main road are of utmost importance for the safety of life as well as development of nearby villages/towns. Road signs and road marking area main guiding factors for the road users which is essential required to be adequate and placed at appropriate places on the road. In all most all intersections road	------

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		markings not provided/dilapidated condition. Hence it is immediate requirement to install the signboards and marking at all intersections and maintenance of existing roads of good condition.	
xxvii)	How DG set height of 30 mtr is arrived for 24 KVA DG set including installation layout and drawing of the chimney be submitted.	It is a typographical error; the chimney height calculation is given below: Height of Chimney = height of building *0.2 KVA Height of Chimney = 12*0.2*4.89 = 11.736-12 m	------
xxviii)	Conversion of land "to industrial use" and submission of the relevant document thereof from the appropriate revenue authority be submitted.	Same has been attached as **Annexure-8.**	------

22. The SEAC in its meeting held on dated 05.01.2022 decided to take decision on the proposal after site visit by the sub-Committee of the SEAC and receipt of revised report from the proponent as stated above.

23. The project proponent has furnished the revised EIA/EMP Report and the SEAC verified the same.

After detailed discussion, the SEAC decided to take decision on the proposal after the site visit by the sub-committee of SEAC.

ITEM NO. 10

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR NUAPALLI SAND QUARRY OVER AN AREA OF 7.867 HA./19.44 AC. ON KUSUMI RIVER LOCATED AT VILLAGE-NUAPALLI, TAHASIL- BHAPUR, DIST-NAYAGARH OF SRI. RAJESH KUMAR PRADHAN – EC

1. The proposal is for Environmental Clearance for Nuapalli Sand Quarry over an area 19.44acres or 7.867 ha located in village Nuapalli, under Bhapur Tahsil of Nayagarh District, Odisha (Final EIA/EMP Submitted) of Sri Rajesh Kumar Pradhan.
2. As per EIA Notification dated 14.09.06 and its subsequent amendments S.O.141 (E) on dated 15.1.2016, the project falls under, Category "B1".
3. The proposed Nuapalli Sand Quarry project is for river bed sand mining on Kusumi River at Village-Nuapalli, Tahasil- Bhapur, Dist-Nayagarh, Odisha, over an area of 7.867 Ha./19.44 Ac.
4. The TOR was issued for this project vide letter No. 9648/SEIAA, dt. 19.11.2020.
5. Public Hearing was conducted on 17.04.2021 (10.00 am) at Campus of Bhapur , tahasil, in Nayagarh District, Odisha for the project and the final EIA /EMP report is submitted to SEIAA, Odisha.
6. The Quarry lease has been proposed to be granted by the Tahasildar, Bhapur to the

applicant (successful bidder) for minor mineral (River Sand) for five years vide order no. 2192 dated- 03.08.2018. The Mining Plan of the Mining Project has been approved by Deputy Director of Geology, Directorate of Geology, Bhubaneswar, Odisha vide memo no.11786 on dated 20.11.2018.

7. The lease area is bounded by longitude: 85° 10' 03.00" E to E 85° 11' 01.20" & latitude: 20° 14' 03.00"N to N 20° 14' 48.70". It is a part of area covered in the Survey of India Toposheet No. 73-H/4. in Khata No.- 231, Plot No - 01, 859 Kisam - Nadi. The lease area is located at a distance of 8.0 km from Tahasil Bhapur. Village Nuapalli is at a distance of 1.0 km from to the mining area. District Nayagarh is at a distance of 28.0 km. Khandapada is the nearest place from the lease area for all infrastructure facilities like hospital, school, bus service, market. The east coast railway line is at a distance 28.0 kms from the lease area. NH-224 is at a distance of 26.0 km and SH-1 is at a distance of 24.0 km from the lease area. There is no national park, wild life sanctuary, eco sensitive areas and industrial area situated within 10Kms radius of the lease area.
8. The Geological Reserve is 48840 cum and Mineable Reserve is 26017cum. The Mining will be done with semi mechanized method for excavation & loading into trucks/ tractors for transport to the users' destination. The quarry will be worked for five years. The average proposed rate of production is 2800 Cum per annum (in five years, total production will be 12000Cu.m). Excavation & loading of sand into the trucks/tractors will be done by manual means.
9. Replenishment Study Report concludes that replenishment rate is 98% i.e. Amount of sand Replenishment within the quarry area is 11760Cum & proposed production is 12000 cum.
10. **Water Requirement** – Water requirement for the project will be 1.5 KLD for drinking & domestic purpose, green belt development and dust suppression. Ground water will be used for drinking and domestic purpose whereas surface water will be used for green belt development and dust suppression. Water will be withdrawn from tube wells from nearby village.
11. **Power Requirement** - No use of electric power as the operation will be done in day time. However solar lights will be used for day to day living purposes. 0.08 KLD diesel is required as fuel.
12. **Green Belt Development**: Out of the total area, green belt will be developed over an area of 2.61ha. and 6600 tress will be planted**.**
13. **Employment Potential** - Total number of employee will be around 8 which includes skilled, semi-skilled & unskilled category in the mine.
14. Baseline data collected during the period Dec, 2019 to Feb, 2020.
15. PM10 ranges within 77.0-38.0 µg/m³, PM2.5 ranges within 38.0-13.0µg/m³, SO2 ranges within 7.3-4.1 µg/m³ & NOx ranges within 14.9-9.5 µg/m³. The parameters monitored at the project area as per NAAQ standards are found to be within limits. It may be observed that the all parameters at all stations are well within the limits prescribed by Central pollution control Board.
16. The project cost is 25 lakhs and EMP Capital Cost is 14.30lakh and EMP Recurring Cost is 5.60 lakhs.
17. The Environment consultant **M/s Ardra Consulting Services Pvt. Ltd. Bhubaneswar** along

with the proponent has made a presentation on the proposal before the Committee on 14.12.2021.

18. The SEAC in its meeting held on dated 14.12.2021 decided to take decision on the proposal after receipt of the certain information / documents from the proponent. The project proponent has furnished the compliance and the SEAC verified the same as follows:

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th></tr>
<tr><td>i)</td><td>Width of the river.</td><td>Width of the river is 3325 meter. Detail give in the Study report on River Bank management.</td></tr>
<tr><td>ii)</td><td>Extraction area be indicated in absolute value and as percentage of ML area against the norm of Sand Mining by MoEF & CC.</td><td>Extraction shall be done over 4.80 ha of area i.e only 61 % of total area.</td></tr>
<tr><td>iii)</td><td>“No Mining Zone”, Safety Zone, distance of ML boundary from river bank, distance of ML boundary from nearest habitation, distance of haulage road from village road vis-s-vis the norm for the some in a tabular form including the distance from river bridge or NH/SH or large infrastructure (both upstream & downstream).</td><td>
<table>
<tr><th>Details</th><th>Area /Distance</th></tr>
<tr><td>No Mining Zone</td><td>2.28ha</td></tr>
<tr><td>Safety zone</td><td>0.787ha</td></tr>
<tr><td>Distance of ML boundary from river bank</td><td>0.9 km</td></tr>
<tr><td>Distance of ML boundary from nearest habitation</td><td>1.0km</td></tr>
<tr><td>Distance of haulage road from village road</td><td>1.0km</td></tr>
<tr><td>Distance from river bridge</td><td>1.4 km</td></tr>
<tr><td>NH</td><td>26 km</td></tr>
<tr><td>SH</td><td>24 km</td></tr>
<tr><td>Large infrastructure</td><td>2.8 km</td></tr>
</table>
</td></tr>
<tr><td>iv)</td><td>Considering extraction at least 10% less than deposition, revised mining plan duly approved be submitted indicating revised extraction in this tonnage & volume year wise for 05 years.</td><td>Mining plan shall be revised after start of operation.</td></tr>
<tr><td>v)</td><td>Replenishment study undertaken be submitted including sand grain analysis as suggested during presentation.</td><td>Replenishment survey carried out attached as Annexure-1 Grain analysis report given in below table.
<table>
<tr><th>Size Range</th><th>Sand Type</th><th>Average Quantity in gram</th><th>%</th></tr>
<tr><td>1–2 mm</td><td>Very coarse sand</td><td>16</td><td>16</td></tr>
<tr><td>0.5–1 mm</td><td>Coarse sand</td><td>25</td><td>25</td></tr>
<tr><td>0.25–0.5 mm</td><td>Medium sand</td><td>29</td><td>29</td></tr>
<tr><td>125–250</td><td>Fine sand</td><td>18</td><td>18</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>µm</td><td></td><td></td><td></td></tr>
<tr><td>62.5–125 µm</td><td>Very fine sand</td><td>12</td><td>12</td></tr>
</table>
</td></tr>
<tr><td>vi)</td><td>Details of proposed ramp on river bank (construction details) for movement of vehicles be submitted.</td><td>Stone pitching shall be done in slope of river bund over 125 sqm both side of mine entrance.</td></tr>
<tr><td>vii)</td><td>Confirmation of stone patching and planation in it or a stretch of river bank expected to have erosion with dimension & drawing / sketch be submitted.</td><td>Undertaking regarding Confirmation of stone patching and plantation in it or a stretch of river bank is attached as Annexure-2.</td></tr>
<tr><td>viii)</td><td>Erosion study be undertaken within one year of EC (if granted) and submitted to SEIAA and course correction be made as & if necessary in confirmation with RQP / Mining authority and W.R Deptt, Govt of Odisha.</td><td>Undertaking for undertaking Erosion study within one year of EC granted is attached as Annexure-3.</td></tr>
<tr><td>ix)</td><td>Details of Avenue Planation as suggested be submitted.</td><td>Details avenue plantation suggested in greenbelt plan is given below:
<table>
<tr><th>Year</th><th>Nos sapling</th><th>Budget in Rs.</th><th>Location</th><th>Species</th></tr>
<tr><td>1st</td><td>1000</td><td>80,000</td><td>Village Roadside</td><td rowspan="6">Neem, Peepal, Mango,Shisham, Sirish, Babool, Chakunda, Radhachuda, Krushnachuda, Jamun, Simili.</td></tr>
<tr><td>2nd</td><td>1000</td><td>80,000</td><td>Nearby School</td></tr>
<tr><td>3rd</td><td>500</td><td>60,000</td><td>Nuapalii School</td></tr>
<tr><td>4th</td><td>Maintenance</td><td>20,000</td><td></td></tr>
<tr><td>5th</td><td>Maintenance</td><td>20,000</td><td></td></tr>
<tr><td>Total</td><td>2500</td><td>2,60,000 /-</td><td></td></tr>
</table>
</td></tr>
<tr><td>x)</td><td>SOP of sprinkling be submitted along haulage road.</td><td>SOP for sprinkling be submitted along haulage road attached as Annexure-4.</td></tr>
<tr><td>xi)</td><td>Provision of Bio-Toilet to be enclosed & confirmed.</td><td>Undertaking regarding Provision of Bio-Toilet is attached as Annexure-5.</td></tr>
<tr><td>xii)</td><td>Compliance to specific condition of ToR be</td><td>Compliance to specific conditions is attached as Annexure-6.</td></tr>
</table>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	submitted.	

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Ardra Consulting Services Pvt. Ltd. Bhubaneswar**, the SEAC recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions as per **Annexure – F** in addition to the following specific conditions**.**

i) Revised mining plan shall be prepared based on essential physical criteria as per Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India enclosed as **Annexure - G**.

ii) Regular replenishment study to be conducted and report to be submitted.

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

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

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

ITEM NO. 11

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR MADHAPUR SAND QUARRY OVER AN AREA OF 12.50 AC. / 5.059 HA. ON RIVER MAHANADI LOCATED AT VILLAGE – MADHAPUR, UNDER PATHARACHAKADA GP, TAHASIL – BHAPUR, DISTRICT - NAYAGARH OF SRI. BENUDHAR PRADHAN (FINAL EIA/EMP SUBMITTED) – EC

1. The proposal is for Environmental Clearance of Madhapur Sand Quarry over an area of 12.50 ac. / 5.059 ha. on river mahanadi located at village – Madhapur, Under Patharachakada GP, Tahasil – Bhapur, District - Nayagarh of Sri. Benudhar Pradhan
2. As per EIA Notification dated 14.09.06 and its subsequent amendments S.O.141 (E) on dated 15.1.2016, the project falls under, Category “B1”.
3. The proposed Madhapur Sand Quarry project is for river bed sand mining on Mahanadi River at village Madhapur under Bhapur Tahasil of Nayagarh District, Odisha, over an area of 5.059Ha or 12.50 Acres.
4. The TOR was issued for this project vide letter No. 9660/SEIAA, dt. 19.11.2020.
5. Public Hearing was conducted on 17.04.2021 (4.00 pm) at Campus of Bhapur , tahasil, in Nayagarh District, Odisha for the project and the final EIA /EMP report is submitted to SEIAA, Odisha.
6. The Madhapur Sand Quarry lease has been proposed to be granted by the Tahasildar, Bhapur to the applicant (successful bidder) for minor mineral (River Sand) for five years. The Mining Plan of the Mining Project has been approved by Deputy Director of Geology, Bhubaneswar, Odisha vide memo no.6390/DG on dated 18.10.2017.
7. The lease area is bounded by longitude: 85^0 13’ 49.20”E to 85^0 13’ 55.20”E & latitude: 20^0 21’14.20”N to 20^0 21’ 23.10”N. It is a part of the area covered in the Survey of India Toposheet No. 73-H/3 in Khata No- 1237, Plot No - 2, Kisam - Nadi. The lease area is located at a distance of 10.0 km from Tahasil Bhapur. Village Madhapur is at a distance of 1.0 km from to the mining area. District Nayagarh is at a distance of 30.0 km. Bhapur is the

nearest place from the lease area for all infrastructure facilities like hospital, school, bus service, market. The east coast railway line is at a distance 35.0 kms from the lease area. NH-224 is at a distance of 25.0 km and SH-65 is at a distance of 6.0 km from the lease area. There is no national park, wild life sanctuary, eco sensitive areas and industrial area situated within 10Kms radius of the lease area.

8. The Geological Reserve is 30200cum and Mineable Reserve is 22800cum. The Mining will be done with semi mechanized method for excavation & loading into trucks/ tractors for transport to the users' destination. The quarry will be worked for five years. The average proposed rate of production is 4000 Cu. m per annum (in five years, total production will be 14730Cu.m). Excavation & loading of sand into the trucks/tractors will be done by manual means.
9. Replenishment Study Report concludes that replenishment rate is 95.09% i.e. Amount of sand Replenishment within the quarry area is 14007Cum & proposed production is 14730 cum.
10. **Water Requirement** – Water requirement for the project will be 1 KLD for different purposes like domestic, Dust suppression, plantation purposes. Water will be withdrawn from tube wells from nearby village.
11. **Power Requirement** - No use of electric power as the operation will be done in day time. However solar lights will be used for day to day living purposes. 0.08 KLD diesel is required as fuel.
12. **Green Belt Development**: Out of the total area, green belt will be developed over an area of 3.11ha. and 3000 tress will be planted **along the safety zone and haulage road and nearby**
13. **Employment Potential** - Total number of employee will be around 10 which includes skilled, semi-skilled & unskilled category in the mine.
14. Baseline data collected during the period Dec, 2019 to Feb, 2020.
15. PM_{10} ranges within 37.2- 75.4 µg/m³, $PM_{2.5}$ ranges within 13.5 – 39.0 µg/m³, SO_2 ranges within 4.0-9.1 µg/m³ & NOx ranges within 9.0-15.1 µg/m³. The parameters monitored at the project area as per NAAQ standards are found to be within limits. It may be observed that the all parameters at all stations are well within the limits prescribed by Central pollution control Board.
16. The project cost is 25 lakhs and EMP Capital Cost is 14.30lakh and EMP Recurring Cost is 5.60 lakhs.
17. The Environment consultant **M/s Ardra Consulting Services Pvt. Ltd. Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee on 14.12.2021.
18. The SEAC in its meeting held on dated 14.12.2021 decided to take decision on the proposal after receipt of the certain information / documents from the proponent. The project 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)	Width of the river.	Width of the river is 3325 meter. Detail give in the Study report on River Bank management.

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th></tr>
<tr><td>ii)</td><td>Extraction area be indicated in absolute value and as percentage of ML area against the norm of Sand Mining by MoEF&CC, Govt. of India.</td><td>Extraction shall be done over 1.49 ha of area i.e only 29 % of total area.</td></tr>
<tr><td>iii)</td><td>“No Mining Zone”, Safety Zone, distance of ML boundary from river bank, distance of ML boundary from nearest habitation, distance of haulage road from village road vis-s-vis the norm for the some in a tabular form including the distance from river bridge or NH/SH or large infrastructure (both upstream & downstream).</td><td>
<table>
<tr><th>Details</th><th>Area /Distance</th></tr>
<tr><td>No Mining Zone</td><td>3.569ha</td></tr>
<tr><td>Safety zone</td><td>2.779ha</td></tr>
<tr><td>Distance of ML boundary from river bank</td><td>1500 meters</td></tr>
<tr><td>Distance of ML boundary from nearest habitation</td><td>1000 meter</td></tr>
<tr><td>Distance of haulage road from village road</td><td>1000 meter</td></tr>
<tr><td>Distance from river bridge</td><td>14 km</td></tr>
<tr><td>NH</td><td>25000 meter</td></tr>
<tr><td>SH</td><td>6000meter</td></tr>
<tr><td>Large infrastructure</td><td>2000 meter</td></tr>
</table>
</td></tr>
<tr><td>iv)</td><td>Considering extraction at least 10% less than deposition, revised mining plan duly approved be submitted indicating revised extraction in this tonnage & volume year wise for 05 years.</td><td>Mining plan shall be revised after start of operation.</td></tr>
<tr><td>v)</td><td>Replenishment study undertaken be submitted including sand grain analysis as suggested during presentation.</td><td>Replenishment survey carried out attached as Annexure-1 Grain analysis report given in below table.
<table>
<tr><th>Size Range</th><th>Sand Type</th><th>Average Quantity in gram</th><th>%</th></tr>
<tr><td>1–2 mm</td><td>Very coarse sand</td><td>17</td><td>17</td></tr>
<tr><td>0.5–1 mm</td><td>Coarse sand</td><td>22</td><td>22</td></tr>
<tr><td>0.25–0.5 mm</td><td>Medium sand</td><td>31</td><td>31</td></tr>
<tr><td>125–250 µm</td><td>Fine sand</td><td>16</td><td>16</td></tr>
<tr><td>62.5–125 µm</td><td>Very fine sand</td><td>14</td><td>14</td></tr>
</table>
</td></tr>
<tr><td>vi)</td><td>Details of proposed ramp on river bank (construction details) for movement of vehicles</td><td>Stone pitching shall be done in slope of river bund over 100 sqm both side of mine entrance.</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th></tr>
<tr><td></td><td>be submitted.</td><td></td></tr>
<tr><td>vii)</td><td>Confirmation of stone patching and planation in it or a stretch of river bank expected to have erosion with dimension & drawing / sketch be submitted.</td><td>Undertaking regarding Confirmation of stone patching and plantation in it or a stretch of river bank is attached as Annexure-2.</td></tr>
<tr><td>viii)</td><td>Erosion study be undertaken within one year of EC (if granted) and submitted to SEIAA and course correction be made as & if necessary in confirmation with RQP / Mining authority and W.R Deptt, Govt of Odisha.</td><td>Undertaking for undertaking Erosion study within one year of EC granted is attached as Annexure-3.</td></tr>
<tr><td>ix)</td><td>Details of Avenue Planation as suggested be submitted.</td><td>Details avenue plantation suggested in greenbelt plan is given below:
<table>
<tr><th>Year</th><th>Nos sapling</th><th>Budget in Rs.</th><th>Location</th><th>Species</th></tr>
<tr><td>1st</td><td>500</td><td>40,000</td><td>Village Roadside</td><td rowspan="7">Neem, Peepal, Mango,Shisham, Sirish, Babool, Chakunda, Radhachuda, Krushnachuda, Jamun, Simili.</td></tr>
<tr><td>2nd</td><td>1000</td><td>80,000</td><td>Nearby School</td></tr>
<tr><td>3rd</td><td>500</td><td>40,000</td><td>Madhpur School</td></tr>
<tr><td>4th</td><td>Maintenance</td><td>15,000</td><td></td></tr>
<tr><td>5th</td><td>Maintenance</td><td>15,000</td><td></td></tr>
<tr><td>Total</td><td>2000</td><td>1,90,000 /-</td><td></td></tr>
</table></td></tr>
<tr><td>x)</td><td>SOP of sprinkling be submitted along haulage road.</td><td>SOP for sprinkling be submitted along haulage road attached as Annexure-4.</td></tr>
<tr><td>xi)</td><td>Provision of Bio-Toilet to be enclosed & confirmed.</td><td>Undertaking regarding Provision of Bio-Toilet is attached as Annexure-5.</td></tr>
<tr><td>xii)</td><td>Compliance to specific condition of ToR be submitted.</td><td>Compliance to specific conditions is attached as Annexure-6.</td></tr>
</table>

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

grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions as per **Annexure – F** in addition to the following specific conditions**.**

vi) Revised mining plan shall be prepared based on essential physical criteria as per Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India enclosed as **Annexure - G**.

vii) Regular replenishment study to be conducted and report to be submitted.

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

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

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

ITEM NO. 12

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S ALISHAN REALCON PVT. LTD FOR PROPOSED HOUSING PROJECT OF S+5 STORIED RESIDENTIAL APARTMENT BUILDING OVER AN BUILT-UP AREA OF 39,288.93 SQ.M. AT MOUZA- NUAHATA, DIST – CUTTACK, ODISHA OF SRI MANOJ KUMAR DASH (DIRECTOR) – EC

1. The proposal is for Environmental Clearance of M/s Alishan Realcon Pvt. Ltd for Proposed housing Project of S+5 storied residential apartment building over an built-up area of 39,288.93 Sq.m. at Mouza- Nuahata, Dist – Cuttack, Odisha.
2. The project falls under category “B” or activity 8 (a) - Building and Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. Alishan Realcon Private Limited has proposed for development of private housing project of area 15256.64 sqm in plot No.: 1085, 1122, 1124, 1090 Khata No- 13-D1, 498/240, 139 & 498/2111 at Mouza- Nuahata, Cuttack, Dist-Cuttack..
4. **Location and connectivity** - The proposed site is located at Mouza- Nuahata, Cuttack, PS-Balianta, Dist- Cuttack, Odisha. The Geographical co-ordinate of the project site is Latitude 20°22'24.81"N & Longitude 85°53'19.57"E. The project site is well connected with the National Highway-16 & Puri-cnanal road located at the distance of 0.1 Km & 0.2 km. The nearest Railway station is Mancheswar Railway Station at a distance of approximately 5.5 Km from the project site. The nearest Airport is Biju Patnaik International Airport, Bhubaneswar which is at a distance of 16 Km from the project site.
5. The site is coming under development plan of Cuttack Development Authority.
6. The Building Details Of The Project:

Particular	Proposed	Permissible
Project Name	Proposed S+5 storied Residential Apartment Buildings	
Plot Area	15256.64 Sqm (1.52 Ha)	--
Ground Coverage	7635.57 Sqm (50 %)	--
FAR (Floor Area Ratio)	2.1	--
Built up Area	39288.93 sqm	--
Maximum Height	38 m	--

Particular	Proposed	Permissible
Road Area	3465.32 sqm	--
Open Parking Area	1104.43 sqm	8061.80 sqm
Total Parking Area	8146.17 sqm	
Green Belt Area	3051.32 sqm (20.0 %)	3051.32 sqm (20.0 %)
Maximum No. of Floor	S+5	--
Power/Electricity Requirement & Sources	Total – 1435 KW	--
No. of DG sets	2x700 KVA	--
Water requirement	129.7 KLD (Fresh)	--
Sewage Treatment Plant	STP Capacity - 170 KLD	--
Estimated Population-Residential, Floating /visitors	1390 nos.	--

7. **Water requirement**: Fresh make up of 129.7 m3/day will be required for the project which will be sourced from Ground water. Waste water of 166.08 KLD will be treated in a STP of 170 KLD capacity, which includes primary, secondary and tertiary treatment.

8. **Waste water details**: 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. 166.08 m3/day of wastewater. The wastewater will be treated in the STP of capacity of 170 m3/day provided within the complex. Out of which 170 m3/day will be recycled within the project for flushing (65.6 m3/day), landscaping (12.38 m3/day),STP loss (8.5 m3/day) & Dust suppression in Road Area (6.67 m3/day). 65 m3/day will be used as HVAC system in case of non-monsoon period. In case of Monsoon period 170 m3/day will be recycled within the project for flushing (65.6 m3/day), 65 m3/day will be used as HVAC system, STP loss will be 8.5 m3/day and 26.98 m3/day surplus will be generated which will be discharged to the drain.

9. **Power requirement**: The total consolidated electrical load estimate for proposed project is about 1435 KW. The power will be entirely supplied by 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 700 KVA (2 nos.) capacities will be provided.

   There are 70 nos. of Solar Lighting poles (@72 Watt) has been proposed for Street lighting,

   Energy conservation by using Solar Street Lighting = 70 x 72 = 5040 watt = 5.04 KW

   Energy Saving by using Solar Lighting = 71 KW

   Energy Saving by using Solar Street Lighting = 5.04 KW

   Total Energy Saving = 71 + 5.04 = 76.04 KW

   Total Energy Saving = 76.04/1435 = 0.0529 = 5.2 %

10. **Rain Water Harvesting**: Rain Water will be harvested and recharge through 07 recharge pits from the plot area.
11. **Parking Requirement**: Total parking area provided is 8146.17 m^2 sq.mt./ 278ECS and space provided is stilt and open parking area.
12. **Fire fighting Installations**: Fire fighting system will be installed as per recommendation of the Fire fighting Officer, Odisha and as per the guideline of NBC (part-4).
13. **Green Belt Development**: Green belt will be developed over an area of 3051.32 sqm which is 20.0 % of the plot area; by using the local species like Radhachuda, Nageswar, Akash Neem, Ashok, Polanga, Karang, Bela, Pijilu, Kaniara, Tagar, Hena, etc.
14. **Solid Waste Management**: From the proposed housing project solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.45 kg/person/day, which will be about 556 kg/day. The waste generated from floating population in residents will be @ 0.15 kg/day, which will be 21 kg/day. The generated solid waste from the residential apartment will be segregated as biodegradable and non-biodegradable. This will be collected in separate colored bins. Proper waste management practices will be adopted during the collection, storage and disposal of the generated solid waste and construction and demolition waste.

Sl. No.	Category	Counts (heads)	Waste generated
1.	Residents	1390 @ 0.45 kg/day	556 kg/day
2.	Floating population in residents	140 @ 0.15 kg/day	21 kg/day
3.	STP sludge		83.04 ~83 kg/day kg/day
Total Solid Waste Generated			**660 kg/day**

15. The total population of project will be 1390 persons for residential and floating population.
16. The estimated project cost is ` 72 Crores and Environment Management Cost is ` 3.6 crores.
17. The project proponent along with the consultant **M/s Centre for Envotech & Management Consultancy Pvt. Ltd. Bhubaneswar,** made a detailed presentation on the proposal on 17.12.2021.
18. The SEAC in its meeting held on dated 17.12.2021 decided to take decision on the proposal after receipt of the certain information / documents from the proponent followed by visit of sub-committee of SEAC to the proposed site. The project 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)	"Kisam" of the land with conversation to "Gharbari" from appropriate Revenue Authority.	Total land area of the proposed project is 15256.64 sqm and the kissam of land is Gharabari, Land document is attached in **Annexure - 1**.
ii)	Source of water: why not from public water supply with provision of sump & maximum one bore well of suitable capacity to meet emergency need. If the authority does not allow, the letter to this effect from the later be submitted.	The Public water supply is not available in the vicinity of the project area; once the public water supply is available the permission will be obtained from Public Health Division

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		(PHD). The letter from PH Division regarding Non-availability of Public Water Supply is attached in **Annexure-2**.
iii)	In case of drawl of ground water "NOC" from CGWA & permission from W.R Deptt, Govt of Odisha be submitted.	Ground Water permission has been obtained from CGWA vide NoC No. CGWA/NOC/INF/ORIG/2021/13373, dated 19.10.2021. Ground Water Clearance copy is attached in **Annexure -3.**
iv)	Distance between boundary of the project and Public drain for discharge of treated waste water is stated to be approx. 200mtr. The ownership / ROW of the said land and permission from drain authority to take the additional land of this project to be submitted.	We have already submitted the Drainage Plan to Cuttack Municipality Corporation & the vetting process is under process. Once the Drainage Approval will be obtained from respected Authority we will submit the NOC to SEAC/SEIAA committee before commencement of the project. We have already deposit the Infrastructure development fee to EIDP. Letter & fee deposit receipt is attached in **Annexure -4**.
v)	How much rain water available shall be recharged / harvested and balance disposal?	Total 111 m^3/day rain water will be available for recharged/ harvested through 7 nos. of rain water harvesting calculation is attached in **Annexure-5**.
vi)	No. of rain water harvesting pits (RWHP) be re-calculated considering maximum hourly rainfall in 24 hrs on the basis of logical climate data in past 30 years with co-efficient of run off on real time input, retention time and water table being a low level / lying area. The design of recharge pits are required to be submitted.	Rain water harvesting pits (RWHP) has been calculated as per 30 years Rainfall data (1988-2021), as per 30 years data maximum rainfall is 330 mm/day and hourly rainfall is 33 mm/hr. So total rain water available for recharging is 111m^3/hr and total 7 nos. of rain water harvesting pits has been provided for ground water recharging. Detail calculation is given in **Annexure-5**.
vii)	Being low lying area, and NH-16 being any at 100 mtr distance & Puri canal at 200 mtr distance, elevation of the base be suitably worked out & confirmed.	A detailed contour survey has been made and drainage plan has been prepared by a consultant. The plinth level of the project is proposed there so that the storm water will be discharged in the concrete storm water drain already available adjacent to canal. Drainage drawing is attached in **Annexure -12**.
viii)	Green Belt is said to be 3051.52m^2 (exactly 20% of plot area); Detailed calculation with dimension continuous around the boundary showing in the layout map be submitted.	Total greenbelt area provided for the proposed building is 3188.75 sqm, which is 20.6% of the total plot area (15479.21 sqm). We

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		proposed to develop three tier hierarchal greenbelt along the periphery of the building. Greenbelt drawing is attached in **Annexure-6**.
ix)	Parking is terms of space & ECS for 4 wheelers, 2 wheelers including bicycles in terms of the norm as well compatibility for dwellers/ residents, visitors / floating population be re-worked out & submitted showing the space for the same in the layout map.	Total parking area provided for the proposed building is 8146.17 sqm and ECS provided for the building is 253 nos. of 4 wheelers & 204 nos. of 2 Wheelers including bicycles, Parking layout showing 4 wheelers & 2 wheelers parking is attached in **Annexure-7**.
x)	Detail plan with solar Power Consumption against generation with percentage of total power demand, both for street lighting, open space and any other use be submitted.	Total power generation from Solar system is 80.92 KW through 55 nos. of PV Panels & 70 nos. of Solar Street Lighting. Total power demand of the proposed building is 1435.0 kw. So total solar power generation from the proposed building is 5.6% of total power demand. Details solar calculation is attached in **Annexure-8**.
xi)	Stack height of DG set (s) with installation drawing of exhaust pipe (s) be submitted.	For required backup power, 1 no. of DG Set of capacity 250 KVA is proposed. The exhaust shall be provided as per pollution norms laid by CPCB. Since our DG Sets location are along the compound wall, we proposed the vent pipe along the building wall to highest point of the building & vent is 3 m in highest point. Details proposal for DG Sets is attached in **Annexure-9**.
xii)	Traffic study be undertaken by domain expert at entry & exit gates of the project and intersecting point (s) of the lead road of the project with NH-16 (any 100mtr away) / public road with decongestion plan as necessary based on study finding taking into consideration the traffic load 10 years ahead with this project & projects in the vicinity & public traffic be submitted.	The traffic Study report has been vetted by Indian Institute of Technology (IIT) Bhubaneswar. Traffic Study report is attached in **Annexure-10**.
xiii)	DG set location to be shifted in reference to predominant wind direction & location of the towers and shown in the layout map & submitted along with installation drawing of exhaust pipe.	The predominant wind direction of the proposed project area is South and the DG set will be installed as wind flow from South to North. The DG Set position is marked in the layout with respect to predominant wind direction and location of the building tower along with installation drawing/ layout is enclosed as **Annexure-11**.

After detailed discussion, the SEAC decided to take decision on the proposal after the site visit by the sub-committee of SEAC.

ITEM NO. 13

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S UTKAL BUILDERS LTD. FOR PROPOSED CONSTRUCTION OF (2B+S+11) MULTI STORIED RESIDENTIAL APARTMENT & (2B+G+9) STORIED COMMERCIAL BUILDING OVER AN AREA 4809.70 SQMT WITH TOTAL BUILT UP AREA- 25385.95 SQM AT MOUZA- PATIA, BHUBANESWAR, DIST- KHURDA OF SRI RAKESH BHURA (DIRECTOR) – EC

1. The proposal is for Environmental Clearance of M/s Utkal Builders Ltd. for Proposed Construction of (2B+S+11) Multi Storied Residential Apartment & (2B+G+9) Storied Commercial Building over an area 4809.70 SqMt With Total Built Up Area- 25385.95 Sqm At Mouza- Patia, Bhubaneswar, Dist-Khurda, Odisha.
2. The project falls under category “B” or activity 8 (a) - Building and Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. M/s Utkal Builders Ltd has awarded for Development of Private Housing Project 1.2 Acres of land at Plot No.: 369/1940/4889, 369/1940/4892, 369/1940/4891, 369/2381. Mouza-Patia, Bhubaneswar, Dist-Khurdha, Pincode-751024 Odisha.
4. **Location and connectivity** - The proposed site is located at Patia, Bhubaneswar, Odisha. The Geographical co-ordinate of the project site is: Latitude 20°20’36.93” to 20°20’38.61” Longitude 85°49’ 17.83” to 85° 49’ 22.75”. The project site is well connected with Nandankanan Road and The National Highway-5 is located at the distance of 5.2 km. The nearest Railway station is Mancheswar Railway Station which is 3.28 Km from the project site. The nearest Airport is Biju Patnaik International Airport, Bhubaneswar which is 10.79 Km from the project site.
5. The site is coming under development plan of Bhubaneswar Development Authority.
6. The Building Details Of The Project:

Particular	Proposed	Permissible
Project Name	Proposed Commercial Tower (LB+UB+G+9) & Residential Tower (LB+UB+S+11)	--
Plot Area	4809.70 Sqm	--
Ground Coverage	1635.29 Sqm (34 % of plot area)	--
Total Built up Area	25,385.95 Sqm	--
Total FAR Area	18283.08 Sqm	--
Built Up Area (Residential)	11116.97 Sqm	--
Built Up Area (Commercial)	6659.60 Sqm	--
FAR	3.80	3.80
Maximum Height	39.07 mtr	--
Road & Paved Area	1106.2 Sqm	--
Parking Area	7609.38 Sqm	6150.80 Sqm (30 % of Residential FAR

		Area + 40 % of commercial FAR Area)
Green Belt Area	1045.59 Sqm (21.7 % of Plot area)	961.9 Sqm (20 % of Plot area)
Power/Electricity Requirement & Sources	1652.8 KW	--
No. of DG sets	2 x 250 KVA & 1 x 125 KVA	--
Fresh Water requirement & Sources	96.69 KLD Source-Ground Water Supply	--
Sewage Treatment & Disposal	STP Capacity, 150 KLD	--
Estimated Population-Residential, Floating/visitors	696 nos.	--
Estimated Population-Commercial, Floating/visitors	660 nos.	--

7. **Water requirement**: Fresh make up of 96.69 m^3/day will be required for the project which will be sourced from Ground water. Waste water of 129.76 KLD will be treated in a STP of 150 KLD capacity, which includes primary, secondary and tertiary treatment.
8. **Waste water details**: Every building generates wastewater amounting about (80 % of fresh water consumed + 100 % 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. 109.7 m^3/day of wastewater. The wastewater will be treated in the STP of capacity of 150 m^3/day provided within the complex. Out of which 123.27 m^3/day will be recycled within the project for flushing (52.413 m^3/day), landscaping (2.42 m^3/day),STP loss (6.4 m^3/day) and 68.44 m^3/day surplus will be generated which will be discharged to the drain.
9. **Power requirement**: The total consolidated electrical load estimate for proposed project is about 1652.82 KW (Connected Load)/701.0 KW (Demand Load). The power will be entirely supplied by 11 KV 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 250 KVA (2 Nos.) & 125 KVA (1 No.) capacities will be provided.

   There are 110 nos of Solar Lighting poles (@72 Watt) has been proposed for Street lighting,

   Energy conservation by using Solar Street Lighting = 110 x 72 = 7920 watt = 7.9 KW

   Energy conservation by using Solar lighting for common area = 98 KW

   Total Energy Conservation = (98 + 7.9) KW = 105.9 KW

   Total Energy Saving = 105.9/1652.8 = 0.0640 x 100 = 6.4%
10. **Rain Water Harvesting**: Rain Water will be harvested and recharge through 3 recharge pits from the plot area.

11. **Parking Requirement**: Total parking area provided is for residents 4926.36m^2 or 152 ECS and for commercial purpose is 2683.02m^2 or 77ECS. Space provided is lower, upper basement and ground floor.
12. **Fire fighting Installations**: Fire fighting system will be installed as per recommendation of the Fire fighting Officer, Odisha and as per the guideline of NBC (part-4).
13. **Green Belt Development**: Green belt will be developed over an area of 1045.59 Sqm which is 21.7 % of the plot area; by using the local species like Radhachuda, Nageswar, Akash Neem, Ashok, Polanga, Karang, Bela, Pijilu, Kaniara, Tagar, Hena, etc.
14. **Solid Waste Management**: From the proposed private Housing project solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.45 kg/person/day, which will be about 313.2 kg/day and waste generated from the commercial will be @0.15 kg/day, which will be 99 kg/day. The generated solid waste from the residential and commercial complex will be segregated as biodegradable and non-biodegradable. This will be collected in separate colored bins. Proper waste management practices will be adopted during the collection, storage and disposal of the generated solid waste and construction and demolition waste.

S. No.	Category	Counts (heads)	Waste generated
i)	Residents	696 @ 0.45 kg/day	313.2 kg/day
ii)	Commercial population (including Floating Population)	660 @ 0.15 kg/day	99 kg/day
iii)	STP sludge		54.85 kg/day
Total Solid Waste Generated			**467.05 kg/day Say 467 kg/day**

15. The total population of project will be 696 persons for residential and 660nos for commercial.
16. The estimated project cost is ` 46 Crores and Environment Management Cost is ` 2.3 crores.
17. The project proponent along with the consultant **M/s Centre for Envotech & Management Consultancy Pvt. Ltd. Bhubaneswar,** made a detailed presentation on the proposal on 17.12.2021.
18. The SEAC in its meeting held on dated 17.12.2021 decided to take decision on the proposal after receipt of the certain information / documents from the proponent followed by visit of sub-committee of SEAC to the proposed site. The project 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)	Kisam" of the land with conversion to "Gharabari" from appropriate Revenue Authority.	Total land area of the proposed project is 4809.70 Sqm and Land document is attached in **Annexure -1**.
ii)	Source of water WATCO / Municipality with provision of sump. If the authority regrets, the said letter to be submitted. One bore	The Public water supply is not available in project area; once the public water supply is available the permission will be obtained from Public Health Division (PHD). The letter from

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	well may be allowed to meet emergency need.	PH Division regarding Non-availability of Public Water Supply is attached in **Annexure-2**.
iii)	In case of drawl of ground water, "NOC" from CGWA & permission from W.R Deptt, Govt of Odisha to be submitted.	Application for Ground Water clearance is already applied to CGWA. Once the Ground Water NoC received from CGWA, we will apply to Water Resource Department, Govt. of Odisha for final approval.
iv)	Lateral distance between the boundary of the project site and public drain for discharging treated waste water with ownership / ROW of the said land and permission from drain authority to take the additional land of this project.	The public drain is adjacent to the project site. We have already submitted the Drainage Plan to Bhubaneswar Municipal Corporation & the vetting process is under process. Once the Drainage Approval we will submit the NoC to SEAC/SEIAA Committee before commencement of the project. Undertaking regarding drainage is attached in **Annexure-3**.
v)	21% of rain water available is stated to be recharged / harvested. The method of disposal of balance 79% rain water is required to be specified, since it is likely to create local flooding.	Total 25 m^3 rain water will be available for recharged/harvested through 1 no. of rain water harvesting storage tank & 100% rain water will recharged through this tank. Details rain water harvesting calculation is attached in **Annexure-4**.
vi)	No. of rain water harvesting pits (RWHP) be re-calculated considering maximum hourly rainfall in 24 Hours on the basis of logical climate data in past 30 years with co-efficient of run-off on real time input. The design of RWH pits are required to be submitted.	Rain water harvesting pits (RWHP) has been calculated as per 30 years Rainfall data (1988-2021), as per 30 years data maximum rainfall is 364 mm/day and hourly rainfall is 37mm/hr. So total rain water available for recharging is 25m^3/hr and total 1 no. of rain water harvesting tank will be provided for ground water recharging. Detail calculation is given in **Annexure-4**.
vii)	Parking in terms of space & ECS for 4 wheelers, 2 wheelers including Bi-cycles be re-visited separately for residential & commercial complex for dwellers and visitors and floating population indicating the norm as well showing it in the layout map.	As per BDA Norms total ECS required for the proposed residential & commercial building is 152nos. and total ECS provided for the proposed building is 158 nos. So total 158 nos. of 4 wheeler & 27 nos. of 2 wheelers will be provided in the proposed building. Detail Layout plan showing parking plan is attached in **Annexure-5**.
viii)	Both entry & exit Gates for residential & commercial complex to be provisioned separately with adequate dimension & pedestrian rain pathways.	Separate entry & exist gate has been provided for Residential unit with dimension of 6.015m and Separate entry & exist gate has been provided for Commercial unit with dimension of 6.015m. Layout plan showing separate entry & exit for residential & commercial building is attached in **Annexure-6**.
ix)	Green belt of 961.9m^2 (exactly 20%) of plot area detail calculation with dimension continuous around the boundary showing in the layout	Total greenbelt area provided for the proposed building is 1104.03 sqm is 21.14% of the total plot area (5221.15 sqm). We proposed to develop three tier hierarchal

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	map be submitted.	greenbelt along the periphery of the building. Greenbelt drawing is attached in **Annexure-7**.
x)	Detail plan with calculation of solar power consumption against generation with percentage of the same against total power demand, both for street lighting and open space be submitted.	Total power generation from solar system is 107.8 kw through 75 nos. of PV Panels & 60 nos. of Solar Street Lighting. Total power demand of the proposed building is 1652.8 kw. So total solar power generation from the proposed building is 6.5% of total power demand. Details solar calculation is attached in **Annexure-8**.
xi)	Stack height of DG set (S) with installation drawing be submitted.	For required backup power, 2x250 KVA & 1x125 KVA DG sets will be proposed for the proposed building. The stack height of the DG set is 43m. The exhaust shall be provided as per pollution norms laid by CPCB. Since our DG Sets location are along the compound wall, we proposed the vent pipe along the building wall to highest point of the building & vent is 3m in highest point. Detail proposal for DG sets is attached in **Annexure-9**.
xii)	Traffic study be undertaken by domain expert at entry & exit gates of the project and intersecting point of the lead road of the project with NH / Public road with decongestion plan (as & if necessary) based on study finding taking into consideration traffic load 10years ahead with this project and projects in the vicinity & public traffic be submitted.	We have already deposit the fee & building plan to Indian Institute of Technology (IIT) Bhubaneswar for vetting of Traffic Report. Traffic Study report is attached in **Annexure-10**.

After detailed discussion, the SEAC decided to take decision on the proposal after the site visit by the sub-committee of SEAC.

ITEM NO. 14

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. AMARJOTHI GRANITES INDIA PVT. LTD. FOR BHAGABANPUR DECORATIVE STONE MINES OVER MINING LEASE AREA OF 31.808 HA. AT VILLAGE- BHAGABANPUR, TAHASIL- BERHAMPUR, DIST- GANJAM OF SRI SURESH CHANDRA PRADHAN – EC

1. The proposal is for Environmental Clearance of M/s. Amarjothi Granites India Pvt. Ltd. for Bhagabanpur Decorative Stone Mines over mining lease area of 31.808 Ha. at village- Bhagabanpur, Tahasil- Berhampur, Dist- Ganjam of Sri Suresh Chandra Pradhan.
2. As per the EIA Notification S.O. 1533, dated 14th September 2006 and subsequent amendments, this project falls under Category B (B1) Project or Activity 1(a) Mining of minerals
3. Terms of Reference (ToR) has been granted by SEIAA, Odisha vide letter no. 323/SEAC-39, dated 19.10.2019.

4. Baseline Data was collected from November 2019 to January 2020 (Post monsoon season).
5. The public hearing for environment clearance of enhancement in production of decorative stone from Bhagabanpur Decorative Stone Mines of M/s Amarjothi Granites India Pvt. Ltd. over an area of 31.808 Ha at Bhagabanpur village under Berhampur tehsil of Ganjam district, Odisha was conducted on 26.10.2021. The major issues are employment, peripheral development, road development, plantation and pollution control etc.
6. The Bhagabanpur Decorative Stone Deposit over 43.36 acres or 17.547 Ha in village Bhagabanpur under Kukudakhandi Tahasil of Ganjam District, Odisha has been 17.01.1996 in favour of M/s Amarjothi Granites (India) Pvt. Ltd upto 16.01.2006.1st renewal application made on 17.09.2005 for 20 years. However, the lease period will be extended for 30 years from 17.01.1996 to 16.01.2026 as per section 8(2) of Odisha Minor Mineral consession rule, 2016.
7. **Location and Connectivity** - The mining lease area is located in Village Bhagabanpur under Berhampur Tahasil of Ganjam District, Odisha and is on Khata No. 215, Plot No. 4/P & 6, Kissam - Parbat (Abada Ajogya Anabadi) covers under Toposheet No: 74A/11. It is bounded by Latitude – 19° 20' 29" - 19° 20' 47" N & Longitude – 84° 42' 45" - 84° 43' 20" E. Nearest railway station is Berhampur, 10 km away. Nearest airport is Bhubaneswar, 162 km away. Nearest town is Berhampur, 8 km away. Medical facilities are available at Berhampur which is about 8km. Nearest NH is NH 16 at 10km and SH 17 at 2km.Nearest habitation is Bodalundi at 500m and Bhagabanpur at 1km.The study area within 10 Km of the project site is devoid of any national parks, sanctuaries, Biosphere reserves, wild life corridors, tiger/elephant reserves etc.
8. Land pattern use as shown in the satellite imagery of the study area shows that the project area constitutes mainly agricultural land (65%).
9. Mining plan is being approved by Director of Geology, Odisha, Bhubaneswar vide letter no. MXXII-(a)-12/2020/2881/DM dated 06.04.2021.
10. **Method of Mining** - The mining is done by opencast semi mechanized method on single shift basis with deployment of machineries like Hydraulic Rock Drillers, jack hammer drill, compressor, hydraulic excavator, Diamond wire rope Cutter & tippers. Height and width of the benches will be 6m each and the overall slope angle of the benches will be around 90°. The overall slope of the quarry will be 45°.
11. **Resource and Reserves** - The mine has the Resource of Decorative stone is 27,57,380 cum and reserve of Decorative stone is 23,89,308 cum.
12. **Production and waste management details** - It is proposed to excavate 30000 Cum of ROM per annum out of which 26250 Cum shall be Marketable rock and 3750 Cum will be non saleable in nature. During the plan period 199500 cu.m of waste and 16625 cu.m of sub grade will be generated. The waste and sub grade generated during the plan period will be dumped over an area of 1.0 Ha. During the conceptual period (life of mines) about 424500cu.m of waste will be generated. The waste generated during the proposed plan period and conceptual period will be dumped over an area of 3.580 Ha with a maximum height of 10m.
13. **Power Requirement** - There is no electricity connection to the lease area. A 100 kVA DG set is used as source of power. The diesel consumption in the mines for operation of machinaries and DG set will be 8 liters per hour.

14. **Water Requirement** - 8KLD of water shall be required which will be sourced from Rain water harvesting and Tanker from nearby villages.
15. **Rain Water Harvesting** - Rain water will be harvested through rain water harvesting tank of dimensions 40mx40mx12m to store around 822cum of rain water.
16. **Green Belt**– 6.726 Ha area will be under plantation in the 5 year plan period. 2100 number of saplings will be planted as per the approved mining plan.7450 number of saplings will be planted by the end of conceptual period. Local species will be selected for plantation in consultation with DFO. Road side plantation will be carried out to control soil erosion and air pollution. Post plantation care will be taken properly to achieve Survival rate of 80-85% to maintain suitable growth & tree density.
17. **Employment Potential** - Total number of employee will be around 73 which includes skilled, semi-skilled & unskilled category in the mine.
18. The costs of the project will 3.5 cores. The capital cost of environmental mitigation measures is estimated to be Rs. 23 Lakhs and the estimated recurring cost of environmental mitigation measures for the proposed project has been estimated to be Rs. 9.7 lakhs. The cost for peripheral developmental activities is 25 Lakhs.
19. The Environment consultant **M/s Kalyani Laboratories Pvt. Ltd. Bhubaneswar** along with the proponent have made a detailed presentation on the proposal before the Committee on 17.01.2022.
20. The SEAC in its meeting held on dated 17.01.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent. The project 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)	Sri Jagamohan Singh Arora, one of the Directors of M/s. Amarjothi Granites (India) Pvt. Ltd., Rajasthan has appointed Sri Suresh Chandra Pradhan, Bhubaneswar as power of Attorney on dated 29.3.2016 and is revocable at any time. “Power of Attorney” can be executed by virtue of a “Board Resolution” and not by any single Director and the Board resolution (based) to this effect is to be submitted by the company Secretary duly notarized / affidavit from Executive Magistrate. The Director / or any person so authorized by the Board to appoint power of Attorney shall be made by a resolution as stated above.	Resolution copy made by Board of directors attached **Annexure 1**.
ii)	Since, non-saleable waste /OB / intermediate waste etc. is huge, the management of the some with year wise utilization and average moving inventory (for 5 years) be submitted.	Details of waste management for 5 years is attached. **Annexure 2.**
iii)	Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.	Details of rain water harvesting with rain water recharge details attached. **Annexure 3.**

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
iv)	To confirm "Zero discharge" including silt management with SOP for di-siltation periodically since 65% of the surrounding land is Agricultural land.	SOP for silt management and de-siltation of the settling pond is attached as **Annexure 4.**
v)	It is stated by project proponent that Rs. 2 lacs/year will be spent for maintenance of panchayat road of 2 km distance which appears to be too low. Therefore, a letter need to be submitted to this effect that the projected budget is sufficient for maintenance of the road from appropriate Govt. Authority.	Letter from BDO is attached for use of road for transportation and proposed budget for road maintenance is attached as **Annexure 5**.
vi)	Use of village / panchayat road need permission from concerned BDO / Govt. Authority.	Permission letter from BDO is attached **Annexure 5.**
vii)	Adequate plantation with right species shall be done on both sides of the haulage road in connection with the concerned DFO	Details of the plantation plan along the haul road is attached as **Annexure 6.**
viii)	Perennial sprinkling arrangement shall be in place on the haulage road for fugitive dust suppression.	Fugitive dust .suppression plan is attached as **Annexure 7.**
ix)	Perennial maintenance of haulage road/village / panchayat road shall be done by the project proponent as required in connection with the concerned Govt. Authority.	The PP will be responsible for perennial maintenance of the panchayat road. The cost will be borne by the PP of Rs.2.0 Lakhs or actual cost of maintenance which ever will be more. BDO has mentioned in his letter regarding the maintenance of the road by the lessee.
x)	Since manpower requirement is 73 besides floating population, a STP of required capacity and design shall be in place.	A STP of 10 KLD capacity will be installed within the lease area. Detail design of the STP is given in **Annexure 7**.
xi)	It is stated by the project proponent in disaster and risk management that "Bench slope failure" may occur. In such a situation, a contingency plan for the same / to address the same be submitted.	The decorative stone benches are generally stable as it is solid rock mass. No blasting occurs in the process of mining so that the chance of slope failure in the mines will be less. The slope of the benches will be maintained at 85^{o} to 90^{o} which will make the bench stable. The bench slopes are to be monitored regularly by sensitive instruments at precise level at regular intervals to check for any possible ground movement. A well-developed drainage system over the leasehold area is to ensured & check the water flows out of the lease area. Provision of safety belt or rope while persons are at work at the quarry sides 'or benches from where there are chances of falling down for more than 1.8m.

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

ITEM NO. 15

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR GUNUPUR SAND BED - II OVER AN AREA OF 5.261 HA/13.00 ACRES FOR PRODUCTION OF 25100 C.UM. AT VILLAGE- GUNUPUR, TAHASIL - GUNUPUR, DISTRICT - RAYAGADA OF TAHSILDAR GUNUPUR – EC

1. This proposal is for Environmental Clearance for Gunupur Sand Bed - II over an area of 5.261 Ha/13.00 acres for production of 25100 C.um. at Village- Gunupur, Tahasil - Gunupur, District - Rayagada of Tahsildar Gunupur.
2. As per EIA Notification dated 14.09.06 and its subsequent amendments S.O.141 (E) on dated 15.1.2016, the project falls under, Category "B1".
3. The proposed project is of Gunupur Sand Bed over an area of 5.261 Ha or 13.00 acres for production of 25100 C.um. at Village- Gunupur, Tahasil-Gunupur, District-Rayagada, State-Odisha.
4. This project is proposed by Tahasildar of Gunupur. The Government gave consent for mining in favor of Tahasildar of Gunupur.
5. Mining Plan has been approved by Directorate of Geology, Koraput vide memo letter no. 679/mines Dated- 08/05/2020.
6. The TOR was issued for this project vide letter No. 10240/SEIAA on dated 17.12.2020.
7. The Public Hearing was held on 08.09. 2021 at (11.00 A.M) at Town hall, Gunupur under Gunupur Municipality, Rayagada.
8. **Location and Connectivity** - The area under discussion is featured in Survey of India Topo Sheet No – E44F16 and is bounded between the Latitude -19° 05' 58.74" N to 19° 06' 11.23" N, Longitude– 83° 48' 45.47" E to 83° 48' 53.58" E and is on Khasra no. 330&12, Plot no. 710/1624, 692, 702/1623 & 79. The nearest railway Station is Gunupur Railway Station is approx 4.5 km. Nearest Airport is Biju Patnaik international Airport is approx 245 km. Nearest State Highway is SH-4 is approx 0.8 km. Nearest village is Pujaharigada village is 0.75 km from the proposed area. Nearest forest is Peddakonda Reserve Forest / South Odisha Eastern Ghat Range 5.00 Km.
9. **Total Reserves and Production** - The total geological reserve has been estimated as 52610 Cum. Similarly, the mineable reserve of river bed sand is worked out to be 42255 Cum. The project has been proposed for a total production of 35140 Cum of Sand from this Quarry. During the plan period maximum of 25100 Cum of sand will be produced per annum by Open Cast Manual mining method. Excavation & loading of sand into the dumpers and trucks/tractors will be done manually.
10. **Replenishment Study Report** Replenishment study has been done during the pre-monsoon (May-2021) and post-monsoon season (Nov - 2021). This shows that replenishment quantity of sand is almost 24989.75 cum. or 24990 cum, same as proposed mining capacity i.e. 25,100 cum per year.
11. **Water Requirement** – The total water requirement will be 8 KLD for different purposes like Domestic, Dust suppression, plantation purposes.
12. **Power Requirement** - No use of electric power as the operation will be done in the day time. However solar lights will be used for day to day living purposes.
13. **Green Belt Development**: Greenbelt plantation will be by planting 208 saplings of

suitable species per annum by the lessee in vicinity of the river bank ,haulage roads and near village**.**

14. **Employment Potential** - A total of 21 nos. of workers are to be employed in sand quarry.
15. The baseline data was collected for the winter season i.e. October 2020 to December 2020 in the 10 km study area.
16. The project cost is estimated to be Rs. 40.0 lakhs and there is a budgetary provision of Rs.4.08 lakhs as capital cost and Rs.3.12 lakhs as recurring cost towards environmental protection measures.
17. The Environment consultant **M/s P&M Solution Pvt. Ltd. Noida** along with the proponent has made a presentation on the proposal before the Committee on 17.01.2022.
18. The SEAC in its meeting held on dated 17.01.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent. The project proponent has furnished the compliance and the SEAC verified the same as follows:

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th></tr>
<tr><td rowspan="4">i)</td><td colspan="2">The following information be submitted by the project proponent.</td></tr>
<tr><td>a) Width of the river</td><td>Width of river is approx. 235 mtr.</td></tr>
<tr><td>b) Extraction area be indicated in absolute value area as % of ML area against the norm of sand mining by MoEF&CC.</td><td>Extraction will be carry out in about 2.84 ha out of 5.261 ha, Which is about 53.9% of the lease area. This is as per the norm of sand mining by MoEF & CC.</td></tr>
<tr><td>c) “No mining zone” safety zone, distance of ML boundary from river bank, distance of ML boundary from nearest habitation, distance of haulage road from village road, distance from river bridge or NH/SH or large infrastructure (both upstream and downstream) vis-à-vis the norm for the same as per sand mining management as per MoEF&CC in a tabular form.</td><td>
<table>
<tr><td>Nearest habitation</td><td>Limamoda village, approx. 0.4 km in East direction.</td></tr>
<tr><td>Distance of haulage road</td><td>The mine site is well connected by approach road of 943m. Gunupur – Gumuda road is at approx. 0.72 km in NW. This road further connects to SH-4 in SW direction.</td></tr>
<tr><td>Distance from river bridge</td><td>Nearest Road bridge is at Bansadhara Road bridge over Bansadhara River at a distance of 0.67 km in South direction.</td></tr>
<tr><td>NH/SH</td><td>SH-4 is at a distance of 0.8 km in S direction.</td></tr>
<tr><td>River embankment</td><td>Approx. 0.8 km</td></tr>
</table>
Map showing all the features has been attached as **Annexure I**.
</td></tr>
<tr><td>ii)</td><td>It is stated by project proponent that sand extraction / production shall be 25,100 m3 and replenishment / deposition will be 24,000 m3</td><td>Document regarding this has been attached as **Annexure II**.</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th></tr>
<tr><td></td><td>with replenishment factor taken as ‘1’ and depth of mining as “2 meter” and difference between the two is 0.16. Since river flow is from north to south direction, the erosion will happen to right where the river bank is located, that means, bank erosion is unavoidable. Therefore, depth of mining, bank stabilization management be re-visited and submitted to arrest bank erosion including stone pitching on a stretch of bank with plantation between beyond the length of ML and ramp on the bank as well as domain expert advice / consultation of concerned Water Resources Department, Govt. of Odisha.</td><td></td></tr>
<tr><td>iii)</td><td>SOP of sprinkling on haulage road including details of plantation on both side of haulage road and avenue plantation be submitted.</td><td>The length of approach road is approx. 943.2 m. During mining process water sprinkling will be carried out 2 times a day at the rate of 0.5 lt /sq.m. Plantation will be carried out at both side of approach road at a spacing of 2x2m. So, during plan period approx. 945 saplings will be planted.
Water requirement for dust suppression & plantation
<table>
<tr><th>Activity</th><th>Calculation</th><th>Round off Figure in KLD</th></tr>
<tr><td>Dust Suppression</td><td>Total approach road to be water sprinkled = 943.2 m
943.2 m*6m*0.5*2 times/1000 = 5.65 KLD
Total water required is = 5.65 KLD</td><td>5.6</td></tr>
<tr><td>Plantation</td><td>945 plant (along approach road) @ 2 L/per plant = 1890 lts = 1890/1000 = 1.89 or 2.0 KLD</td><td>2.0</td></tr>
</table>
Total water requirement for dust suppression & plantation is 7.6 KLD.</td></tr>
<tr><td>iv)</td><td>Provision of bio-toilet to be ensured and confirmed.</td><td>Bio toilet will be constructed in the village after start of mine under CER activities.</td></tr>
<tr><td>v)</td><td>To ensure safety since school, temple and hospitals are</td><td>There is Govt. hospital & Govt. high school at a distance approx. 5km & temple is at approx. 1.0</td></tr>
</table>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	present in the vicinity.	km which is much far from the lease area. However, regular water sprinkling will be carried out for dust suppression. To ensure safety within the mining area, the speed of the vehicles will be restricted to 10 kmp.

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

i) Revised mining plan shall be prepared based on essential physical criteria as per Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India enclosed as **Annexure - G**.

ii) Regular replenishment study to be conducted and report to be submitted.

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

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

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

ITEM NO. 16

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S HINDUSTAN MINERALS INDUSTRIES FOR BAD AGULA DECORATIVE STONE MINES OVER AN AREA OF 12.019 HA IN VILLAGE: BAD AGAULA, TAHASIL: MUNIGUDA, DIST - RAYAGADA, ODISHA (SUBMITTED UNDER CLUSTER APPROACH - TOTAL AREA UNDER CLUSTER - 28.15 HA) OF SRI HEMANTA KUMAR ROUT – EC.

1. **Bad-agula decorative stone mines cluster over a total area of 28.15 Ha include two decorative stone mines i.e. Bad-agula decorative stone mines over an area of 12.019 Ha and Bad-agula decorative stone mines over an area of 16.131 Ha belongs to same lessee i.e. M/s Hindustan Minerals industries, Odisha. Both the mines are new mines and this is the first EC proposed for the project**

2. As per EIA notification, 2006 and subsequent amendments the Bad-agula decorative stone mines cluster falls under Schedule Sl. No. 1(a) of EIA notification and subsequent amendments the project comes under Category B1. The ToR for preparation of EIA/EMP report of the cluster was approved vide letter no. 9664/SEIAA dated 19.11.2020. This report has been prepared in line with the approved TOR for production of maximum excavation upto6600Cu.m and maximum of 2620 cu.m of decorative stone from each of lease area.

3. Department of Steel & Mines, Government of Odisha has issued the Letter of Intent (LoI) Vide Letter No.7606/S&M, Bhubaneswar dated 04.10.2019. The lease period will be 30 years. Mining plan has been approved The Director of Mines, Bhubaneswar Vide Letter No. Mxxii-(A) 6/2019/5163/Dm Dated 29.07.2020 for 12.019 Ha. The cost of the project will be 200 lakhs. Total man power requirement for 12.019 Ha will be 26 nos.

4. Barha Nala is flowing at a distance of 2Km from the project site. Both mines of the cluster is separated by a waste land of 300m distance. The surface runoff water from the Badagula mines 12.019Ha and Badagula mines 16.131 Ha drains through natural slopes and flows through a nearby drain of 1m width which further joins river Vansadhara.
5. The geological and mineable reserve of Bad Agula Decorative Stone Mine 12.019 Ha is 488662cu.m.
6. A total of 24336 cum (in-situ) or 29204 cum swollen (swell factor 1.2 taken) waste/rejects is likely to be generated during the plan period from the cluster of two mines.
7. However, about 70% of the generated waste will be utilized for maintenance and construction of the haul road, approach and existing roads in the surrounding areas periodically and also be disposed of as minor mineral other than decorative stone with the permission of the competent authority.
8. The non-saleable stones of 12168 cum (in-situ) or 14600 cum (swollen) is likely to be generated during the plan period from both the mines.
9. Mining is essentially proposed by opencast and semi mechanized method with the deployment of machines like L/D bore machine, jack hammer drill, compressor, hydraulic excavators & tippers. The decorative stone blocks will be extracted, loaded and transferred from a quarry face to the stone cutting shop/processing plant/port through trailers/lorries/ trucks.
10. About 10 KLD of water will be used for different purpose which will be sourced from Tanker and Rain water harvesting pond. For dust suppression and plantation 3KLD of water will be required for cluster.
11. The EIA/EMP report is based on the data generated from November 2020 to February 2020 by M/s Kalyani Laboratories Private Limited. The study area is confined to 10 km radius of the ML area.
12. The study area within 10 Km of the project site is devoid of any national parks, sanctuaries, Biosphere reserves, wild life corridors, tiger reserves etc.
13. The ground water in the area is found to be 212-215 mRL. However, the mining activity will continue upto a maximum depth of 316 mRl. So the impact of mining activity on ground water does not envisaged.
14. The plantation will be done over an area of 1.711 Ha in the lease boundary and open spaces available. By the end of conceptual period the dumping and stacking area will be covered under plantation
15. The public hearing is for environment clearance of enhancement in production of decorative stone from Bad-agula decorative stone mines cluster over a total area of 28.15 Ha of M/s Hindustan Minerals industries, Odisha for production of Atvill: Bad-agula under Muniguda Tahasil, Rayagada Disrict, Odisha held on 30.09.2021 at 11.00 am in the forest beat situated near Humagunji village under Bad Agula Gram Panchayat of Muniguda Tehsil of Rayagada District.
16. The updated capital cost and recurring cost (per annum) for the environmental facilities for the project works out to 28.5 lakhs and 6.8 lakh / year respectively for the cluster. The social

development cost for the cluster in compliance to public hearing has been proposed to be ` 24.0 Lakhs.

17. A comparative feature of both the mines in cluster approach are given below:

Sl. No.	Features	Bada Agula Decorative Stone Mine 12.019 ha.	Bada Agula Decorative Stone Mine 16.131 ha.
i)	Grant of lease	The Department of Steel & Mines, Government of Odisha has issued the letter of Intent (LOI) vide Letter No.7606/S&M, Bhubaneswar dated 04.10.2019 in favoour of M/s Hindustan Minerals Industries.	The Department of Steel & Mines, Government of Odisha has issued the letter of Intent (LOI) vide Letter No.8114/S&M, Bhubaneswar dated 24.10.2019 in favoour of M/s Hindustan Minerals Industries.
ii)	Lease period	30 Years	30 Years
iii)	Mining Plan Approval	Mining Plan was approved by the Director of mines, Bhubaneswar vide letter No. MXXII-(a) 6/2019/5163/DM dated 29.07.2020.	Mining Plan was approved by the Director of mines, Bhubaneswar vide letter No. MXXII-(a) 7/2019/5186/DM dated 30.07.2020.
iv)	Category of the project	B1 (New Mines) > 5 Ha	
v)	Cost of the project	200 Lakhs	250 Lakhs
vi)	Manpower Requirement	26 Nos	30
vii)	Production Capacity	Decorative Stone: (Lavender Blue) Excavation of Decorative stone – 2620Cum (Max); ROM – 6600 cu.m (Max)	Decorative Stone: (Lavender Blue) Excavation of Decorative stone – 2620Cum (Max); ROM – 6600 cu.m (Max)
viii)	EMP Cost	Capital Cost: 28.5 Lakhs Recurring Cost: 6.8 Lakhs per annum	

18. The Environment consultant **M/s Kalyani Laboratories Pvt. Ltd. Plot No. 78/944, Millenium City, Pahala, Bhubaneswar - 752101** along with the proponent has made a presentation on the proposal before the Committee on 31.01.2022.

19. The SEAC in its meeting held on dated 31.01.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent. The project 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)	Rain water harvesting calculation and design of the pond proposed thereof be submitted.	Details of rain water harvesting calculation and proposal for storage of rain water for further utilization in the mines and for

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		agriculture is given in **Annexure 1**.
ii)	Though confirmed "Zero discharge" Silt Management with SOP be submitted for periodical de-siltation as a contingency plan / measure.	SOP for silt management with periodical de-siltation as a contingency plan / measures and zero discharge from the lease area is given as **Annexure 2**.
iii)	Provision of STP with capacity be confirmed.	A 5 KLD portable STP is proposed for both the mines in the cluster which will be located within ML area of 16.131 Ha. Details of STP is given in **Annexure 3**.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Kalyani Laboratories (Pvt) Ltd. Pahala, Bhubaneswar on behalf of the proponent, the SEAC approved the EIA/EMP report in cluster approach and recommended the following:**

a) The SEIAA, Odisha may consider to grant Environmental Clearance to individual lease (for **02 nos**. decorative stone leases including the present one) in cluster with specific conditions as per **Annexure-H** after receipt of individual applications from the lessee in cluster along with following documents.
   i) Filled in form-I of individual lease
   ii) Prefeasibility report of individual lease
   iii) EMP of individual lease.
   iv) Approved Mining Plan of individual lease
   v) DLC status of the lease area from concerned DFO as certified by the concerned Tahasildar.
   vi) An undertaking to obtain NOC from CGWA and permission from WR department, Govt. Of Odisha for use of ground water. Accordingly specific condition to be stipulated in EC of individual lease.

ITEM NO. 17

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. HINDUSTAN MINERALS INDUSTRIES FOR BAD AGULA DECORATIVE STONE MINES OVER AN AREA OF 16.131 HA OR 36.86 AC IN VILLAGE: BAD AGAULA, TAHASIL: MUNIGUDA, DIST:- RAYAGADA, ODISHA (SUBMITTED UNDER CLUSTER APPROACH - TOTAL AREA UNDER CLUSTER - 28.15 HA) OF SRI HEMANTA KUMAR ROUT – EC

1. Bad-agula decorative stone mines cluster over a total area of 28.15 Ha include two decorative stone mines i.e. Bad-agula decorative stone mines over an area of 12.019 Ha and Bad-agula decorative stone mines over an area of 16.131 Ha belongs to same lessee i.e. M/s Hindustan Minerals industries, Odisha. Both the mines are new mines and this is the first EC proposed for the project.
2. Since, this is a proposal for grant of EC in cluster approach, this has been already covered in the decision at **Item No. 16**. The SEAC recommended for grant of EC with conditions as recommended in Item no. 16.

ITEM NO. 18

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR CHANDANPUR DECORATIVE STONE (GRANITE GNEISS) MINES DEPOSIT OVER AN AREA OF 9.696 HA, VILLAGE-CHANDANPUR, TAHASIL: LANJIGARH, DISTRICT: KALAHANDI OF SRI AJAY AGARWAL – EC IN CLUSTER APPROACH.

1. **The Environment Impact Assessment and Environmental Management Plan of Chandanpur Decorative stone Cluster with total cluster area of 13.298 ha including ML area 9.696 Ha and ML area 3.602 Ha of Lessee – Sri Ajay Kumar Agrawal, address all the environment related issues and is prepared in accordance with the requirements Ministry of Environment and Forest, Govt. of India, EIA notification (2006) and subsequent amendments under cluster approach.**
2. The project comes under Category B1 (>5.0 Ha <100 Ha).
3. The LOI has been issued vide Letter No.7100/S&M, Bhubaneswar dated 02.08.2019 (9.696 Ha) in favour of M/s Jay Minerals. The lease period will be 30 years. The mining plan has been approved vide letter no. MXXII-(a) 8/2020/5435/DM dated 12.08.2020.
4. The cost of the project will be 200 lakhs. Total man power requirement for the cluster will be 14 nos. Production from the mines will be Decorative stone – 4388 Cum (Max); ROM – 14625 cu.m (Max). Average water requirement for mines will be 5 KLD and will be sourced from tanker for domestic purpose and RWH for dust suppression and plantation.
5. The Mining cluster under reference represents an undulating topography comprising of a hill ridge with steep slope. The mine Cluster area of 13.298 Ha is covered in the Survey of India Toposheet No. E44F9. Chandanpur Decorative stone mines of 9.696 Ha is bounded by Latitude- 19°46'46.68"N to 19°46' 59.86"N and Longitude-83°25'47.74"E to 83°26'5.40"E.
6. The highest and lowest elevations of the area are 390mRL in the Central part and 376mRL in the SW part of the M.L area respectively Overall slope of the area is due north west for both the mines in the cluster.
7. The geological and mineable reserve of is 1146595cu.m and 1009000cu.m respectively.
8. A total of 78427 cum (in-situ) waste/rejects is likely to be generated during the plan period from the cluster of two mines.
9. Mining is essentially proposed by opencast and semi mechanized method with the deployment of machines like L/D bore machine, jack hammer drill, compressor, hydraulic excavators & tippers.
10. In the present case the SEIAA, Odisha vide Letter No 297/SEIAA, dated 02.02.2021 has finalized the Terms of Reference (ToR) for undertaking detailed EIA study for the purpose of obtaining environment clearance.
11. The EIA/EMP report is based on the data generated from October 2020 to April 2020 by M/s Kalyani Laboratories Private Limited. The study area is confined to 10 km radius of the ML area.
12. The mining activity is not likely to intersect ground water as the ground water table occurs at 340mRL in summer season and in Rainy season at 350mRL. The mining will go up to the maximum depth of 376mRL. So, there will be no chance of intersecting the ground water table

by the mining activity during the conceptual period also. So, the impact of mining on the ground water is not envisaged.

13. The mining lease area does not include any forest land. The ML area and the buffer zone is devoid of any endangered flora and fauna species. The existing vegetation with in the ML area includes few shrubs which are sparsely scattered. There is no ecological sensitive areas/ zone located within the 10 Km radius of the proposed cluster.
14. A total of 78427 cum (in-situ) waste/rejects is likely to be generated during the plan period from the cluster of two mines.
15. However, about 70% of the generated waste will be utilized for maintenance and construction of the haul road, approach and existing roads in the surrounding areas periodically and also be disposed of as minor mineral other than decorative stone with the permission of the competent authority.
16. The plantation will be done over an area of 1.295 Ha in the lease boundary and open spaces available. By the end of conceptual period the dumping and stacking area will be covered under plantation.
17. The public hearing in respect of the above project was held on 15.09.2021 as per schedule and the venue in accordance with the EIA notification S.O.1533 (E) dt.14.09.2006.
18. The updated capital cost and recurring cost (per annum) for the environmental facilities for the project works out to 30.5 lakhs and 8.2 lakh / year respectively. The proposed social development cost in compliance to public hearing is proposed to be 19.0 Lakhs.
19. A comparative feature of both the mines in cluster approach are given below:

Sl. No.	Features	Chandanpur Decorative Stone Mine 9.696 ha.	Chandanpur Decorative Stone Mine 3.602 ha.
i)	Grant of lease	The Department of Steel & Mines, Government of Odisha has issued the letter of Intent (LOI) vide Letter No.7100/S&M, Bhubaneswar dated 02.08.2019 in favour of M/s Jay Minerals	The Department of Steel & Mines, Government of Odisha has issued the letter of Intent (LOI) vide Letter No.6606/S&M, Bhubaneswar dated 06.09.2019 in favour of M/s Jay Minerals.
ii)	Lease period	30 Years	30 Years
iii)	Mining Plan Approval	Mining Plan was approved by the Director of mines, Bhubaneswar vide letter No. MXXII-(a)8/2020/5435/DM dated 12.08.2020.	Mining Plan was approved by the Director of mines, Bhubaneswar vide letter No. MXXII-(a) 9/2020/5439/DM dated 12.08.2020.
iv)	Category of the project	B1 (New Mines) > 5 Ha (Taking Both into cluster situation)	
v)	Cost of the project	` 200 Lakhs	` 200 Lakhs

Sl. No.	Features	Chandanpur Decorative Stone Mine 9.696 ha.	Chandanpur Decorative Stone Mine 3.602 ha.
vi)	Manpower Requirement	14 Nos	14 Nos.
vii)	Production Capacity	Decorative Stone: (Granite Gneiss) Excavation of Decorative stone – 4388 Cum (Max); ROM – 14625 cu.m (Max)	Decorative Stone: (Granite Gneiss) Excavation of Decorative stone – 2504Cum (Max); ROM – 8346 cu.m (Max)
viii)	EMP Cost	Capital-30.5 Lakh, Recurring-8.2 Lakh	

20. The Environment consultant **M/s Kalyani Laboratories Pvt. Ltd. Plot No. 78/944, Millenium City, Pahala, Bhubaneswar - 752101** along with the proponent has made a presentation on the proposal before the Committee on 31.01.2022.

21. The SEAC in its meeting held on dated 31.01.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent. The project 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)	Rain water harvesting calculation and design of the pond proposed thereof be submitted.	Details of rain water harvesting calculation and proposal for storage of rain water for further utilization in the mines and for agriculture is given in **Annexure 1**.
ii)	Though confirmed "Zero discharge" Silt Management with SOP be submitted for periodical de-siltation as a contingency plan / measure.	SOP for silt management with periodical de-siltation as a contingency plan / measure and zero discharge from the lease area is given as **Annexure 2**.
iii)	Provision of STP with capacity be confirmed.	A 5 KLD portable STP is proposed for troth the mines in the cluster which will be located within ML area of 9.696 Ha. Details of STP is given in **Annexure 3**.
iv)	How proponent will provide water for irrigation of Agricultural lands from rain water harvesting pond as committed during public hearing since streams coming out of mines hillock and subsequent irrigation of Agricultural lands will be stopped / Details to be submitted.	A rain water harvesting pond with capacity - 50 x 50 x 5m (12500 Cu.m) will be constructed within the lease area of 3.602 ha for the mining purposed. Further another pond of 50 x 50 x 5m (12500 Cu.m) will be constructed in the NW corner of 9.696 Ha lease area. This water stored in the pond (12500 Cu.m) capacity will be fenced and a separate approach road will be developed to the pond and will be utilized for local people. The map showing the location of Rain water harvesting ponds and garland drains is given in **Annexure 4**.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Kalyani Laboratories (Pvt) Ltd. Pahala, Bhubaneswar on behalf of the proponent, the SEAC approved the EIA/EMP report in cluster approach and recommended the following:**

a) The SEIAA, Odisha may consider to grant Environmental Clearance to individual lease (for

02 nos. decorative stone leases including the present one) in cluster with specific conditions as per **Annexure-H** after receipt of individual applications from the lessee in cluster along with following documents.

i) Filled in form-I of individual lease
ii) Prefeasibility report of individual lease
iii) EMP of individual lease.
iv) Approved Mining Plan of individual lease
v) DLC status of the lease area from concerned DFO as certified by the concerned Tahasildar.
vi) An undertaking to obtain NOC from CGWA and permission from WR department, Govt. Of Odisha for use of ground water. Accordingly specific condition to be stipulated in EC of individual lease.

ITEM NO. 19

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR CHANDANPUR DECORATIVE STONE MINES OVER AN AREA OF 3.602 HA, VILL- CHANDANPUR, TAHASIL- LANJIGARH, DISTRICT- KALAHANDI OF SRI AJAY AGARWAL – EC

1. The Environment Impact Assessment and Environmental Management Plan of Chandanpur Decorative stone Cluster with total cluster area of 13.298 ha including ML area 9.696 Ha and ML area 3.602 Ha of Lessee – Sri Ajay Kumar Agrawal, address all the environment related issues and is prepared in accordance with the requirements Ministry of Environment and Forest, Govt. of India, EIA notification (2006) and subsequent amendments under cluster approach.
2. Since, this is a proposal for grant of EC in cluster approach, this has been already covered in the decision at **Item No. 18**. The SEAC recommended for grant of EC with conditions as recommended in Item no. 18.

ITEM NO. 20

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR ANABADI DECORATIVE STONE (GARNETIFEROUS GRANITE GNEISS) MINES DEPOSIT OVER AN AREA OF 12.100 HA./29.90AC. LOCATED IN VILLAGE - ANABADI NO.21, UNDER TAHASIL - BANDHUGAON, DISTRICT - KORAPUT, ODISHA OF SRI NEMANI RAMKRISHNA – EC.

1. The Environment Impact Assessment and Environmental Management Plan of Anabadi Decorative stone Mines address all the environment related issues and is prepared in accordance with the requirements Ministry of Environment and Forest, Govt. of India, EIA notification (2006) and subsequent amendments.
2. Brief profile of the project are given below:

Sl. No.	Features	Anabadi Decorative Stone Mines over an area of 12.100 Hectares
i)	Grant of Lease	The applied Mining lease area over 12.100 Hectares or 29.90 Acres in village Anabadi, under Bandhugaon Tahasil of Koraput district, Odisha was granted by Department of Steel & Mines, Govt. of Odisha vide Letter No. $\frac{5641}{\text{IV (DS) SM}-04/2019}$ Bhubaneswar, on dated

		02.08.2019 in favour of Sri Nemani Ramakrishna for 30 years.
ii)	Lease Period	30 Years
iii)	Mining Plan Approval	The Mining Plan along was approved by Director of Mines, Odisha, Bhubaneswar vide letter no. MXXII-(a) 9/2019/5089/DM on dated 23.07.2020 for a period of five years
iv)	Category of The Project	B1 (New Mines) Lease area > 5.0 Ha (Minor Minerals)
v)	Cost of The Project	200 Lakhs
vi)	Manpower Requirement	25 Nos
vii)	Production Capacity	18000 m^3 of Rock mass, 3600m^3 of Decorative stone, 900 m^3 of Khanda per annum with maximum production of 4000 cu.m of decorative stone
viii)	Elevation above mean-sea-level (MSL)	Highest altitude of 660 m and the lowest point is about 610 m.
ix)	Nearest Highway/State High Way	SH 36: 8 Km SH 4: 11 Km
x)	Nearest Railway Station	Jemedipeta railway Station: 7.2Km Ladda Railway Station: 8Km
xi)	Nearest major habitation	Bandhugaon: 20 Km
xii)	Intersect Boundaries	Odisha-Andhra Pradesh: 8 Km
xiii)	Nearest River	Nagaballi River: 8.2 Km
xiv)	RaniturgaNadi	6 Km
xv)	Karlapat Wild Life Sanctuary	17.2 km
xvi)	Bio-Reserves	Nil within 10 Km radius
xvii)	Wild life (Elephant) corridors	Nil within 10 Km radius

3. The Anabadi a Decrative Stone Mines over an Area of 12.100 Ha or 29.90 Acre located in the village Anabadi no 21, under Tahasil - Bandhugaon, District Koraput and Odisha. During the total plan period (five years), it has been targeted to excavate 90,000 m^3 of rock mass, 18000 m^3 of decorative stone, 4500 m^3 of khanda and remaining 67500 m^3 of waste/rejects.
4. The geological and mineable reserve of Anabadi Decorative Stone Mine 12.100 Ha is 381510 cu.m and 202968 cu.m respectively.
5. During the plan period of five years total volume of decorative stone will be 18,000 cum, total volume of presently non-saleable stone will be 4,500 cum and total volume of waste will be 67,500 cum.
6. A total of 67500 m^3 (in-situ) or 87750 m^3 swollen (swell factor of 1.3) waste/rejects is likely to be generated during the plan period. These wastes will be utilized con-currently for construction and maintenance of road in the lease area. Remaining wastes will be sold time to time for construction purpose, after obtaining required permission of Govt. authorities. For temporary storing of these wastes, an area of 0.695 Ha has been earmarked in the southern part of the M.L area.

7. Mining is proposed by opencast and semi mechanized method with the deployment of machines like L/D bore machine, jack hammer drill, compressor, hydraulic excavators & tippers.
8. The decorative stone blocks will be extracted, loaded and transferred from a quarry face to the stone cutting shop/processing plant/port through trailers/lorries/ trucks.
9. Total water requirement for the project will be 5 KLD out of which 2 KLD will be required for drinking and domestic purpose and 1.5 KLD for dust suppression and 1.5 KLD for plantation purpose. Source of domestic water will be nearby village well. No electricity connection within ML area.
10. A total of 25 people have been employed for smooth operation of the mine.
11. The EIA/EMP report is based on the data generated from October 2020 to December 2020 by M/s Kalyani Laboratories Private Limited. The study area is confined to 10 km radius of the ML area.
12. From the soil analysis result, it can be concluded that the soil of the area is having low fertility in terms of Nitrogen and medium in terms of Potassium content and high in terms of Phosphrous content. The cultivation observed in the agricultural fields is Paddy, Cotton, Sunflower, Fax Seed, Maize, Small millet and vegetables.
13. During the study period, the concentration of PM_{10} in the project site varies from 33.6-37.5 $\mu g/m^3$ and from 29.5-53.8 $\mu g/m^3$ in the nearby villages. The value of $PM_{2.5}$ in the project site is 15.3-19.8g/m^3 and the average of $PM_{2.5}$ varies from 16.8-22.6 $\mu g/m^3$ in the surrounding villages.
14. The pH of the sample water ranges from 6.8-7.2, EC value ranges from 0.118-0.200 mS/cm, D.O ranges from 6.8-7.1 mg/l, BOD in nearby waterbody is less than 1 mg/L, TDS ranges from 90-150 mg/l, total hardness varies from 64-100, nitrate value ranges from 0.3-0.6 mg/l, Fluoride content ranges from 0.4-0.8 mg/l.
15. As Per the data it has been observed that the pH of the ground water varies from 6.5 To 7.6, Chlorides Ranges From 6.0-18.0 Mg/L, Sulphates value found to be less than 0.01, Fluoride Ranges low in lease area i.e<0.05, Hardness varies from 48-80 mg/l, Total dissolved solid 70-140 mg/l & the above results shows that ground water is suitable for human consumption at free place. The water quality of the area has been analysed as per IS 10500: 2012 and found to be suitable for drinking purpose. The water does not contain any physical or chemical contamination.
16. The study area within 10 Km of the project site is devoid of any national parks, sanctuaries, Biosphere reserves, wild life corridors, tiger reserves etc.
17. The prediction of air quality due to proposed activities through simulation model shows that, taking into account of all the conceptual particulate matter generating area of decorative stone mining at Anabadi as the source parameter the maximum incremental Ground Level Concentration (GLC) of PM_{10} will be 1.11 $\mu g/m^3$ in W direction at a distance of 100m in the lease area. The resultant concentration of PM10 will be 38.51$\mu g/m^3$ which is well below the prescribed National standard of ambient air quality.
18. The mining activity is not likely to intersect ground water as the ground water table occurs at 540 mRL in summer season and in Rainy season at 550 mRL. The mining will go up to the

maximum depth of 612 mRL. So there will be no chance of intersecting the ground water table by the mining activity during the conceptual period also.

19. The plantation will be done over an area of 1.552 Ha in the lease boundary and open spaces available. By the end of conceptual period the dumping and stacking area will be covered under plantation

20. The Public Hearing in respect of Environment Clearance for Anabadi Decoratve Stone (Garnetiferous Granite Gneiss) of Sri Nemani Ramakrishna for the purpose of achieving maximum production capacity of 3600 m3 per annum of decorative stone over an area of 12.100 Ha. at Village Anabadi No. 21, under Bandhugaon Tahasil of Koraput District, Odisha was conducted on Dtd.17.11.2021 at 11 A.M. over plot No. 70, Khata No.23, in Mundapadar village under Bandhugaon tehsil of Koraput district, Odisha. The major issues raised during public hearing area pollution control, health, education, drinking water facility, employment for the local youth etc.

21. The updated capital cost and recurring cost (per annum) for the environmental facilities for the project works out to ` 9.5 Lakhs and ` 5.7 Lakh / year respectively. The cost allocated for social developmental work as per commitment made during public hearing will be ` 32.80 Lakhs.

22. The Environment consultant **M/s Kalyani Laboratories Pvt. Ltd., Plot No. 78/944, Millenium City, Pahala, Bhubaneswar – 752101** along with the proponent has made a presentation on the proposal before the Committee on 04.02.2022.

23. The SEAC in its meeting held on dated 04.02.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent. The project 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)	Dump management with detail calculations of waste utilization / inventory / sale including its chemical characteristics be submitted.	Details of waste management and waste utilization and composition of waste has been given as **Annexure 1**.
ii)	Water management with rain water harvesting along with calculation be submitted.	Details of rain water harvesting calculation and proposal for storage of rain water for further utilization in the mines and for agriculture is given in **Annexure 2.**
iii)	Local people should get employment owing to sensitivity of the area.	80% of the total man power requirement will be from the local villages. An undertaking has been submitted in this regard **Annexure 3**.
iv)	Silt management including procedure for silt management for de-silting of surrounding water body(s) / Agricultural land be submitted.	SOP for silt management with periodical de- siltation as a contingency plan /measures and zero discharge from the lease area is given as **Annexure 4**.
v)	Proposed “Zero discharge” mechanism be submitted.	Details of surface runoff, rain water harvesting and zero discharge from the lease area is given in **Annexure 4**.
vi)	Proposed budget for CSR / CER as	The budget proposed for CSR/ CER in

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	per the law with due approval of the Govt. authority be submitted.	compliance to public hearing has been approved by BDO. **Annexure 5**.
vii)	Details of composition of waste is to be provided.	Analysis report of waste has been attached with **Annexure 1**.
viii)	Reduction in cutting of tress and promote transplantation of tress on safety zone.	No cutting of trees will be done due to mining activity. The trees which are existing within the lease area are mostly in the safety zone. An undertaking has been submitted for not cutting of any tree during mining operation. **Annexure 6**.
ix)	NOC from the concerned BDO for use of Panchayat/ village road for transportation of minerals.	NOC from BDO has been obtained for utilization of Panchayat road for transportation of decorative stone from the lease area to the polishing unit. **Annexure 7**.
x)	Details of Rain Water Harvesting Pond (s) with number and design vis- a- vis the adequacy of the same be submitted.	Details given.

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

ITEM NO. 21

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S MANIKESWARI MINERALS FOR BANKIA QUARTZ AND GEMSTONE MINES OVER AN AREA OF 21.092 HA AT VILLAGE BANKIA, TEHSIL- BIRAMAHARAJPUR, DIST- SONEPUR, ODISHA OF SRI RAJENDER KUMAR AGARWAL (PROPRIETOR) – EC.

1. The Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) carried out for the Bankia Quartz and Gemstone mines over an area of 21.092 Ha, at Village- Bankia under Biramaharajpur Tahasil of Sonepur District, Odisha.

2. Brief profile of the project are given below**:**

Sl. No	Salient Features	Description
i)	Total applied ML area	21.092 ha
ii)	Village	Bankia
iii)	District and State	Sonepur, Odisha
iv)	Land Category	Agricultural land, Grazing land and waste land
v)	Toposheet No.	73D/1
vi)	Latitude	20°57’01”N
vii)	Longitude	84°05’38”E
viii)	Nearest Town	Biramaharajpur (12Km)
ix)	Nearest Railway station	Charmal (20Km)
x)	Nearest Forest	Hatalimund Reserve Forest: 6Km, W

Sl. No	Salient Features	Description
xi)	Reserves	Total Geological Reserve : 539750T Total Mineable Reserve : 407750 T
xii)	Ore to be mined	Quartz & Gemstone
xiii)	Life of the mines	50 Years as per MMDR Act 2015
xiv)	Total Waste generation	8286 Cu.m (During proposed plan period)
xv)	Stripping Ratio	1: 0.17
xvi)	Water requirement	8000 litres per day for domestic and non-domestic purpose
xvii)	Source of water	Domestic water requirement will be sourced from dug well and the water requirement for non-domestic purpose stone will be sourced from mined drainage water
xviii)	Man power	44
xix)	Transport	By Truck/ Tippers
xx)	Cost of Project	300 lakhs

3. The mine is granted for mining of Quartz and Gemstone deposit granted in favour of M/s Manikeswari Minerals on 07.01.2017, by Department of steel and Mines, Govt. of Odisha, Bhubaneswar. The mining plan has been approved by Directorate of Geology, Govt. of Odisha vide letter no. **7950/DM** dated 15.05.2003 and modified mining plan has been approved vide letter No.**BBS / SNP/Qtz & Gem / MP-255 on dated 29.09.2005.**

4. In a view to obtain environmental clearance for Bankia Quartz and Gemstone mines, has entrusted the assignment to M/s Kalyani Laboratories Private Limited Bhubaneswar for preparing EIA /EMP report.

5. Kalyani Laboratories private limited (MoEF& CC and NABL accredited Lab) has gathered required baseline data for winter season (December 2019 to February 2020) and accordingly prepared the EIA / EMP report.

6. The area represents a plain and less undulating topography with a gentle slope towards South - East whose major part is covered with grazing land and agricultural land. The highest and lowest counters marked in the area are 128 mRL and 119 mRL respectively. The area falls under survey of India Toposheet no. 73D/1 between latitude 20°57'01"N and longitude 84°05'38"E. No perennial nala exists in the lease area. Surface runoff water flows to east as the area slope towards south east. Surubali Jhor flows from north to south at about 6 Km east to applied area and Harihar Jhor flows from north to south is at about 3 Km from the area towards southwest. The land use pattern of the lease area is Atta, Mala, Berna, Gochar.

7. The geological reserve as estimated from the lease area is 5.39,750 tonnes and the mineable reserve is 377825 tones. The colluvial material available in the lease area is 3500 cu.m. Quartz in the ML area is excavated by conventional method of opencast mining on single shift basis.

8. The proposed production from the lease area will be 18600 cu.m per annum of quartz anf 17.5 Kg of amethyst from the lease area.

9. As per the satellite imagery of the buffer zone of the project site it has been observed that about 40 % of the land cover is used as Fallow land, 38 % of the land is Crop Land depend upon rain for cultivation, forest cover of the area is about 10% and Open forest land is about 6%.

10. During the study period the concentration of PM_{10} varies from 37.5 to 56.3 μg/m^3 and $PM_{2.5}$ varies from 17.2 to 26.2 μg / m^3. The conc. of SO_2 varies from 5.2 to 10.4 μg / m^3 and NOx conc. varies from 9.1 to 19.2 μg / m^3.
11. The surface water analysis result reveal that the water is suitable for outdoor use for human, cattle drinking and irrigation purpose.
12. From the water quality results it can be inferred that all the parameters analysed are under the prescribed limit specified under IS10500: 2012 for drinking water. The water does not contain any pollutant which would not be hazardous for human, animal or crop health.
13. The soil analysis result shows that the soil is lower to medium fertile and suitable for paddy cultivation.
14. There is no ecological sensitive zones, wild life sanctuary, national park or biosphere reserve located within the buffer zone of the lease area.
15. The mining activity will be carried out up to ultimate depth of 120 mRL and the depth of ground water during pre-monsoon period is 116 mRL and during post monsoon it is upt 110 mRL. The mining activity will not intersect the ground water table so the impact of the mining activity on the ground water table will not be there.
16. Plantation of about 4000 saplings has been done along the boundary i.e. safety zone and 500 saplings will be planted on the amethyst bearing zone during the first 2 years of plan period. Further there will be plantation over an area of 5.920 Ha with 10000 saplings in the backfilled area during conceptual period.
17. The Public hearing for Bankia Quartz and gemstone mines was carried out at Bankia village of Subarnapur District on 02.09.2021 as per the provisions of EIA Notification, 2006 of MoEF&CC, Govt. of India. The proponent assured for implementation of the Social developmental programme as per the schedule. The local people will be allowed for Kendu leave collection during morning hours from upper and lower part of lease area.
18. The cost allocated for Environment management plan will be ` 30 lakhs as Capital expenditure and ` 10 lakhs per annum as recurring expenditure. The cost allocated for social developmental activities will be ` 28.05 lakhs.
19. The Environment consultant **M/s Kalyani Laboratories Pvt. Ltd., Plot No. 78/944, Millenium City, Pahala, Bhubaneswar – 752101** along with the proponent has made a presentation on the proposal before the Committee on 04.02.2022.
20. The SEAC in its meeting held on dated 04.02.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent. The project 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)	Layout showing areas garland drain, mining area, green belt, settling pond along with dimensions,	Detail layout showing the garland drain, mining area green belt setting pond along with dimensions as **Annexure 1**.
ii)	Dump management with detail calculations of waste utilization /	Dump management with details calculation of waste generation, utilization and chemical

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	inventory / sale including its chemical characteristics be submitted.	characterization of waste is given in **Annexure 2**.
iii)	Water management with rain water harvesting along with calculation be submitted.	Surface water management along with rain water harvesting plan attached as **Annexure 3.**
iv)	Silt management including procedure for de-silting of surrounding water body(s) / Agricultural land be submitted.	SOP for silt management with periodical de-siltation as a contingency plan /measure and zero discharge from the lease area is given as **Annexure 4.**
v)	Proposed "Zero discharge" mechanism shall be submitted.	Details of surface runoff, rain water harvesting and Zero discharge from the lease area is given in **Annexure 3**
vi)	Details of waste management along with the composition of waste is to be provided.	Details of waste management along with the composition of waste is given in **Annexure 1**
vii)	Details of Storage and usage management of explosives to be used in mines.	No explosive will be stored within the lease area. The blasting will be carried out by explosive license holders. An undertaking in this regard is attached **Annexure 5**.
viii)	Mitigation measure with SOP as a " Risk Management" for slope failure and fly Rock be submitted during drilling and blasting.	SOP for Risk Management for slope failure and fly rock is given **Annexure 6**.
ix)	Details of Rain Water Harvesting Pond (s) with no and design vis- a - vis the adequacy of the same be submitted.	Details of rain water harvesting pond is given as **Annexure 3**.

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

ITEM NO. 22

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR KRUSHNACHANDRAPUR CLUSTER HILLOCKS STONE MINES DEPOSIT OVER AN AREA 17.18 HA OR 42.44 AC (KRUSHNACHANDRAPUR STONE QUARRY NO. 1 - 2.258 HA OR 5.58 AC, KRUSHNACHANDRAPUR STONE QUARRY NO. 2 OVER 5.63 AC. OR 2.278 HA, KRUSHNACHANDRAPUR STONE QUARRY NO. 3 OVER 5.63 AC. OR 2.278 HA, KRUSHNACHANDRAPUR STONE QUARRY NO. 4 OVER 5.63 AC. OR 2.278 HA, KRUSHNACHANDRAPUR STONE QUARRY NO. 5 OVER 5.63 AC. OR 2.278 HA, KRUSHNACHANDRAPUR STONE QUARRY NO 6 OVER 5.50 AC. OR 2.225 HA, KRUSHNACHANDRAPUR STONE QUARRY NO. 7 OVER 8.85 AC. OR 3.581 HA) LOCATED IN VILLAGE KRUSHNACHANDRAPUR UNDER BANARPAL TAHSIL OF ANUGUL DISTRICT OF SRI PRANAB KUMAR SARANGI, SRI BASANT KUMAR PARIDA & SRI SIVA SANKAR MOHAPATRA – EC

1. Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) carried out for Krushnachandrapur Stone cluster over an area of 17.18 Ha located at Village Krushnachandrapur in Banarapal Tahasil of Angul District, Odisha. The cluster consists of 7 individual mining leases located within the cluster area of 500m. The land use pattern of the mining cluster area comes under the non-forest waste land (Abada Ajogya Anabadi), bearing Khata no.1, Plot no.42/1,42/2,42/3,42/4,42/5,42/6,42/7 Kissam: Pahad. Cluster

(Krushnachandrapur hillock) is featured in the Survey of India Toposheet No. 73 H/1 and bounded between the latitudes 20°51'52.12"N to 20°52'06.51"N and longitudes 85°00'14.14"E to 85°00'37.24"E.

2. The EIA/ EMP study has been carried out based on the ToR approved by SEIAA, Odisha by M/s Kalyani Laboratories Private Limited Bhubaneswar. Kalyani Laboratories private limited (MoEF & CC and NABL accredited Lab) has gathered required baseline data for pre monsoon season (1st Dec 2020 to 28th Feb 2021) and accordingly prepared the EIA / EMP report.

3. The production from the entire cluster will be 203192 cu.m per annum, The name and address of the successful bidders for the individual 7 mines within the cluster is given in table below:

Name of the quarry	**Successful bidders from 2020-21 to 2024-25**
Krushnachaandrapur stone quarry No.1	M/s Jagannath Corporation Projects Pvt. Ltd.C/o- Pranab Narayan Sarangi, Plot No.397, Sarangi Bhawan (Gr. Floor), Garage Chawk, Lewis Road, Old town, Odisha, Bhubaneswar, 751002
Krushnachaandrapur stone quarry No.3	
Krushnachaandrapur stone quarry No.4	
Krushnachaandrapur stone quarry No.7	
Krushnachaandrapur stone quarry No.2	Basant Ku. Parida, At- Jarasingha, Angul
Krushnachaandrapur stone quarry No.5	M/s Orissa Biodiesel Jatropha Pvt. Ltd. C/o- Siva Sankar Mohapatra, Plot No.397, Sarangi Bhawan(Gr. Floor), Garage Chawk, Lewis Road, Old town, Odisha, Bhubaneswar, 751002
Krushnachaandrapur stone quarry No.6	

4. Krushnachandrapur has comprised mineralised area of Krushnachandrapur hillock over 17.18 Ha. The geological reserve (Probable & Possible) for building stone/road metal has been estimated as 2230687cum over the Cluster. It is evident that demonstrated the mineable reserve (Probable) for building stone/road metal worked out to be 2008507 cum over the Cluster.

5. Method of mining will be opencast semi mechanized. Handling of rock mass will be done both manually and by excavators. Handpicks, spade, chisel, hammer will be used by manual labors for sorting and sizing. Loosening of rock mass will be done by drilling and blasting Based on the demand of building stone/road metal as revealed by the respective lessees, a maximum of 203192cum per annum of building stone/road metal will be extracted per annum from the Cluster area.

6. Annual Production of Building Stone/Road Metal during Plan Period

Year	**Quarry 1**	**Quarry 2**	**Quarry 3**	**Quarry 4**	**Quarry 5**	**Quarry 6**	**Quarry 7**	**Total production (Cluster) in cum**
First	5594	4007	10077	6552	10948	11662	8810	203192 Cum
Second	5594	4007	10077	6552	10948	11662	8810	203192 Cum
Third	5594	4007	10077	6552	10948	11662	8810	203192 Cum
Fourth	5594	4007	10077	6552	10948	11662	8810	203192 Cum
Fifth	5594	4007	10077	6552	10948	11662	8810	203192 Cum
Total	**27972**	**20034**	**50386**	**32760**	**54740**	**58310**	**44051**	**1015960Cum**

7. A total of 225 workers (Skilled-40nos., Semi-skilled-70nos. and Un-skilled-108nos & Mines Manager/Mine Permit Manager-7nos) will be employed during mining operation.

8. It is assumed that around 2/3rd of the generated waste will be transported to the crusher site along with valuable building stone/road metal where these will be sorted out. The remaining 1/3rd of the total waste will be separated at the quarry head and will be stacked in the temporary waste dump of respective quarry lease and will be utilised by the lessee for making of mine road and allied infrastructures.
9. The area of mining cluster is located in the Survey of India Toposheet no.-73 H/1 and bounded by Latitude-20°51'52.12"N to20°52'06.51"N and longitudes 85°00'14.14"E to 85°00'37.24"E. The land use pattern of the mining lease area comes under the non-forest waste land (Abada Ajogya Anabadi), bearing Khata no.1, Plot no.42/1,42/2,42/3,42/4,42/5,42/6,42/7 Kissam: Pahad. The M.L. area under reference displays a hilly terrain trending N-S. Highest RL in the area is 220 m above msl in the quarry 2 and quarry 4 and the lowest is 170 above msl in the quarry 1. The buffer zone of the study area is not coming under a hilly terrain. The highest altitude of buffer zone is 660 mRL at Durgapur RF and lowest altitude of 103 mRL
10. There is chance that during monsoon the run-off water may find access to some of the quarries in the Cluster-1.
11. There are no seasonal or perennial nala flows within the lease area. However due to the earlier mining activities there are various mining pits filled with water exists within the lease area. During the rainy season the rain water flows in the hillock through various raincuts and drains water to the existing quarry.
12. 45 KLD of potable water will be required from which 14 KLD of water will be required for drinking & domestic purpose. 21 KLD of water is suggested to be utilized for dust suppression and 10 KLD for plantation purpose. The water requirement by individual lease will be 5 KLD (max). The water will be sourced by tanker by the individual lessee to cater the water requirement. Water will be sourced from ground water and rain water harvesting from the existing quarry.
13. Green belt will be developed over an area of 2.5 ha along the safety zone of the cluster besides individual safety zone of the cluster. Further during the conceptual period 12.88 Ha of the lease area will be reclaimed with plantation.
14. The total cost of the project is ` 400 lakhs and the updated capital cost and recurring cost (per annum) for the environmental facilities for the proposed mining project works out to be ` 38 lakhs and ` 14 lakh / year respectively.
15. The Public Hearing in respect of Environment Clearance for Krushnachandrapur Cluster Hillock Stone mines Deposit over an area of 17.18 Ha at/ Mouza- Krushnachandrapur, Tahasil-Banarpal of Angul District, Odisha was conducted on Dtd. 07.12.2021 at 10 A.M. at Hatapadia, Maratha in the district of Angul, Odisha. The public hearing was conducted as per the guidelines of EIA Notification 14th September 2006 and subsequent ammendments. The major issues raised during public hearing are control of vibration during blasting, peripheral developmental activities to be monitored by the village committee, health and education facility etc. In compliance to the public hearing a time bound action plan has been prepared and a total of Rs 14.20 Lakhs is proposed for social developmental expenditure by the cluster.

16. The Environment consultant **M/s Kalyani Laboratories Pvt. Ltd. Plot No. 78/944, Millennium City, Pahala, Bhubaneswar – 752101** along with the proponent has made a presentation on the proposal before the Committee on 11.02.2022.

17. The SEAC in its meeting held on dated 11.02.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent. The project 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)	Permanent sprinklers system/ tanker-based water sprinklers should be strictly practiced to avoid dust emission.	2 nos of water tankers of 10 KLD capacity will be utilized for water sprinkling in the haul road. An undertaking for use of regular water sprinkling by the lessee is submitted **Annexure 1**. This undertaking is forwarded by Tahasildar, Banarpal.
ii)	Post monitoring plan of waste.	Detail waste management plan for the cluster is attached as **Annexure 2.**
iii)	Water quality monitoring should be done along with biological monitoring.	The post EC monitoring plan will include water quality monitoring with biological parameters. The revised post EC monitoring plan attached as **Annexure 3.**
iv)	Silt management including SOP for silt management for de-silting of surrounding water body(s) / Agricultural land be submitted.	SOP for silt management with periodical de-siltation as a contingency plan /measure and zero discharge from the lease area is given as **Annexure 4.**
v)	Proposed "Zero discharge" mechanism be submitted.	Details of surface runoff, rain water harvesting and Zero discharge from the lease area is given in **Annexure 5.**
vi)	Details of waste management along with the composition of waste is to be provided.	Details of waste management along with the composition of waste is given in **Annexure 6.**
vii)	All the 07 individual quarry lessee to create a common forum and contribute funds to it for grading, Compaction and maintenance of common haulage road, Provision of piped water with semi-circle Sprinkler system for suppression of dust on the common haulage road, and provision of thick, multilayer and a continuous green belt around the cluster excluding the entry and exit gate for prevention of pollution and noise going out of the mines.	A common forum for all the 7 individual lessee will be created under the chairmanship of Tahsildar, Banarpal. A detail budget for grading. Compaction and maintenance of common haulage road, provision of piped water with semi-circle sprinkler system for suppression of dust on the common haulage road, and provision of thick, multilayer and a continuous green belt around the cluster excluding the entry and exit gate for prevention of pollution and noise going out of the mines is given in **Annexure 7.**

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Kalyani Laboratories (Pvt) Ltd. Pahala, Bhubaneswar on behalf of the**

proponent, the SEAC approved the EIA/EMP report in cluster approach and recommended the following:

a) The SEIAA, Odisha may consider to grant Environmental Clearance to individual lease (for **07 nos**. quarry leases) in cluster with specific conditions as per **Annexure-J** after receipt of individual applications from the lessee in cluster along with following documents.

   i) Filled in form-I of individual lease

   ii) Prefeasibility report of individual lease

   iii) EMP of individual lease.

   iv) Approved Mining Plan of individual lease

   v) DLC status of the lease area from concerned DFO as certified by the concerned Tahasildar.

   vi) An Undertaking by the lessee not to use wagon drilling blasting to be submitted. Accordingly, specific condition to be stipulated in EC of individual lease.

   vii) No storage and usage of blasting materials/explosives inside the lease area without license/permission/authorization from competent Authority as per Indian Explosives Rules, 1983 shall be ensured by the lessee. An undertaking to this effect shall be submitted by the lessee. Accordingly, specific condition to be stipulated in EC of individual lease.

   viii) An undertaking to obtain NOC from CGWA and permission from WR department, Govt. Of Odisha for use of ground water. Accordingly, specific condition to be stipulated in EC of individual lease.

ITEM NO. 23

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. ASTROZ CREATORS PVT. LTD. FOR CONSTRUCTION OF B+G+4 RESIDENTIAL BUILDING AND G+1 STOREYED COMMERCIAL BUILDING PROJECT OVER PLOT NO. 612, 557 AND KHATA NO.277/94 AT MOUZA - SATYABHAMAPUR UNDER TAHASIL - BALIANTA OF DISTRICT - KHORDA WITH TOTAL BUIT UP AREA- 22250.248 SQ.MT OF SRI SANJAY KUMAR MOHARANA (DIRECTOR) - EC

1. The proposal is for Environmental Clearance of M/s. Astroz Creators Pvt. Ltd. for construction of B+G+4 residential building and G+1 storeyed commercial building project over plot No. 612, 557 and khata No.277/94 at Mouza - Satyabhamapur under Tahasil - Balianta of district - Khorda with total buit up area- 22250.248 sq.mt.
2. The project falls under category “B” or activity 8 (a)-Building and Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. M/s Astroz Creators Pvt. Ltd. Proposes to Construct B+G+4 with 135 nos. residential flats. The project will be come up in Plot No.- 612, 557, 556, Khata No. 277/94 of Mouza – Satyabhampur, Tahasil- Balianta, Bhubaneswar, District-Khordha on a land measuring 8052.12Sqm(1.989acres) with total built-up area 22,250.248 Sq.mt.
4. The Project Site is a part of the Survey of India Toposheet No. 73H/15&73H/16. The site falls between Latitude 20°14'43.07"N to 20°14'47.00"N and Longitude 85°53'31.3"E to

85°53'31.3"E. The site is surrounded by 9.14 m wide road on the southern side connecting to main PWD road. The site is plain without any vegetation or trees. Nearest Highway is NH-203 which is 3.5 km & AH-45 is 6.5 Km away from project site. The Bhubaneswar Railway Station is 5.6 km from the project site. Biju Patnaik International Airport is 7.8 km from project site.

5. The site is coming under development plan of Bhubaneswar Development Authority. The project comprises of the following construction: consist of two residential blocks, one commercial building, club house, courtyard and parking. The number of dwelling units proposed is 135 numbers.
6. The total plot area is 8052.12Sqm (1.989acres) with total built-up area 22,250.248 Sq.mt and ground coverage is 48 % of plot area.
7. The Building Details Of The Project:

S. NO.	DESCRIPTION	AREA (SQ M)
A.	Plot Area	8052.12
B.	Proposed Ground Coverage (@48 % of net plot area)	3777.24
C.	Proposed FAR (@2.074 of plot area Residential(Basement)	16112.92
D.	Non FAR Area (Strain case, Lift, Balcony, Ramp, Accessory Use)	6137.08
E.	Built-up Area (C+D)	22,250.248
F.	Green Area (@ 10 % of plot area)	805
G.	Open parking area (@ 6.08 % of plot area)	490.607
H	Open Area & Drive way (@37.06% of plot area)	2984
I.	Height	14.75 m
J.	No of Dwelling Units	135

8. Water requirement: The total water requirement for the project will be approx.92 KLD, out of which domestic water demand is 85 KLD. The fresh water requirement will be 58 KLD. Fresh water will be extracted from ground water through borewell.
9. Waste water details: The project will generate approx. 73 KLD (sewage load) of wastewater. The wastewater will be treated in an onsite STP of 85 KLD capacity. The treated water will be reused for flushing (27 KLD), horticulture (2.4 KLD) & other purpose etc.
10. Power requirement: The power supply will be supplied by CESCO, Bhubaneswar. The requirement load for the project will be approx. 550 kW. Power Backup: Total 2 nos. of DG sets total 250 kVA (2*250 kVA) capacity for power back up.
11. Rain Water Harvesting: Rain Water will be harvested and recharge through 23 recharge pits from the plot area.
12. Parking Requirement: Total parking area required 6007.458 m^2 Sq.mt./450ECS and basement parking area will be provided.
13. Firefighting Installations: Firefighting system will be installed as per recommendation of the Firefighting Officer, Odisha and as per the guideline of NBC (part-4).

14. Green Belt Development: Out of the total area, green belt will be developed over an area of 805 sq.m (10% of the plot area) and 100 tress will be planted.
15. Solid Waste Management: Total amount of solid waste generated of the project will be 331 kg/day which will be disposed through BMC.
16. The total population of project after proposed will be 625 persons.
17. The estimated project cost is ` 46 Crores.
18. The project proponent along with the consultant **M/s P & M Solution Pvt. Ltd., Noida** made a detailed presentation on the proposal before the committee on 02.08.2021..
19. The SEAC in its meeting held on dated 02.08.2021 decided to take decision on the proposal after receipt of the certain information / documents from the proponent followed by visit of sub-committee of SEAC to the proposed site. The project 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)	Parking in terms of ECS (both 2 wheelers & 4 wheelers) for occupants, floating population & visitors with locations needs to be submitted in tabular form.	Parking calculation and parking plan is enclosed as **Annexure I.**
ii)	Fire clearance from the appropriate authority need to be obtained and submitted.	Fire application is enclosed as **Annexure II**.
iii)	Plan for solar power with exact calculations to be submitted.	Solar Panels will be used in Street Lights, Lifts, Common area, pump room (approx. 83 no's of solar panels will be used to save around 5% of the total power requirement). Details regarding the calculation for the same is enclosed as **Annexure III**.
iv)	Details of DG sets to be installed at the suitable places after due consideration of pre-dominant wind direction to avoid air pollution from entering the dwelling house of the colony. An undertaking to this effect along with DG set location w.r.t wind direction, stack height with layout / installation drawing of the stack / exhaust pipe be submitted.	Predominant direction is in SW. DG set has been installed in NE direction to avoid any Air Pollution due to DG set. Undertaking is enclosed as **Annexure IV** and layout/installation drawing is enclosed as **Annexure V**.
v)	Detailed water balance for Zero Liquid Discharge. Details of drainage management with layout. Mode of discharge of excess treated water.	Treatment of sewage will be carried out through an onsite STP OF 85 KLD. Treated sewage (65 KLD) will be re-used for toilet flushing (27 KLD), Green belt (2.7 KLD), DG cooling (3.6

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		KLD), Fire Fighting (1 KLD) and surplus treated water (31 KLD) will be used in nearby construction site, road washing and rest will discharged to sewer. Details regarding the water balance is enclosed as Annexure V. Drainage layout is enclosed as Annexure VI. Permission regarding the discharge of treated sewage to sewer is enclosed as **Annexure VII**.
vi)	DFO certificate about distance of the project boundary from the boundary of Nandankanan and Chandaka- Dampada Sanctuary and its Eco-Sensitive Zone.	DFO letter is enclosed as **Annexure VIII**.
vii)	2 Entry and exit gates to be made for decongestion.	Layout plan showing 2 entry and exist gates is enclosed as **Annexure IX.**
viii)	Permission from Water Resources Deptt. for usage of ground water.	CGWB NOC is enclosed as **Annexure X**.
ix)	Status of NOC from BMC for sewage disposal.	This area is not coming under the jurisdiction of BMC. Undertaking for the same is enclosed as **Annexure XI**.
x)	Greenbelt area proposed to be 10%, which need to be increased to 20% (excluding landscape area) and accordingly, revised plan and built-up area calculation indicating the 20% greenbelt area to be submitted.	Green Belt area is approx. 1610.424 sq.m which is approx. 20 % of the total plot area. Revised layout plan with area statement is enclosed as **Annexure XII**.

20. The proposed site was visited by the sub-Committee of SEAC on 15.12.2021 and the observations of the Sub-Committee are as follows:

    a) The Sub-Committee of SEAC, Odisha verified the Environment setting and special features at site as per the project proponent claim through EDS and ADS submitted to Secretary SEAC, Odisha.

    b) The Components of the Checklist for Building Projects was verified on ground.

    c) The plot of Land does not fall under the Jurisdiction of BDA nor BMC. It is Governed by the Sarapancha of Satyabhamapur Gram Panchayat.

    d) The PP had planned for disposal treated waste water in 500mtr away Cuttack-Puri Canal branch on the right side of the project or 20 feet wide village drain at 200 feet distance on the left side of the Project. Although many nearby projects are disposing waste water to the above Canal, the sub-committee insisted on disposal to the village drain under the culvert only. Accordingly, the PP need to get the NOC from appropriate authority, construct open drain with cover or underground hume pipe alongside the public road for disposal of waste

water to the village drain. The PP have agreed to provide Water Treatment Plant, Waste Water Treatment Plant, STP and basic treatment of Storm Water in an Oil Water separate pit in the Project layout.

e) Similarly, the provision of adequate size of septic tank and soak-pit to be provided by the PP in the layout and later on connect it to the sewerage line whenever it is constructed by Government.

f) A full-grown tree is existing on the rear side of the Project boundary which should not be felled and rather to be maintained.

g) Since all other major Environmental norms are being adhered to by the PP, the Sub-Committee suggests the SEAC for recommendation of EC with above Conditions to the Project

Considering the information furnished and the presentation made by the consultant, **M/s P & M Solution Pvt. Ltd., Noida** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 7 years with stipulated conditions as per **Annexure – K** in addition to the following specific conditions**.**

i) "Khatian" (Patta after Mutation) for the entire land from the appropriate Revenue Authority with 'Kisam' as Gharabari shall be obtained along with ownership before which construction work shall not start. **The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.**

ii) The PP had planned for disposal treated waste water in 500mtr away Cuttack-Puri Canal branch on the right side of the project or 20 feet wide village drain at 200 feet distance on the left side of the Project. Although many nearby projects are disposing waste water to the above Canal, the sub-committee of SEAC recommended for disposal to the village drain under the culvert only. Accordingly, the PP shall obtain the NOC from appropriate authority for construction of open drain with cover or underground hume pipe alongside the public road for disposal of waste water to the village drain.

iii) The proponent shall use solar energy of 5% as proposed.

iv) To reduce discharge of treated water to open drain, the proponent shall use more water for increased number of trees proposed to be planted in the green belt area & shall also utilize this treated water for car washing, floor washing to minimize the surplus discharge to drain.

v) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.

vi) A full-grown tree is existing on the rear side of the Project boundary which should not be felled and rather to be maintained.

vii) **All the compliances submitted/ committed by PP (s) shall be strictly adhered to by them.**

ITEM NO. 24

PROPOSAL FOR DEMERGER OF EXISTING ENVIRONMENTAL CLEARANCE FROM M/S DALMIA CEMENT (BHARAT) LTD.UNIT: KAPILAS CEMENT MANUFACTURING WORKS TO KAPILAS CEMENT MANUFACTURING WORKS (A UNIT OF DALMIA CEMENT (BHARAT) LTD.) AND DALMIA DSP (A UNIT OF DALMIA CEMENT (BHARAT) LTD.) AT EXISTING SITE AT VILL- BISWALI, TAHASIL – TANGI, DIST – CUTTACK, ODISHA OF SRI RAMAWTAR SHARMA – MODIFIED EC

1. This proposal is for Demerger of existing Environmental Clearance from M/S Dalmia Cement (Bharat) Ltd.Unit: Kapilas Cement Manufacturing Works to Kapilas Cement Manufacturing Works (A unit of Dalmia Cement (Bharat) Ltd.) and Dalmia DSP (A unit of Dalmia Cement (Bharat) Ltd.) at existing site at Vill- Biswali, Tahasil – Tangi, Dist – Cuttack, Odisha.
2. As per EIA Notification dated 14th Sep, 2006, as amended from time to time; this project falls under Category “B”, Project or Activity 3 (b) Cement Plants.
3. Dalmia Cement (Bharat) Limited operates Rajgangpur Works, in Sundargarh District as mother Clinkerisation unit and Kapilas Cement Manufacturing Works in Cuttack District as only grinding unit. The KCMW is operating with a capcity of 4.2 MTPA (1.7 MTPA + 2.5 MTPA). In addition, a Solar PV Captive Power Plant is in operation with capacity 2.5 MW and now newly another 17.5 MW Solar PV Captive Power Plant has been installed in the same premises which will be in operation very soon.
4. Earlier in 2018, it was proposed and planned for the expansion of existing KCMW from 1.7 MTPA to 4.2 MTPA, accordingly, the EC, CTE & CTO have been issued stipulated with all requisite conditions but later the management proposed to separate the expansion unit (capacity 2.5 MTPA) from the parent unit by demerging present Environmental Clearance.
5. The Unit predominantly manufactures Cement under the reputed brand of ‘Konark’ & ‘Dalmia’ Catering to the coastal, northern and southern belts of Odisha.
6. Dalmia DSP, Cuttack unit is a branch unit of Dalmia DSP’s Rajgangpur, which is the parent unit. Both have the same IEM Acknowledgement Number. Both units are sharing same GST number.
7. Dalmia DSP, Cuttack unit is an extension of Dalmia DSP’s parent unit at Rajgangpur. So, it is proposed to be declared as separate identity, not the expansion of Kapilas Cement Manufacturing Works, unit of Dalmia Cement (Bharat) Limited, Cuttack. Previously, it was recorded as expansion of Kapilas Cement Manufacturing Works, unit of Dalmia Cement (Bharat) Ltd., Cuttack. Presently, PP propose to separate both units.
8. After approval for EC demerger, PP will approach Odisha State Pollution Control Board (OSPCB) for necessary correction in CTO for the Dalmia DSP Unit, Cuttack.
9. Though the new mill is a expansion of the existing one, now proposed to demerge and separate the new mill of 2.5 MTPA as every equipment, silo, packers, etc… are newly installed/built and will be operated separately and the finished product will be packed separately. It is to be therefore treated as a new and separate entity for better raw material sourcing, business tracking, accountability and profitability at all the time with the mother clinkerisation unit at Rajgangpur.

10. Present statutory Clearances has been obtained are transfer of EC from Kapilas Cement Manufacturing Works (A unit of OCL India Ltd.) to Dalmia Cement (Bharat) Ltd., Unit: Kapilas Cement Manufacturing Works for the proposal of cement grinding unit, expansion from 1.70 MTPA to 4.20 MTPA, at village- Biswali, Tehsil- Tangi, Dist.- Cuttack, Odisha vide letter no. 895/SEIAA Dt. 12.03.2021

11. **Location and connectivity** - The site is located at Village Biswali, PO. Barunia, District. Cuttack, Odisha. The site falls under the Survey of India Toposheet No. 73 H/14, 73 L/2. The Latitude and Longitude of the proposed site is 20^0 37' 26" N and 85^0 59' 45" E. The Plant is located at about 10 km from NH-16 (Formerly NH-5). The nearest major town is Cuttack at a distance of 35 KMs from the plant site. The major Railway station is at Cuttack, which is 35 km from the existing Plant site. KCMW is having its own private Railway siding within the Plant premises which is connected to Byree railway station located at a distance of about 4 km from the plant site. The existing Railway siding is sufficient to take care of the proposed expanded plant's requirement. The nearest airport is at Bhubaneswar, which is about 65 kms from the Plant site. No National Park, Wildlife Sanctuary, Biosphere Reserve, Tiger / Elephant Reserve, Wildlife Corridor etc… fall within a 10 km radius of the plant site.

12. **Raw Materials obtained** - Raw materials required for the proposed project are Clinker, Slag, Gypsum & Fly ash. Clinker will be sourced from its parent Unit at Rajgangpur, Odisha and from other Group Units as & when required, BF Granulated slag will be sourced from nearby Steel Plants in Kalinga Nagar, Dhenkanal-Angul Belt, Vizag, etc., Gypsum from nearby Chemical/Fertilizer Plants in Odisha, West Bengal, Andhra Pradesh and from imported sources and Fly ash from nearby Thermal Power Plants in the State of Odisha. Transportation of raw material and finished product (cement) would be done by road and rail.

13. **Water requirement** -The total water requirement of the proposed project is 680 KLD. 400 KLD for existing 1.7 MTPA & additional 280 KLD for 2.5 MTPA. The Unit is already a Water positive Unit with proper Rainwater harvesting facilities.

14. **Power requirement** - The total power requirement for the proposed project will be 25 MVA which will be sourced from Open Access Power from own CPP at Rajgangpur/ Existing Captive Solar PV Power Plant of 2.5 MW capacity & Proposed Solar PV Power Plant/ OPTCL/ CESU.

15. **Rain Water Harvesting**: There is the proposal for construction of rain water harvesting pits 7 nos. within the premises of the project area to collect about 50% of the rainfall received from the area and used for ground water recharge.

16. **Green Belt Development** - The total project area is 348 acres. About 115 acre (33%) of the total project area has already been covered under green belt & plantation.

17. The total nos. of employees will be 827(733+94).

18. The project proponent along with the consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar,** made a detailed presentation on the proposal on 17.12.2021.

19. The SEAC in its meeting held on dated 17.12.2021 decided to take decision on the proposal after receipt of the certain information / documents from the proponent. The project proponent has furnished the compliance and the SEAC verified the same as follows:

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
i)	Board resolution of the holding company (to be demerged) and the proposed two to be demerged companies for the purpose.	Extract of Board Resolution Indicating separate unit. As per **Annexure-1**.
ii)	Status on this w.r.t to factory & labour licences (s) from Directorate of Factories & Boilers and Labour Commission rate respectively.	On receipt of Environmental Clearance (EC) followed by CTO, we will make applications to the Labour Commissioner and Directorate of Factories & Boilers for license/occupational certificate as per law.
iii)	"Kisam" of the part of the land is said to be Agriculture, "Gharabari & Private" which need to have been converted to "Industrial use" as of today. A clarification on this be submitted.	Private Land 152.262 Ac. Out of which 127.262 Ac is converted to industrial Kissam and only 25 Ac. Of land is under the process of conversion to industrial Kissam. The letter is submitted to the Tahsildar, Darpan & Tahsildar, Tangi-Choudwar. As per **Annexure-2**. Forest Land of 11.970 Ac., has obtained stage-II clearance. As per **Annexure-3**. The total Govt. land is 183.77 Ac. As per the Notification the demised land will be utilized for the purpose for which it is alienated and not directed/ transferred in favour of any individual or others for any purpose. As per **Annexure-4**.
iv)	A legal affidavit from an Executive Magistrate need to be submitted by the applicant / PP seeking demerger of EC that they shall own any legal liability as & if necessary as per applicable laws for the purpose including indemnity for ay financial liability arising out of this demerge.	A legal Affidavit from the Executive Magistrate is enclosed as per **Annexure-5**.
v)	Latest EC compliance duly authenticated by Regional office MoEF & CC, Bhubaneswar.	The Environmental Clearance (EC) granted vide letter No. 7482/SEIAA dated 06.11.2019 and subsequently transferred to DCBL vide letter No. 895/SEIAA dated 12.03.2021. We have been uploading half-yearly EC compliance in the MoEF portal regularly. Such authentication is usually required for compliance in case of expansion/modification of the plant and our application is for neither of both.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
vi)	All the physical features, use of natural resources, raw materials, inputs & outputs, environmental parameters etc. be shown in a tabular (matrix) form for stand-alone proposed to be demerged units, common services, total corresponding existing and basis of apportionment be submitted.	Details of all physical features, use of natural resources, raw materials, input & output, environmental parameter etc, is shown in a tabular (matrix) for stand-alone cement mill proposed to be demerged, common services have been attached as per **Annexure-6**.
vii)	Copy of Agreement (legal instrument) for sharing the common services including responsibility of operation & maintenance of the some with accountability & compliance to Regulatory Authority (S) be submitted.	A mutual Agreement in the shape of an Affidavit between demerged units for sharing the common services including the responsibility of operation & maintenance of the same with accountability & compliance to Regulatory Authority attached as per **Annexure-7**.
viii)	Separate layout with dimensions of the demerged units vis-à-vis the existing original undivided unit be submitted with separate boundary walls and separate entry / exit gates for demerged (proposed) units with separately for employees / visitors & materials movement gate(s).	The detailed layout has been attached as per **Annexure-8**.
ix)	Physical area apartment proposed including manpower looks disproportimate with reference to capacity (s) of the proposed demerged units. Justification for the same be submitted.	Details have been attached as per **Annexure-9**.
x)	Separate demarcation of the proposed demerged units and the common services be shown in the existing layout map of the existing plant and respective boundary wall(s) need to be in place.	Separate demarcation of the proposed demerged units and the common services has been shown in the layout. Once the Environmental Clearance (EC) is granted for the proposed demerge units, the boundary wall be placed with the respective gate within 6 months since it involves civil construction is over, we will submit the copy of the drawing to SEIAA.
xi)	Subject to compliance on (i) to (x) above if the same are found in order, EC (s) for proposed demerged unit may be considered without prejudice	We agree for the same and the same may be put as a specific condition.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	to any order or direction from any court of competent jurisdiction and / or competent authority (s) under applicable laws.	
xii)	On the event of grant of EC(s), if anything is found otherwise at any point of time, the EC so granted shall deem to have withdrawn / revoked with immediately effect besides levy of penalty and or any action as considered deem fit under the applicable laws.	We agree for the same the same may be put as a specific condition.
xiii)	Copies of Environmental Clearance and minutes of meeting of similar type of proposals if any considered by MoEF&CC, Govt. of India.	A similar demerger proposal of JSL has been attached as per **Annexure-10** for ready reference.

20. The SEAC observed that the proponent has not furnished "Copies of Environmental Clearance and minutes of meeting of similar type of proposals if any considered by MoEF&CC, Govt. of India" as pointed out at para 19 (xiii). The copy which the proponent has submitted is nothing but Terms of Reference issued to JSL. Further, the proponent has not furnished detailed CTE and CTO status of the Board for both the proposals for which demerger has been sought for.

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

i) Copies of Environmental Clearance and minutes of meeting of similar type of proposals if any considered by MoEF&CC, Govt. of India

ii) All the physical features, use of natural resources, raw materials, inputs & outputs, environmental parameters etc. be shown in a tabular (matrix) form for stand-alone proposed to be demerged units, common services, total corresponding existing and basis of apportionment be submitted.

iii) CTE and CTO status of the Board and Environmental Clearance status of the existing projects.

iv) Separate layout maps for both the units proposed to be de-merged.

v) Plant and Machinery, Buildings, and any other structure in the proposed independent Boundary of 02 Adjacent units proposed to be de-merged.

Approved

18.03.2022

SECRETARY, SEAC

CHAIRMAN, SEAC

ANNEXURE- A

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S FERRO ALLOYS CORPORATION LTD FOR EXPANSION OF OSTAPAL CHROMITE MINE (ML AREA: 72.843 HA) FOR INCREASE IN PRODUCTION FROM 0.2 MTPA TO 0.240 MTPA CHROMITE ORE (ROM) WITH MAXIMUM EXCAVATION OF 0.579 MILLION CUM PER ANNUM AND BENEFICIATED CHROME ORE OF 0.1 MTPA AT VILLAGE- GURUJANGA, TAHASIL SUKINDA, DISTRICT JAJPUR OF SRI SANDEEP KITTANA ACHARYA – EC.

A. SPECIFIC CONDITIONS:

1) Waste should be dumped on the earmarked sites within the mining lease area and no waste should be dumped outside the lease area.

2) The Project Proponent shall start the planation and cover at least 50% of the proposed area under plantation in the next 5 years. The density of the plantation should not be less than 2500 saplings/Ha. The species to be selected for the plantation should be in consultation with local forest department or any other expert agency engaged for the same. The Project Proponent shall keep the record of saplings planted, survival rate, area covered under plantation, location etc. In addition to this gap filling needs to be done to as and when require for maintaining the density of plantation. The PP shall submit the drone images of area before and after the plantation. PP shall carry out pilot study for phytoremediation of hexavalent chromium through IMMT, CSIR, Bhubaneswar. The budget earmarked for the plantation shall be kept in separate bank account and audited annually. PP shall submit the detail such as photographs (before & after with gee-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation and outcome of the pilot study etc. to the Regional Office of MoEF&CC, Bhubaneswar and SEIAA, Odisha before 1st July of every year for the activities carried out during previous year.

3) Approval/permission of CGWA/SGWA shall be obtained before drawing ground water for the project activities. State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) till the project proponent obtains such permission.

4) The amount proposed under **Corporate Environment Responsibility (CER)** head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and details of implementation of CER activities along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, photographs & Geo-location of the infrastructures/facilities developed, etc. to the Regional Office of MoEF&CC, Bhubaneswar and SEIAA, Odisha before 1st July of every year for the activities carried out during previous year.

5) The amount (except occupational health) proposed under Environmental Management Plan (EMP) head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and detailed environment monitoring report along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, sampling reports, photographs& Geo-location of the infrastructures/facilities developed, details of persons engaged in Environment Management Cell etc. to the Regional Office of

MoEF&CC, Bhubaneswar and SEIAA, Odisha before 1st July of every year for the activities carried out during previous year.

6) The amount proposed under Occupational Health plan head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and detailed environment monitoring report along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, sampling reports, photographs& Geo-location of the infrastructures/facilities developed, details of persons engaged in Environment Management Cell etc. to the Regional Office of MoEF&CC, Bhubaneswar and SEIAA, Odisha before 1st July of every year for the activities carried out during previous year.

7) The Project Proponent shall set up an Environmental Management Cell comprises of persons having qualification and experience in the field of environment along with supporting staff. The details of the same needs to be submitted to the SEIAA, Odisha within 3 months of the grant of EC.

8) The project proponent shall give an undertaking by way of affidavit to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2ndAugust 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. before grant of ToR/ EC. The undertaking inter-alia include commitment of the PP not to repeat any such violation in future.

9) In case of violation of above undertaking, the ToR/Environmental Clearance shall be liable to be terminated forthwith.

10) The Environmental Clearance will not be operational till such time the Project Proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.

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

12) The Project Proponent shall implement the short term and long term measures proposed to be taken in order to get rid from the adversity of Cr (VI) contamination, needs to be implemented and status report of the same along with benefit occurred needs to be submitted to Regional Office of MoEF&CC, Bhubaneswar and SEIAA, Odisha annually.

13) The Project Proponent shall keep a record of each blasting viz. location, number of holes, delay assigned of each hole, explosive quantity of each hole, blasting pattern etc.

B. STANDARD CONDITIONS: (AS MINISTRY'S O.M NO 22-34/2018-IA.III DATED 8.01.2019 &16.01.2020)

Statutory compliance

14) This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme

Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.

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

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

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

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

19) Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board/Committee.

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

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

22) The Project Proponent shall follow the mitigation measures provided in MoEF&CC's Office Memorandum No. Z-11013/57/2014-1A. II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".

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

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

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

26) The Project Authorities should widely advertise about the grant of this EC letter by

printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the

27) State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEF&CC Regional Office for compliance and record.

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

Air quality monitoring and preservation

29) The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM 10, PM2.5, N02, CO and S02 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/l, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.

30) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEFCC/ Central Pollution Control Board.

Water quality monitoring and preservation

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

32) Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-

mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six- monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

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

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

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

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

37) Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by

concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.

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

Noise and vibration monitoring and prevention

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

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

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

Mining plan

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

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

44) The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-a-vis backfilling in the mine lease area and corresponding afforestation to be raised in

the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office.

Land reclamation

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

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

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

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

49) The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC.

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

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

52) The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine

lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.

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

54) Slope study by an expert of repute of water dumps to be done and submitted within six months from the date of issue of EC to SEAC / SEIAA

Transportation

55) No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load.

56) The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.

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

58) Haulage road shall be developed and maintained perennially and perpetually by the proponent in construction with the concerned authority of the Govt. and to this effect, the proponent shall submit an undertaking in form of a legal affidavit

59) Traffic density study if not done by domain expert, then the expert to be ratified / authenticated by domain expert and submitted within a month time.

Green Belt

60) The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution

emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.

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

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

63) The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-1 species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.

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

Human Health Issues

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

66) The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and

educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.

67) The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).

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

69) The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.

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

71) The proponent shall implement the mitigative measures as suggested in the Study Report on effect of chromite mines to nearest human habitation.

72) Occupational health check-up shall be done by occupational health expert periodically for employees as well as nearby villagers.

Corporate Environment Responsibility (CER)

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

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

Miscellaneous

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

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

77) The project proponent shall install solar panel inside the mine to generate 5KW of power required for Administrative Building as proposed.

78) The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEF&CC & its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.

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

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

81) In pursuant to Ministry's O.M No 22-34/2018-IA.III dated 16.01.2020 to comply with the direction made by Hon'ble Supreme Court on 8.01.2020 in W.P. (Civil) No 114/2014 in the matter Common Cause vs Union of India, the mining lease holder shall after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to other mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

82) The SEIAA, Odisha or any other competent authority may alter/modify the above

conditions or stipulate any further condition in the interest of environment protection.

83) Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

84) The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974. the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court and any other Court of Law relating to the subject matter.

85) The site will be visited by the sub-Committee of SEAC after six months to review the progress of recommendations of SEAC on specific conditions.

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

ANNEXURE - B

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S RAMCO CEMENTS LTD., FOR EXPANSION OF EXISTING STAND-ALONE CEMENT GRINDING UNIT CAPACITY FROM 0.90 MTPA TO 1.80 MTPA (LINE-II) BY INSTALLATION OF AN ADDITIONAL CEMENT MILL OF CAPACITY 165 TPH BY M/S THE RAMCO CEMENTS LIMITED (TRCL) LOCATED AT/PO: HARIDASPUR, PS/TEHSIL: DHARMASALA, DIST: JAJPUR, ODISHA OF M. SRINIVASAN (PRESIDENT) – EC.

A. SPECIFIC CONDITIONS:

1. Transportation of raw material and finished products (both for existing and proposed expansion) shall be primarily through railways i.e. transportation by railways should not be less than 90% of the traffic (inward and outward put together) as proposed by the proponent as per MoEF&CC, Govt. of India OM No. J-13012/12/2013-IA-II(I), dated 24th Dec, 2013. The proponent shall construct the additional railway corridor after obtaining permission from the railway authority if the existing railway corridor will not adequate for the proposed expansion. In such case, the proponent shall go for production activity for proposed expansion after completion / operation of the additional railway corridor.
2. The environmental clearance is granted for cement grinding unit of following production capacity.

Product	Capacity in MTPA		
	Existing	Proposed	Total
Portland Slag Cement (PSC)	0.9	0.9	1.80
Portland Pozzolona Cement (PPC)			
Ordinary Portland Cement (OPC)			

3. The project proponent should install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to the SEIAA, Odisha and Regional Office, MoEF&CC, Bhubaneswar.
4. The Standards issued by the MoEF&CC, Govt. of India vide G.S.R. No. 612 (E) dated 25th August, 2014 and subsequent amendment dated 9th May, 2016 and 10th May, 2016 regarding cement plants with respect to particulate matter, SO_2 and NOx shall be followed.
5. Continuous stack monitoring facilities to monitor gaseous emissions from the process stacks shall be provided. Limit of PM shall be controlled to meet prescribed standards by installing adequate air pollution control.
6. The National Ambient Air Quality Standards issued by the MoEF&CC, Govt. of India vide G.S.R. No. 826(E) dated 16th November. 2009 shall be followed.
7. Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines/Code of Practice issued by the CPCB in this regard shall be followed.
8. All the raw materials shall be stored under covered shed (as proposed) to control fugitive emission.
9. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of conveyors/rail mode of transport wherever feasible. The company shall have separate

truck parking area. Vehicular emissions shall be regularly monitored. The proponent shall complete the Rail Head and the cement plant simultaneously so that the village road will not be used for raw material and finished product transportation.

10. All the treated wastewater shall be recycled and reused in the process and/or for dust suppression and green belt development and other plant related activities etc. No wastewater shall be discharged outside the factory premises and 'zero' discharge shall be adopted.
11. Efforts shall be made to make use of harvested rain water.
12. All the bag filter dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices shall be recycled and reused in the process and used for cement manufacturing. Spent oil and batteries shall be sold to authorized recyclers / re-processors only.
13. Green belt over 33% (33 acres as proposed) of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area and along road sides etc. by planting native and broad leaved species in consultation with local DFO, local community and as per the CPCB guidelines.
14. The project proponent shall provide solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly. The proponent shall use Solar / Renewable energy of 5 % of the expected actual power requirement.
15. The project proponent shall provide LED lights in their offices and residential areas.
16. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants shall be implemented.
17. In addition to the above provision of ESC, the proponent shall prepare a detailed CSR Plan for the next 5 years including annual physical and financial targets for the project, which includes village-wise, sector-wise (Health, Education, Sanitation, Skill Development and infrastructure etc.) activities in consultation with the local communities and administration. The plan so prepared shall be based on SMART (Specific, Measurable, Achievable, Relevant and Time bound) concept. The expenditure should be aimed at sustainable development and direct free distribution and temporary relief should not be included. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to the SEIAA, Odisha and Regional Office, MoEF&CC, Bhubaneswar. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.
18. A Risk Assessment Study and Disaster Preparedness and Management Plan along with the mitigation measures shall be prepared with a focus of Disaster Prevention and a copy submitted to the SEIAA, Odisha, Regional Office, MoEF&CC, Bhubaneswar, SPCB and CPCB within 3 months of issue of environment clearance letter.
19. To educate the workers, all the work places where dust may cause a hazard shall be clearly indicated as a dust exposure area through the use of display signs which identifies the hazard and the associated health effects.
20. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

21. Permission from WR Department, Government of Odisha shall also be obtained for ground water extraction of 100 cu.m/ day besides NOC from CGWA.

22. All the compliances submitted/ committed by PP (s) shall be strictly adhered to by them.

B. GENERAL CONDITIONS:

1. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board, Odisha.

2. No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Odisha.

3. At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM_{10}, $PM_{2.5}$, SO_2 and NOx are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to the SEIAA, Odisha, Regional Office, MoEF&CC, Bhubaneswar and the SPCB/CPCB once in six months.

4. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).

5. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

6. The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.

7. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.

8. Requisite funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the SEIAA, Odisha as well as the State Pollution Control Board, Odisha. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office, MoEF&CC, Bhubaneswar. The funds so provided shall not be diverted for any other purpose.

9. A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the local NGO. if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.

10. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF&CC at Bhubaneswar, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM_{10}, SO_2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

11. The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard

copies as well as by e-mail) to the Regional Office of MOEF&CC, Bhubaneswar, the respective Zonal Office of CPCB and the SPCB. The Regional Office of MoEF&CC at Bhubaneswar / CPCB / SPCB shall monitor the stipulated conditions.

12. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the Regional Office of the MOEF&CC at Bhubaneswar by e-mail.

13. The Project Proponent shall inform the public that the project has been accorded environmental clearance by the SEIAA, Odisha and copy of the clearance letter is available with the SPCB and may also be available in the Website of the SEIAA, Odisha. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office, MoEF&CC, Bhubaneswar as well as State Pollution Control Board, Odisha.

14. Project authorities shall inform the SEIAA, Odisha as well as the Regional Office, MoEF&CC, Bhubaneswar, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

15. The SEIAA, Odisha may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

16. The SEIAA, Odisha reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

17. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention *&* Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous & Other Wastes (Management And Transboundary Movement) Rules, 2016 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.

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

Environmental Scientist, SEAC

ANNEXURE - C

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S URBANYX INFRA PVT. LTD FOR PROPOSED CONSTRUCTION OF B+S+11 STORIED RESIDENTIAL APARTMENT OVER AN AREA OF 1.22AC. OR 4940.074 SQM. LOCATED AT DUMDUMA, BHUBANESWAR, DIST – KHORDA WITH TOTAL BUILT UP AREA- 22987.34SQM OF SRI JAVED AKHTAR (DIRECTOR) - EC.

PART A - SPECIFIC CONDITIONS:

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc. as per National Building Code including protection measures from lightening etc.
3. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
4. The project proponent shall ensure that the guidelines for building and construction projects issued vide this Ministry's OM NO.19-2/2013-IA.III dated 9th June, 2015, are followed to ensure sustainable environmental management.
5. The proponent shall obtain prior clearance from the Standing Committee of the National Board for Wild Life if the project will be located within any Eco-Sensitive Zone of Wild Life Sanctuary.

TOPOGRAPHY AND NATURAL DRAINAGE

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

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

9. As proposed, fresh water requirement from ground water shall not exceed 60 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring

that there is no impact on other users.

11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of 05 nos. shall be provided.
17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.
18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

SOLID WASTE MANAGEMENT

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

generated from project shall be obtained.

SEWAGE TREATMENT PLANT

24. Sewage shall be treated in STP of capacity 100 KLD. The treated effluent from STP shall be reused for flushing, horticulture & Filter backwash.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and “Nala” before commencement of any activity at the project site.

ENERGY

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

34. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 5% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher. Follow super ECBC requirement of ECBC 2017 and provide compliance report.

35. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

36. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

37. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.

AIR QUALITY AND NOISE

38. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

39. AII construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.

40. **Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.**

41. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

42. For indoor air quality the ventilation provisions as per National Building Code of India shall be provided.

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

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m^2 of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 988.01sq.m. (20.50% of the plot area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

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

TRANSPORT

46. A comprehensive mobility plan, as per Ministry of Urban Development best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.

    - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
    - Traffic calming measures
    - Proper design of entry and exit points.
    - Parking norms as per local regulation

47. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project.

48. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

49. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

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

ENVIRONMENT MANAGEMENT PLAN

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

OTHERS

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

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

PART B – GENERAL CONDITIONS

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

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

11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO_2, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

12. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC, Govt. of India by E-mail.

Environmental Scientist, SEAC

ANNEXURE - D

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S. KHUSI REALCON PVT. LTD FOR PROPOSED RESIDENTIAL APARTMENT TOWER-1 (B+S+23), TOWER-2 (B+S+22), TOWER-3 (B+S+22) & TOWER-4 (B+S+22) LOCATED AT MOUZA-PAHALA, TAHASIL-BHUBANESWAR, DIST- KHORDHA OF MR. PRADEEP THACKER (DIRECTOR) - EC.

PART A - SPECIFIC CONDITIONS:

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc. as per National Building Code including protection measures from lightening etc.
3. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
4. The project proponent shall ensure that the guidelines for building and construction projects issued vide this Ministry's OM NO.19-2/2013-IA.III dated 9th June, 2015, are followed to ensure sustainable environmental management.
5. The proponent shall obtain prior clearance from the Standing Committee of the National Board for Wild Life if the project will be located within any Eco-Sensitive Zone of Wild Life Sanctuary.

TOPOGRAPHY AND NATURAL DRAINAGE

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

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

9. As proposed, fresh water requirement from ground water shall not exceed 257 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring

that there is no impact on other users.

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

SOLID WASTE MANAGEMENT

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

generated from project shall be obtained.

SEWAGE TREATMENT PLANT

24. Sewage shall be treated in STP of capacity 350 KLD. The treated effluent from STP shall be reused for flushing, horticulture & Filter backwash.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and “Nala” before commencement of any activity at the project site.

ENERGY

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

34. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 5% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher. Follow super ECBC requirement of ECBC 2017 and provide compliance report.

35. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

36. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

37. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.

AIR QUALITY AND NOISE

38. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

39. AII construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.

40. **Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.**

41. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

42. For indoor air quality the ventilation provisions as per National Building Code of India shall be provided.

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

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m^2 of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 3421.6 sqm (21.99 % of the plot area) of plot area shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

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

TRANSPORT

46. A comprehensive mobility plan, as per Ministry of Urban Development best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
    - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
    - Traffic calming measures
    - Proper design of entry and exit points.
    - Parking norms as per local regulation

47. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project.

48. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

49. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

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

ENVIRONMENT MANAGEMENT PLAN

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

OTHERS

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

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

PART B – GENERAL CONDITIONS

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

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

11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO_2, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

12. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC, Govt. of India by E-mail.

Environmental Scientist, SEAC

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR RARBAHAL GRAPHITE MINES OVER AN MINING LEASE AREA OF 20.675 HA LOCATED AT VILLAGE- RARBAHAL, TAHASIL- BELPARA, DIST- BALANGIR OF SRI ANTARYAMI MISHRA – EC

A. Specific conditions

1. This Environmental Clearance is accorded only for the non-forest area of 20.675 ha.
2. The maximum production from the mine at any given time shall not exceed 0.0138 Million Tonnes/Annum.
3. Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court of Odisha and any other Court of Law, if any, as may be applicable to this project.
4. This Environmental Clearance is subject to obtaining requisite NBWL Clearance from the Standing Committee of National Board for Wildlife, if any, applicable for this Mining project.
5. No mining activities will be allowed in forest area, if any, for which the Forest Clearance is not available.
6. The applicant (Project proponent) will take all necessary measures for prevention, control and mitigation of Air Pollution, Water Pollution, Noise Pollution and Land Pollution including solid waste management as mentioned by him in Form-I, Final EIA reports and Environment Management Plan (EMP) in compliance with the prescribed statutory norms and standards.
7. The applicant will comply to the points, concerns and issues raised by the people during public hearing on 22.01.2020 in accordance with the commitments made by him thereon.
8. The project proponent shall obtain Consent to Establish and Consent to Operate from the State Pollution Control Board, Odisha and effectively implement all the conditions stipulated therein.
9. The Proponent should install online Ambient Air Quality Monitoring System and there should be system for display of digital AAQ data within 03 months at least at three locations as per wind direction. Online provisions of pH and turbidity meters at discharge points of STP and ETP and also at water storage ponds in the mining area may be made. Project Proponent should display the result digitally in front of the main Gate of the mine site.
10. The monitoring of $PM_{2.5}$ in the vehicle emission shall be conducted to improve the mine environment and report submitted to the Regional Office of the MoEF&CC, Govt. of India.
11. Project proponent shall run an awareness campaign on sanitation for women and utilization of Sanitary Napkin and also to distribute the Sanitary Napkin/pads to the women and provide the training for proper disposal.
12. Implementation of Occupational hazard Plan on risk-based approach and in line with DGMS requirements addressing the hazards from heavy metal such as lead (Pb) found in tailings.

13. Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented.
14. The prevention measure for bums, malaria and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities.

B. <u>Standard conditions</u>

1. A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the SEIAA, Odisha 5 years in advance of final mine closure for approval.
2. No change in mining technology and scope of working should be made without prior approval of the SEIAA, Odisha.
3. No change in the calendar plan including excavation, quantum of mineral and waste should be made.
4. The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water) for the project.
5. Mining shall be carried out as per the provisions outlined in mining plan approved by Indian Bureau of Mines (IBM) as well as by abiding to the guidelines of Directorate General Mines Safety (DGMS).
6. The lands which are not owned by Proponent, mining will be carried out only after obtaining the consents from all the concerned land owners as per the provisions of the Mineral Concession Rules, 1960 and MMDR Act, 1957.
7. Digital processing of the entire lease area using remote sensing technique shall be carried out regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment, Forest and Climate Change its Regional Office.
8. The critical parameters as per the Notification 2009 such as PM_{10} / $PM_{2.5}$, NOx, and SOx etc. in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
9. Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM_{10} and $PM_{2.5}$ such as haul road, loading and unloading point and transfer points. Fugitive dust emissions from all the sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard. Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board.

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

11. Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table.

12. Regular monitoring of water quality upstream and downstream of water bodies shall be carried out and record of monitoring data should be maintained and submitted to the SEIAA, Odisha, Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.

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

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

15. Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers. The material transfer points should invariably be provided with Bag filters and or dry fogging system. In case of Belt- conveyors facilities the system should be fully covered to avoid air borne dust; Use of effective sprinkler system to suppress fugitive dust on haul roads and other transport roads shall be ensured.

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

Environmental Scientist, SEAC

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

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

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

20. The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. The maximum height of the dumps shall not exceed 60m and width 20 m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the SEIAA, Odisha and Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.

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

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

23. Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area", if any, applicable to the project.

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

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

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

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

28. Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.

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

30. A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.

31. The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the SEIAA, Odisha and MoEF&CC, Govt. of India and its Regional Office.

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

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

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

Environmental Scientist, SEAC

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

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

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

38. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

39. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

40. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Odisha and any other Court of Law relating to the subject matter.

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

Environmental Scientist, SEAC

ANNEXURE- F

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

Stipulated Conditions:

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

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

10. Vehicles hired for transportation of sand from the site should be in good condition and should have pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.

11. The vehicles shall not be overloaded and shall be covered with Tarpaulin. The Tahasildar may collect an appropriate road maintenance levy from the lessee as part of the lease conditions on the basis of quantum of sand transported, and utilize the proceeds of the levy for proper maintenance of the extraction paths and roads to prevent their degradation on account of plying of sand trucks.

12. The project proponent shall take all precautionary measures against causing damage to flora and fauna of the locality. The PP shall plant and nurse to full establishment a minimum of 50 number of saplings of native tree species along the approach roads, river banks and in community areas in consultation with the Gram Panchayat.

13. Water spray should be made on the road/extraction paths to control dust emission during transportation of sand.

14. The Project Proponent shall undertake phased restoration, reclamation and rehabilitation of land affected by mining and completes this work before abandonment of mine.

15. Environmental Management Plan (EMP) shall be implemented by PP to ensure compliance with the environmental conditions specified above. The year wise funds earmarked for environmental protection measures shall be kept in separate account and shall be spent according to the plan proposed. Year wise progress of implementation of EMP shall be reported to the SEIAA, Odisha and OSPCB along with the compliance report.

16. The proponent shall take necessary measures to ensure that there is no adverse impact of the mining operations on the human habitation if any, existing nearby.

17. It shall be mandatory for the project management to submit quarterly compliance reports on the status of implementation of the above stipulated environmental safeguards to the SEIAA, Odisha / SPCB, Odisha/ Regional Office of the MoEF&CC, Bhubaneswar, in hard and soft copies on 1stday of January, April, July, October of each calendar year, failing which EC is liable to be revoked.

Environmental Scientist, SEAC

18. River Bank stabilization shall be made through stone patching. Plantation of adequate number native species on river banks and both sides of haulage roads shall be made.

19. Since NH200, Kuccha Road and temple are only at a distance of 800 mtr, 570 mtr and 500 mtr respectively, all traffic safety measures shall be taken to avoid any kind of accidents.

20. Bio - toilet provision shall be made.

21. As raised during public Hearing and committed by PP, Loknathpur Sasan village road shall not be used for transportation of sand.

22. Stone patching on river bank with plantation in-between and the ramp construction shall be done in consultation with and advice of concerned W.R.Deptt, Government of Odisha.

23. Necessary sprinkling on Haulage Road and Avenue plantation shall be done.

24. At the end of mine closure, the proponent shall immediately remove all the sheds put up in the quarry and all the equipment in the area before closure of the quarry.

25. The conditions stipulated in the environmental clearance will be closely monitored on the ground by the lease granting authority, i.e. the Tahasildar, who shall ensure compliance of the stipulated conditions and take corrective measures promptly in case of any non- compliance and also ensure that the project proponent submits quarterly compliance reports.

26. The concerned Regional Office of the MoEF&CC/ SPCB, Odisha shall periodically monitor compliance of the stipulated conditions as applicable for this project. The project authorities should extend full cooperation to the MoEF&CC officer(s)/SPCB officer(s) by furnishing the requisite data / information / monitoring reports.

27. A copy of the clearance letter shall be sent by the proponent to concerned Gram Panchayat /Panchayat Samiti /Zilla Parisad /Municipal Corporation / Urban Local Body as the case may be.

28. Project proponent shall obtain Consent to Operate from the OSPCB and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the State Pollution Control Board.

29. The SEIAA, Odisha may revoke or suspend this EC, if implementation of any of the above conditions is not satisfactory. The SEIAA, Odisha reserves the right to alter /modify the above conditions or stipulate any further condition in the interest of environment protection.

30. The Project Proponent (lease holder) shall inform the SEIAA of any change in ownership of the mining lease. In case, there is any change in ownership or mining lease is transferred, then mining operation can be carried out only after transfer of EC as per provisions of the para 11 of EIA Notification, 2006, as amended from time to time.

Environmental Scientist, SEAC

31. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this environment clearance besides attracting penal provisions in the Environment (Protection) Act, 1986.

32. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act,1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court and any other Court of Law relating to the subject matter.

33. This Environmental Clearance (EC) is subject to orders/judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.

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

Environmental Scientist, SEAC

Annexure - G

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

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

ANNEXURE -H

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR DECORATIVE STONE / GRANITE MINES

A. Specific conditions

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

B. Standard conditions

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

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

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

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

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

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

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

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

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

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

parameters and allows only species adopted to that micro climate.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Environmental Scientist, SEAC

ANNEXURE -I

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S MANIKESWARI MINERALS FOR BANKIA QUARTZ AND GEMSTONE MINES OVER AN AREA OF 21.092 HA AT VILLAGE BANKIA, TEHSIL- BIRAMAHARAJPUR, DIST-SONEPUR, ODISHA OF SRI RAJENDER KUMAR AGARWAL (PROPRIETOR) – EC

A. Specific conditions

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

B. Standard conditions

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

Ministry of Environment, Forest and Climate Change its Regional Office and SEIAA, Odisha.

9. Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM_{10} and $PM_{2.5}$ such as haul road, loading and unloading point and transfer points. Fugitive dust emissions from all the sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard. Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board.

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

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

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

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

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

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

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

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

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

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

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

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

22. As per the Company Act, the CSR cost should be 2 % of average net profit of last three years. Hence CSR expenses should be as per the Company Act/Rule for the Socio Economic Development of the neighborhood Habitats which could be planned and executed by the Project Proponent more systematically based on the 'Need based door to door survey' by established Social Institutes/Workers. The report shall be submitted to the

Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.

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

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

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

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

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

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

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

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

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

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

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

Environmental Scientist, SEAC

ANNEXURE -J

SPECIFIC CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE OF INDIVIDUAL MINING LEASE OF KRUSHNACHANDRAPUR CLUSTER HILLOCKS STONE MINES DEPOSIT OVER AN AREA 17.18 HA OR 42.44 AC LOCATED IN VILLAGE KRUSHNACHANDRAPUR UNDER BANARPAL TAHSIL OF ANUGUL DISTRICT OF SRI PRANAB KUMAR SARANGI, SRI BASANT KUMAR PARIDA & SRI SIVA SANKAR MOHAPATRA – EC.

1. This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court of Odisha, Hon'ble NGT and any other Court of Law, if any, as may be applicable to the quarry lease.
2. The Environmental Clearance is subject to obtaining requisite NBWL Clearance, if any, from the Standing Committee of National Board for Wildlife for Mining project.
3. The lessee shall implement the Pollution Control Measures and safeguards as proposed in the approved EIA/Environment Management Plan (EMP) in the cluster approach.
4. The lessee shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and records maintained; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smokers, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. Recommendations of National Institute for Labour for ensuring good occupational environment for mine workers would also be adopted; All the old age people of the surrounding villages may be provided medical facilities.
5. Transport of minerals shall be done either by dedicated road or it should be ensured that the trucks/dumpers carrying the mineral should not be allowed to pass through the villages. The lessee shall ensure that the road may not be damaged due to transportation of the mineral; and transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and density.
6. The lessee shall obtain NOC from concerned Block Development Officer (BDO) for usage of haulage road/Panchayat Road.
7. The lessee shall ensure safety of human life and livestock from accidents in case village / any habitation is very nearby the mining lease area.
8. The lessee shall ensure the safeguard and wellbeing of villagers and school, regular health monitoring of all residents in the area and the compliance Report shall be submitted to the regional office of the MOEF & CC and SEIAA, Odisha.
9. The lessee/concerned Tahasildar shall follow the detailed procedure for De-reservation of Gochar kissam land if involve in the lease area before going for mining activity.
10. Under no circumstances, the lessee shall use wagon drilling blasting during mining activity.
11. The lessee shall not store and use blasting materials/explosives inside the lease area without obtaining license/permission/authorization from competent Authority as per Indian Explosives Rules, 1983.

Environmental Scientist, SEAC

12. The lessee shall obtain NOC from CGWA and permission from WR department, Govt. Of Odisha for use of ground water.

13. The lessee shall complete the rejuvenation of ponds if any within lease area on priority basis after obtaining Environment Clearance.

14. No mining activities shall be allowed in forest area, if any, for which the Forest Clearance is not available.

15. No change in mining technology and scope of working should be made without prior approval of the SEIAA, Odisha.

16. No change in the calendar plan including excavation, quantum of mineral and waste should be made.

17. Mining shall be carried out as per the provisions outlined in the approved mining plan.

18. Protection of vegetation in the surrounding areas, and proper storage of solid waste, subgrade ore and their use have to be given priority during mining operation.

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

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

21. The soil to be generated during mining activity shall be stacked in the earmarked temporary soil stack and shall be utilized for the plantation purpose to be undertaken around the respective hill/patch and adjacent to haul roads of the same in lease area.

22. The abandoned mine pit shall be converted to rain water storage tank and the rain water stored in pit shall be utilized for plantation as well as dust suppression.

23. Total Plantation shall be carried out within 2-3 years of mining activity and maintenance shall be continued in remaining years. Trees present in mining area shall be uprooted & transplanted in safety zone.

24. All the lease holders in a cluster to join hand through a registered MOU on cluster to cluster basis for laying of permanent pipeline by the side (one side) of the main haulage road with half-moon automatic sprinklers system for suppression of dust during movement of vehicles.

25. All the lease holders in a cluster should join hand for grading of the main haulage road to maintain the gradient facilitating smooth movement of vehicles.

26. The same cluster approach to be taken for development of green belt all around the cluster area baring catch dams for flow of runoff water during rainy season. These activities may be coordinated by the leadership in the cluster leases or RQP for the cluster with help from Revenue Inspector of the area for better results.

Environmental Scientist, SEAC

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

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

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

Environmental Scientist, SEAC

ANNEXURE - K

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S ASTROZ CREATORS PVT. LTD. FOR CONSTRUCTION OF B+G+4 RESIDENTIAL BUILDING AND G+1 STOREYED COMMERCIAL BUILDING PROJECT OVER PLOT NO. 612, 557 AND KHATA NO.277/94 AT MOUZA - SATYABHAMAPUR UNDER TAHASIL - BALIANTA OF DISTRICT - KHORDA WITH TOTAL BUIT UP AREA- 22250.248 SQ.MT OF SRI SANJAY KUMAR MOHARANA (DIRECTOR) - EC.

PART A - SPECIFIC CONDITIONS:

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc. as per National Building Code including protection measures from lightening etc.
3. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
4. The project proponent shall ensure that the guidelines for building and construction projects issued vide this Ministry's OM NO.19-2/2013-IA.III dated 9th June, 2015, are followed to ensure sustainable environmental management.
5. The proponent shall obtain prior clearance from the Standing Committee of the National Board for Wild Life if the project will be located within any Eco-Sensitive Zone of Wild Life Sanctuary.

TOPOGRAPHY AND NATURAL DRAINAGE

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

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

9. As proposed, fresh water requirement from ground water shall not exceed 58 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available.

This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of 23 nos. shall be provided.
17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.
18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

SOLID WASTE MANAGEMENT

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

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

SEWAGE TREATMENT PLANT

24. Sewage shall be treated in STP of capacity 85 KLD. The treated effluent from STP shall be reused for flushing, horticulture & Filter backwash.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

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

34. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 5% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher. Follow super ECBC requirement of ECBC 2017 and provide compliance report.

35. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

36. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

37. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.

AIR QUALITY AND NOISE

38. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

39. AII construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.

40. **Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.**

41. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

42. For indoor air quality the ventilation provisions as per National Building Code of India shall be provided.

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

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m^2 of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 805 sq.m (10% of the plot area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

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

TRANSPORT

46. A comprehensive mobility plan, as per Ministry of Urban Development best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.

    - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
    - Traffic calming measures
    - Proper design of entry and exit points.
    - Parking norms as per local regulation

47. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project.

48. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

49. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

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

ENVIRONMENT MANAGEMENT PLAN

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

OTHERS

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

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

PART B – GENERAL CONDITIONS

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

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

11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO_2, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

12. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC, Govt. of India by E-mail.

Environmental Scientist, SEAC