PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE, ODISHA HELD ON 28TH DECEMBER, 2023

The SEAC met on 28th December, 2023 at 03:30 PM by Virtual mode (VC) through video conferencing in Google Meet under the Chairmanship of Sri Shashi Paul. The following members were present in the meeting.

1.	Sri Shashi Paul	-	Chairman (through VC)
2.	Dr. K. Murugesan	-	Member Secretary
3.	Dr. Chittaranjan Panda	-	Member (through VC)
4.	Prof. (Dr.) H.B. Sahu	-	Member (through VC)
5.	Sri Jayant Das	-	Member (through VC)
6.	Er. Fakir Mohan Panigrahi	-	Member (through VC)
7.	Prof. (Dr.) B.K. Satapathy	-	Member (through VC)
8.	Dr. K.C.S Panigrahi	-	Member (through VC)
9.	Prof. (Dr.) Abanti Sahoo	-	Member (through VC)
10.	Dr. Ashok Kumar Sahu	-	Member (through VC)
11.	Dr. Rabinarayan Patra	-	Member (through VC)
12.	Er. Kumud Ranjan Acharya	-	Member (through VC)

CONSIDERATION OF OLD PROPOSALS (COMPLIANCE RECEIVED):

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

ITEM NO. 01

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR KUDUBADI PAHAD DECORATIVE STONE DEPOSIT OF M/S SGS MINES & INDUSTRIES PVT. LTD OVER AN AREA 38.077 HA. IN VILLAGE KUDUBADI PAHAD UNDER DASPALLA TAHASIL IN NAYAGARH DISTRICT OF SRI GYAN MURTI SHAH - EC

1. This proposal is for Environmental Clearance of Kudubadi Pahad Decorative Stone Deposit of M/s SGS Mines & Industries Pvt. Ltd. over an area 38.077 ha. in village Kudubadi Pahad under Daspalla Tahasil in Nayagarh district of Sri Gyan Murti Shah.
2. **Category:** The proposed project as per EIA Notification dated 14th September 2006 and subsequent amendments, falls under Category "B", Project or Activity 1(a) - Mining of Minerals.
3. The said area is to be granted as mining Lease for mining of decorative stone for thirty years with effect from the execution of the lease deed. The letters of intent for grant of mining lease is issued vide Letter No. 7437/SM-MC2-MC-0066-2021/S & M, Bhubaneswar, Dt.14.09.2021 in favour of M/s. SGS Mines & Industries Pvt. Ltd. Since the execution has not been done, the lease will be expired after a period of 30 years from the date of execution. The mining operation yet not started. This is a new mine. DFO, Nayagarh Division confirms that the said area is not coming under DLC forest.

4. The mining plan of the project has been approved under Mineral Concession Rule, 2016 and Granite Conservation & Development Rule, 1999 vide letter no – MXXII-(c)-8/2021/2047/DM on dated 07.03.2022 by Directorate of Mines, Bhubaneswar, Govt of Odisha.

5. The District Survey Report for additional sources of Morrum, Sand, Granite Stone and Laterite Stone of Nayagarh district has been prepared in accordance with Appendix – x, Para – 7 (iii) (a) of S.O. No – 3611(E) dated 25.07.2018 of MoEF & CC, New Delhi and approved by Collector, Nayagarh on dated 19.02.2020. Since the DSR was approved before the grant order, this mining lease is not shown in the DSR. However prospecting license was granted to M/s SGS Mines & Industries Limited, which was shown in page – 3 of approved DSR.

6. The methodology for the risk assessment has been based on the specific risk assessment guidance issued by the Directorate General of Mine Safety (DGMS), Dhanbad, vide Circular No.13 of 2002, dated 31st December, 2002.

7. Although, 3 proposed Prospecting leases has been identified adjacent to the lease area, but only this deposit has obtained LoI. So, it is being applied as individual lease.

8. DFO, Nayagarh confirms that the applied ML area is not coming under ESZ of Mahanadi Wildlife Sanctuary vide letter no 7600 dated 28th November,2020.

9. **TOR details**: Terms of Reference (TORs) was prescribed by SEIAA, Odisha for this mining project vide Letter No. 5075/SEIAA on dated 02.08.2022.

10. **Public hearing details**: **Public hearing** has been conducted on 28.12.2022 at 11.00 AM at Daspalla Block Office Premises of Nayagarh district in accordance with the procedure of EIA Notification'2006. Issues raised during public hearing are local employment to stop migration of labourers, protection of environment and control of pollution (Air. Water and Noise), flora and fauna shall be conserved, endangered species like Pangolins shall be protected, respiratory diseases due to mining, maintenance of roads, water supply, protection of historical monuments like Bhatagada, Palli Sabha/ Grama Sabha not conducted before public hearing, local schools will be affected due to mining and other activities, traffic congestion due to movement of heavy loaded vehicles and damage of agricultural land due to transportation. Budget allocated for action plan on issues raised during public hearing includes capital cost of Rs. 7.86 lacs and recurring cost of Rs. 3.5 lacs.

11. **Location and connectivity**: The proposed mine is situated over an area of 38.077 ha in village-Kudubadi Pahad under Daspalla Tehsil, in the district of Nayagarh of Odisha State. The area is featured in Survey of India Toposheet No. F45S/11 (73D/11) and is bounded between Latitude: 20° 19' 26.60" to 20° 19' 48.30" N, Longitude: 84° 36' 33.50" to 84° 37' 30.00"E bearing Khata no 1– and Plot no- 1/P, 2/P, 3/P and 4/P. The proposed area is about 25 km from Daspalla. The Applied M.L area could be approach from Daspalla following Daspalla –Nayagarh NH Road, Kudubadi Pahad village at 9.0 km. NH-224. The proposed area is 125 km from the state capital Bhubaneswar. The nearest railway station is Nayagarh which is at 100 km from the Applied M.L. area. Nashagarh RF (0.55 Km, N); Central RF (5.0 Km, E); Chadhiapalli RF (4.0 Km, SE); Bori PF (8.0 Km, W) are present from the proposed site.

12. There are no National parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors; Tiger/Elephant reserves (existing as well as proposed) present within 10 km of the applied mine lease area.

However, Mahanadi Wildlife Sanctuary is located 10.2 Km from the lease. A Joint verification has been carried out by the forest officials on 20.11.2020 regarding compatibility of site.

13. **Reserves and production:** The maximum production ROM will be 18750 cum/annum. As estimated, the total geological reserve is about 93, 63, 773.12 cum, out of which 47, 99, 184 cum have been considered as mineable reserves.

Year	Total volume of Rock	Volume of Marketable Ore (32%)	Volume of Blocks (80%)	Non- Saleable Blocks (20%)	Volume of Waste (68%)
	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)
1st Year	18750.00	6000.00	15000.00	3750.00	12750.00
2nd Year	18750.00	6000.00	15000.00	3750.00	12750.00
3rd Year	18750.00	6000.00	15000.00	3750.00	12750.00
4th Year	18750.00	6000.00	15000.00	3750.00	12750.00
5th Year	18750.00	6000.00	15000.00	3750.00	12750.00
Total	**93750.00**	**30000.00**	**75000.00**	**18750.00**	**63750.00**

14. **Mining method:** Open cast semi-mechanized method will be adopted using machineries such as excavator, line offset, compressor, jack hammer, wire ropes and drill rod etc. Bench parameter will be kept at 3m height and 3m width. Individual bench slope will be 90° whereas overall pit slope will be 45°.

15. **Mine development:** Weathered zone of 0.5 – 1.0m will be scraped from the top. Drilling will be carried out by using jack hammers driven by air compressor. Generally, excavation done in two phases. Both vertical & horizontal holes will be done to expedite wire saw cutter to detach the blocks from the mine face. Splitting of different size of blocks are done by using various cutting tools. Then sizing & shaping of the blocks will be done by using chisels, hammer to give final dimension.

16. **Baseline details:** Base line data has been generated during March'2022 to May'2022 (Summer Season).

    a) AAQ result- The Ambient Air Quality Monitoring reveals that out of eight monitoring stations the minimum and maximum concentrations of 98th percentile PM_{10} were reported to be 46.6μg/m^3 and 88.0μg/m^3 near lease area and at Banigocha respectively. Similarly, 98th percentile $PM_{2.5}$ was found minimum at lease area (28μg/m^3) while the maximum at village Banigochia - 52.0μg/m^3. 98th percentile SO_2 was found to be minimum 5.6μg/m^3 at Baliapalli & maximum16.7 μg/m^3 at Near village Baniogochia. Minimum and maximum concentrations of 98th percentile NO_2 were found to be 10.5 μg/m^3 at Dhura & 24.1 μg/m^3 at near banigochia.

Minimum and maximum concentrations of 98th percentile CO were found to be 0.14 mg/m^3 at lease area & 0.54 mg/m^3 at Near village Banigochia respectively.

b) Ground water quality: pH values varied between 6.98 to 7.74, Dissolved Solids - 49 to 74 mg/l, Turbidity - 2.8 to 4.4 NTU., Total hardness - 89 to 117 mg/l. Chloride – 1.4 to 2.6 mg/l. Calcium – 16.5 to 23.1 mg/l , Magnesium – 4.8 to 6.1 mg/l. It is observed that all the samples are within the permissible limit of IS 10500: 2012.

c) Surface water quality: pH values varied between 6.98 to 7.44, Turbidity – 5.2 to 7.2 NTU, BOD – 1.0 to 2.1 mg/l, Dissolved Solids -64.5 to 81.4 mg/L, Dissolved oxygen - 6.3 to 7.0 mg/L, Iron – 0.08 to 0.16 mg/L,, Chloride – 10.7 to 17.1 mg/l.

d) Noise level study: Noise level varies from 42.5 to 61.0 dB (A) during Day time and 33.1 to 43.5 dB (A) during Night time, which are within the limit of regulatory norms of CPCB. All the noise levels monitored in the study area are well within Ambient Noise Standards for their respective land use category.

e) Soil quality: Texture of soil within the study area is sandy loamy. Soil of the study area is slightly acidic in nature. The bulk density of soil samples varies from 1.32 to 1.6 gm/cm$^{3;}$ porosity varies from 14.5 to 25.1%. Silt varies from 18 to 21 %. Calcium varies from 1.2 to 2.0 mg/kg and Sulphate varies from – 0.18 to 0.42 mg/kg.

17. **Water requirement:** 10 KLD of water will be required, out of which 2 KLD for drinking purpose, 3 KLD for plantation and 5 KLD for dust suppression purpose. It is proposed to tap this quantity of water as per suitability. A sewerage system of septic tank followed by soak pit will be provided for the project area. Drinking water is made available from the tube wells of nearby village Kudubadi.

18. **Waste management:** Waste generated from this mine are weathered, Charnockite & schist. These waste rocks are removed from the quarry in the form of off-standard blocks. A total of 63, 750 Cum waste will be generated during plan period. 40% of the generated waste will be utilized for maintenance and construction of the haul road, approach and existing roads in the surrounding areas periodically. Remaining 38250 m^3 of waste will be temporarily dumped over 0.879 ha with a average height of 5m maintaining appropriate slope. However, the waste generated from the mines are not exactly waste. These are highly used for road construction & stone patching purposes and used by Stone artesian. So, later this waste will be supplied to local requestors. Retaining wall (164m x 1m x 1m) and garland drain (167m x 1m x 1m) will be constructed along with pit and dump. Settling tank will be constructed to arrest the wash-off water. During the cutting of decorative stone block, silt will be generated. Considering silt generation 0.0015 t/Cum, daily 100 Kg of silt will be generated. Since the waste generated from the mine is devoid of topsoil or laterite and the lease area is a completely exposed rock, the surface runoff from the lease area is devoid of silt.

19. **Power/Fuel requirement:** The requirement of power is mainly for mineral transport, office lighting etc. Fuel (Diesel) would be used for operating equipments and heavy machinery and for office; electricity will be consumed from the nearby substation.

20. **Greenbelt**: A green belt is proposed along/inside the lease boundary to form a barrier mainly for dust flow control. About 2.310 ha will be developed for green belt development. Plantation will be carried out in undisturbed area also. During first five-year, safety zone area will be planted. About

- 760 trees (152 trees to be planted per year) will be planted. Species like Amla, Neem, Mango, Gamhari, Kasi, Bahada, Jamun, and Bamboo are proposed to be planted.

Year	Area to be planted (m^2)	No. of Saplings	Type of species to be Planted	Location
1st Year	950	152	Amla, Neem, Mango, Gamhari, Kasi, Bahada, Jamun, and Bamboo	Along the Safety Zone
2nd Year	950	152		
3rd Year	950	152		
4th Year	950	152		
5th Year	950	152		
Total	**4750**	**760**		

21. **Plantation development:** As suggested DFO, Nayagarh, a Scheme for creation of fruit orchards has been prepared under the supervision of Sri B.N. Mohanty, Retd IFS to enrich wildlife habitat and availability of food wildlife animal.450 fruit trees of 9 species as suggested, will be developed in six patches. Financial budget for the scheme of fruit orchard plantation is about Rs. 2, 36, 150.00/- as estimated, which may be spent in association with Forest department. This fruit orchard plantation is over and above, plantation suggested in mining plan, or any other plantation as suggested by the Committee.

22. **Manpower requirement:** The mining activity will generate employment for 20 numbers from which 17nos under skilled worker, unskilled worker & 3nos managerial staffs

23. **Project cost:** Estimated cost of the proposed project is 2.0 crores. CSR activities will be taken up in the nearby villages mainly contributing to education, health, training of women self-help groups and contribution to infrastructure etc., CER budget is allocated as 2.0% of the profit. Cost of Environment Management Plan (EMP) includes capital cost of 10.36 lakhs and recurring cost of 2.50 lakhs.

EMP Particulars	Capital Cost (Rs. in Lakhs)	Recurring Cost (Rs. Lakhs/Annum)
Dust Suppression (mobile haul road water Sprinkling system etc.)	3.0	1.0
OB Dump Management (like retaining wall, garland drains, check dams, settling ponds etc)	1.0	0.25
Water & Waste water Management	1.0	0.25
Plantation/Green belt development	1.0	0.25
Environment Monitoring, Compliance Management, Safety etc.	2.0	0.75
Wildlife Safety measures	2.36	---
Total	**10.36**	**2.50**

CER - Category	Cost in Lakh/Annum
Provide drinking water facility in surrounding villages	0.5
Health Camp	1.0
Repair of Roads	0.5
Temple Development, Sports & Education	0.5
Total	**2.5**

24. **Environment Consultant:** The Environment consultant **M/s Srushti Seva Private Limited, Nagpur**, along with the proponent made a presentation on the proposal before the Committee on 12.04.2023.

25. The SEAC in its meeting held on **12-04-2023** deferred the proposal and recommended the following:

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

i) Submit the revised DSR within a week as the proposed resource is not an identified source in DSR. The proposal will be subjected to submission of revised DSR incorporating the identified source.

ii) Certificate from concerned DFO Nayagarh and DFO Satakosia that there are no reserve forests in the proposed site as the KML file shows dense forest growth in the proposed lease area and also the distance of Tiger reserve from the site.

iii) Detailed note on Wildlife Conservation Plan as the reserve forest is nearby.

iv) Clarification from the concerned DFO about requirement of forest clearance as the lease area is full of dense forest growth.

v) As observed in KML file, there is dense forest growth within 38Ha. of lease area. The Project proponent also has mentioned in presentation that the available mining reserve is limited to only 5 Ha. therefore, the Project Proponent may revise the mining lease area from 38 Ha. to 5Ha. for consideration of Environmental Clearance of the proposal.

vi) List of flora and fauna present in proposed site duly certified by concerned DFO.

vii) The Project Proponent may request to Steel and Mines dept. for trial excavations within lease area for rough estimation of presence of mineable reserve within the lease area, so that lease area can be reduced from 38ha. to 5Ha.

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

i) Involvement of forest land in the lease area as KML file shows dense forest growth in the proposed lease area.

ii) Environmental settings of the lease area.

iii) Mining activity, if any carried out in the lease area.

iv) Road connectivity to the lease area.

v) Any other issues including local issues.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	Submit the revised DSR within a week as the proposed resource is not an identified source in DSR. The proposal will be subjected to submission of revised DSR incorporating the identified source.	DSR of Nayagarh district was approved on 19.02.2020 before the LoI order; However prospecting license was granted to M/s. SGS Mines & Industries Limited, which was shown in last para of page -2 of approved DSR. Letter the PL is converted to ML. SO, it may be considered as identified source. And accordingly LoI is issued by Steel & Mines Dept., Govt of Odisha. And also, Nayagarh has already confirmed the source as identified source and sent the details to SEIAA, Odisha for inclusion in the revised DSR. ADM Nayagarh letter is attached as **Annexure – 1.**	**Annexure – 1 is attached.**
ii)	Certificate from concerned DFO Nayagarh and DFO Satakosia that there are no reserve forests in the proposed site as the KML file shows dense forest growth in the proposed lease area and also the distance of Tiger reserve from the site.	The total area of 38.077 ha is a Govt. waste land of Parvat – 1 kissam and not coming under any DLC. Land Scheduled duly certified by DFO, Nayagarh is attached as **Annexure – 2.** By order, two contiguous wild life sanctuaries, namely Satkosia Geroge Sanctuary & Baisipalli wildlife Sanctuary were notified as Satkosia Tiger Reserve. However Baisipalli Santuary not coming under the core zone of Satkosia TR. DFO, Nayagarh has already confirms the distance of Baisipalli wildlife sanctuary, which is more than 10.0 km from the lease area. The Notification on declaration of Tiger Reserve by MoEF & CC is attached as **Annexure – 3.** However, as per S.O. 2163 (E) on 09.05.2022, General condition shall not applicable to Minor mineral projects.	**Annexure – 2 and Annexure – 3** Is attached.
iii)	Detailed note on Wildlife Conservation Plan as the reserve forest is nearby.	In terms of Wildlife Conservation Plan, to comply DFO, Nayagarh Division, a scheme for creation of 6 nos., of fruit orchards has been prepared with estimated cost of about Rs. 2.36 lakhs, which may be spent in association with Forest department. The said Scheme is attached as **Annexure – 4.**	Complied
iv)	Clarification from the concerned DFO about requirement of forest clearance as the lease area is full of dense forest growth.	DFO, Nayagarh already confirms that; the lease area is a non forest land, So no Forest clearance is required. Ref. **Annexure – 2.**	Complied.
v)	As observed in KML file, there is dense forest growth within 38Ha. of	Since the exploration work has been done within 5 ha out of 38.077 ha, DFO,	-

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	lease area. The Project proponent also has mentioned in presentation that the available mining reserve is limited to only 5 Ha. therefore, the Project Proponent may revise the mining lease area from 38 Ha. to 5Ha. for consideration of Environmental Clearance of the proposal.	Nayagarh Division allowed to start the work restricted within the 5 ha. After entire exploration, further permit may be required. The mining plan has been prepared based on the already area over 5.0 ha and for the balance area, proposal for exploration is also given in the mining plan. Before submission of next review of Mining plan for approval as per the prevailing statute. Again, the KML file shows the image taken in the month of July in the Rainy season, resulting greenery in the entire area.	
vi)	List of flora and fauna present in proposed site duly certified by concerned DFO.	Authenticated list of Flora & Fauna is attached as **Annexure – 5.**	Complied and as **Annexure – 5 is attached.**
vii)	The Project Proponent may request to Steel and Mines dept. for trial excavations within lease area for rough estimation of presence of mineable reserve within the lease area, so that lease area can be reduced from 38ha. to 5Ha.	During the prospecting license period 5.0 ha area explored and PL report submitted for grant of mining lease over 38.077 ha. LOI obtained for grant of 38.077 ha of ML area. After execution of mining lease, mining operation will start. While mine will be in operation entire area will be explored and during submission of next mining plan for further 5 years of mining operation entire area exploration detail with available resources will be provided.	-

27. The SEAC in its meeting held on **17-08-2023** decided to take decision on the proposal after a site visit of the Sub-Committee of SEAC.

28. The proposed site was visited by the sub-committee of SEAC on 04.12.2023. Following are the observations of the sub-committee:

    a) The Project site is located about 40 km from Daspala.

    b) The Kudubudi hill was seen about a kilometre away as there was no regular road to approach. The hill and its surroundings are filled with trees like jungle.

    c) The layout was explained by the Consultant and representative of PP. The mining activity will start from the foot hill of opposite side of the hill we saw.

    d) The site has no approach road from the mine site till the revenue road which is at a distance of 600 meter.

    e) There is no habitation nearby and the Brutanga dam site is far from the site crossing two hills and in the reverse direction of flow of water. The catchment area will also be far.

    f) Accordingly, the PP and Consultant were asked to submit documents with regard to above as a part of KML file and also showing the coordinates of mining site, which they showed there.

g) The documents submitted are attached below herewith along with NOC for EC for mining over lease area.

h) From the above it could be seen that mining could be allowed in the area presently explored based on a valid mining plan. In case of change in mining plan and change in production level, they need to apply for EC amendment again.

i) Although it is not forest-land as informed, there are lot of trees which may have to be cut while making the approach road of 600 mt joining the existing road. Thus, required permission for approach road and trees cutting needs to be taken and procedure followed before commencement of mining.

j) All other points and conditions related to be followed.

Considering the information furnished and the presentation made by the consultant, **M/s Srushti Seva Private Limited, Nagpur,** along with the project proponent, the SEAC recommended for grant of Environmental Clearance upto lease period with stipulated conditions as per **Annexure – A and following additional conditions;**

i) Haulage road shall be developed and maintained perennially and perpetually by the proponent in consultation with the concerned authority of the Govt.

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

iii) The project proponent shall undertake re-grassing of the area or any other area which may have been disturbed due to their mining activities.

iv) The site has no approach road from the mine site till the revenue road which is at a distance of 600 meter.There are lot of trees which may have to be cut while making the approach road of 600 meter joining the existing road. Thus, required permission for approach road and trees cutting needs to be taken and procedure followed before commencement of mining.

ITEM NO. 02

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S ASSOTECH SUN GROWTH ABODE LLP "AVENUE 17TH, ASSOTECH WORLD" FOR DEVELOPMENT OF AFFORDABLE HOUSING UNITS (S+5) STORIED UNDER MODEL 1 OF ODISHA HOUSING FOR ALL POLICY FOR URBAN AREAS, 2022 TOWARDS COMPENSATORY FAR OVER PLOT NO. 493, 502, 518, 590, 591 & OTHERS OF OVER AN BUILT UP AREA 51,664.00 SQM MOUZA-JAYPUR, PS-BALIANTA, TEHSIL-BHUBANESWAR, DIST-KHORDHA OF SRI SASHANK SEKHAR ROUT - EC

1. This proposal is for Environmental Clearance of M/s Assotech Sun Growth Abode LLP "Avenue 17th, Assotech World" for Development of Affordable Housing units (S+5) Storied under Model 1 of Odisha Housing for all policy for Urban Areas, 2022 towards compensatory FAR over Plot No. 493, 502, 518, 590, 591 & others of over an built up area 51,664.00 sqm Mouza-Jaypur, Ps-Balianta, Tehsil-Bhubaneswar, Dist-Khordha of Sri Sashank Sekhar Rout.
2. **Category:** As per EIA Notification,2006 and its subsequent amendments, the proposed project falls under Category B in Schedule in item 8(a): Building & Construction Projects.
3. BMC has provisionally approved the building plan vide letter no. 25968, dated 26.05.2023.

4. Drainage permission from BMC has been obtained vide letter no. 31297, dated 03.07.2023.
5. Ground Water permission from CGWA vide NOC no. CGWA/NOC/INF/ORIG/2023/18681, dated 09.06.2023.
6. Height Clearance from AAI has been obtained vide NOC no. BHUB/EAST/B/072422/685880, dated 26.08.2022.
7. NOC from Public Health Division for Water & Sewerage connection has been obtained vide letter no. 6031, dated 31.05.2023.
8. **Location and connectivity**: The proposed site is located at Mouza-Jaypur, PS-Balianta, Tehsil-Bhubaneswar, Dist-Khordha, Odisha. The Geographical co-ordinate of the project site is: Latitude –20^0 19' 39.07" to 20^0 19' 46.13" N & Longitude - 85° 53' 29.48" to 85° 53' 41.15" E. The project site is well connected with National Highway NH-16 at a distance of approx. 2.4 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.
9. The site is coming under Bhubaneswar Municipal Corporation (BMC).
10. The total plot area is 25157.00 sq.mt. with total built-up area 51664.0 sq.mt.
11. The Building Area Details of the Project in tabulated form

Particular	Proposed	Permissible
Project Name	Assotech Sun Growth Abode LLP "Avenue 17th, Assotech World	
Total Plot Area	25,157.00 sqm	--
Plot gifted to BMC	3,844.00 sqm	--
Net Plot Area	**21,313.00 sqm**	
Ground Coverage	10,736.00 sqm	--
FAR Area	42,354.50 sqm	--
Total Built up Area	**51,664.00 sqm**	--
Maximum Height	19.20m	--
Road Area	8,065.10sqm	--
Stilt Parking Area	9,309.60 sqm	**4235.45sqm**
Total Parking Area	**9,309.60 sqm**	
Green Belt Area	4,345.00 sqm (20.4 %)	4262.6sqm (20 %)
Maximum No. of Floor	S+5	--
Power Requirement	1668.0 KVA	--
Solar	83.0 KVA	
No. of DG sets	1x500 KVA	--
Fresh Water requirement	373.5 KLD	--
Sewage Treatment Plant	STP Capacity - 500 KLD	--
Estimated Population-Residential, . Commercial, Floating/visitors	4440 nos.	--

12. **Water requirement**: Fresh make up of 373.5 m^3/day will be required for the project which will be sourced from Ground Water.

Sl. No.	Description	Total Population	Per Capita Consumption (ltr/day)		Water Requirement (KLD)		
					Domestic	Flushing	Total
i)	Residential	3850 nos.	Fresh (90)	Flushing (45)	346.5	173.25	519.75
ii)	Floating	390 nos.	Fresh (5)	Flushing (10)	1.95	3.9	5.85
iii)	Maintenance Staff	200 nos.	Fresh (25)	Flushing (20)	5.0	4.0	9.0
iv)	Club House	--	--	--	5.0	--	5.0
v)	Commercial	--	--	--	5.0	--	5.0
vi)	Filter Backwash	--	--	--	10.0	--	10.0
				TOTAL	**373.45≈373.5**	**181.1**	**554.6**

13. **Wastewater generation and management:** It is expected that the project will generate 479.9 KLD of wastewater which will be treated in STP. The wastewater will be treated in the STP of capacity of 500 KLD.

14. **Power requirement**: Total Power requirement of the proposed building is 1668.0 KVA, Source is TPCODL, 1x500 KVA DG Sets is provided. Total 83.0 KVA Solar Power Generation which is 5.0% of total power required in project.

15. **Rain Water Harvesting**: Total 566.83 cum Rain Water is harvested through 9nos. of recharge pits.

16. **Parking Requirement**: Total parking area provided is 9,309.60 Sq.mt. and total 333 nos. of ECS and location of parking area is Stilt.

Parking Area Provided			
Stilt Parking Area			9309.6 sqm
Total Parking	--	--	**9309.6 sqm**
Equivalent Car Space Provided			
	Area(sqm)	**Area/ECS**	
Stilt Parking Area	9309.6	28	333 ECS
Total Parking Provided			**333 ECS**

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

18. **Green Belt Development**: Greenbelt is developed over an area of 4,345.00 sqm which is 20.4% of the total plot area. Total 267 nos. of plants to be planted and 3 tier plantations.

19. **Solid Waste Management**: Solid waste generated and its management.

Solid waste Generation

S. No.	Category	Counts (heads)	Waste generated (kg/day)
i)	Residents	3850 @ 0.45 kg/day	1732.5

S. No.	Category	Counts (heads)	Waste generated (kg/day)
ii)	Floating Population	590 @ 0.15 kg/day	88.5
iii)	STP Sludge		85.0
TOTAL SOLID WASTE GENERATED			**1906.0 kg/day**

20. The estimated project cost is 97.5 Crores and cost for EMP is 0.97 Crores.

21. **Environment Consultant**: The Environment consultant **M/s Centre for Envotech & Management Consultancy Pvt. Ltd, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee on 18.10.2023.

22. The SEAC in its meeting held on **18-10-2023** recommended the following:

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

i) Copy of Permission obtained from the concerned authority for drainage connection & discharge of storm water and treated water from STP.

ii) Documents/credentials in support of drainage discharge into the Prachi Dhara/Prachi River.

iii) Copy of Structural Stability study report.

iv) Copy of Soil quality, soil stability and soil erosion study report before and after the construction.

v) Revisit the water balance to reduce the quantity of wastewater generation as the quantity of treated waste water discharge is very high i.e. 336.1 KLD.

vi) Copy of land documents along with permission obtained from the landowners (General Power of Attorney or Sale deed) for construction of drainage network over the respective plots.

vii) Details of Reduced Level of Ground water and Bottom Reduced level of Rainwater harvesting pit.

viii) Copy of traffic study report vetted by an Institute of Repute.

ix) Clarify the discrepancy between proposed greenbelt percentage and documents submitted regarding the greenbelt.

x) Document in support of access to Plot no-595 which is a Govt. land situated inside the proposed area and clarify the fate of the said Plot No. 595 (Govt. land).

xi) Documents in support of relaxation for construction of 6m wide road in the By-Laws from the BMC.

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

i) Environmental settings of the project site.

ii) Verify if the site is a flood prone area.

iii) Construction activity if any started at the site.

iv) Road connectivity to the project site.

v) Drainage network at the site.

vi) Discharge point for discharge of treated water and distance of the discharge point from the project site.

vii) Any other issues including local issues.

23. The proposed site was visited by the sub-committee of SEAC on **01.11.2023**. Following are the observations of the sub-committee.

a) The Project site is located near Bhubaneswar-Cuttack Main Road. The PP informed that they have to develop the existing revenue road connecting from site to Avenue -7 from 13 ft to about 50 ft and drain to pass side of the road to connect to Prachi Dhara.

b) Currently the site is connected by the existing road with width varying from 15-25 ft and finally with 40 ft width of owner road to site.

c) The Layout plans were explained by the Project proponent and Consultant.

d) The natural small drain called Prachi Dhara is far from the site and PP needs to submit the required permission.

e) Following documents need to be submitted by PP:

i) Revenue map indicating plot details of the gifted land to widen the road from 13 ft to about 50 ft road with copy of gift deed, BMC order/permission

ii) Ownership of the land showing in revenue map for road expansion and further connecting the drain to Prachi Dhara

iii) BMC permission letter to construct drain in side of road and allow discharge of treated water to Prachi Dhara

iv) Also an affidavit that the PP will develop the road width from existing to 18 mtr to connect to the Avenue-7 and drain to be constructed in the side in their own land to discharge the treated water to Prachi Dhara

v) Structural stability, Traffic study vetted and green belt plan (as not much trees there)

vi) All other points covered during presentation to be complied.

24. 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.	Copy of Permission obtained from the concerned authority for drainage connection & discharge of storm water and treated water from STP.	Only the surplus water after the conservation and recycling measures from project will be discharged to Prachi Dhara which is nearer to the project site. Permission has been obtained from Bhubaneswar Municcipal Corporation vide letter no.31297, dated 03/07/2023. Permission letter is attached in **Annexure-1.**	Copy submitted
ii.	Documents/credentials in support of drainage discharge into the Prachi Dhara/Prachi River.	Permission has been obtained from Bhubaneswar Municipal Corporation vide letter no. 31297, dated 03/07/2023. Permission letter is attached in **Annexure -1.**	Copy submitted

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
iii.	Copy of Structural Stability study report.	Structural Stability certificate has been obtained from Jamia Millia Islamia vide letter dated 10.10.2023. Structural Stability certificate is attached in **Annexure-2.**	Copy submitted
iv.	Copy of Soil quality, soil stability and soil erosion study report before and after the construction.	Soil investigation has been conducted at project site & the soil investigation report is attached in **Annexure-3.**	Copy submitted
v.	Revisit the water balance to reduce the quantity of wastewater generation as the quantity of treated waste water discharge is very high i.e. 336.1 KLD.	Total fresh water requirement of the project is 373.5 KLD & flushing water requirement of the project is 181.1 KLD. Total wastewater generated from the project is 479.9 KLD & the treated water available from the STP is 456.0 KLD which is reused in Flushing (181.1 KLD), Dust Suppression (48.4 KLD), Landscaping (52.2 KLD) & 174.3 KLD treated water will be discharged to nearest drain i.e Prachi Dhara. There is further cope of using this surplus water for township level irrigation and horticulture requirement in future. Revised water balance is attached in. Revised water balance is attached in **Annexure-4.**	Revised Water Balance submitted showing 174.3KLD treated water discharge to drain.
vi.	Copy of land documents along with permission obtained from the landowners (General Power of Attorney or Sale deed) for construction of drainage network over the respective plots.	Drainage network has been planned along the existing village road and then through our own land which has been terminating to Prachi Dhara passing through the Plot No. 391/10875. Land document along with permission from landowner is attached in **Annexure-5** and the copy of Gift deed attached as **Annexure-6.**	Copy submitted
vii.	Details of Reduced Level of Ground water and Bottom Reduced level of Rainwater harvesting pit.	As per the existing study and data the Reduced Level of Ground water is 45.00 mtr from BGL and Bottom Reduced level of Rainwater harvesting pit will be 50.00 mtr from BGL.	-
viii.	Copy of traffic study report vetted by an Institute of Repute.	Copy of traffic study report vetted by India Institute of Technology (IIT), Bhubaneswar. IIT letter dated 04/12/2023 is attached as **Annexure-7.**	LOS is 'B' at present and will be 'C' after 10 years.
ix.	Clarify the discrepancy between proposed greenbelt percentage and documents submitted regarding the greenbelt.	Total Greenbelt area of the proposed project is 4345.0 sqm which is 20.4% of the net plot area (21313.0 sqm). Greenbelt layout of the proposed building is attached in **Annexure-8.**	-
x.	Document in support of access to Plot no-595 which is a Govt. land situated inside the proposed area and clarify the fate of the said Plot No. 595 (Govt. land).	There is 40' wide road in project area to access in Plot No. 595, Access Road shown in revenue map is attached as **Annexure-9.**	Road map is submitted
xi.	Documents in support of relaxation for	Reference document - ODA (Planning	All copies submitted.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	construction of 6m wide road in the By-Laws from the BMC.	and Building Standards) Rules 2020, Chapter - VI, OVERLAY RULES, clause (4) - (iv) attached as Annexure - 10. In addition to this, as per BMC letter vide No. 25968 dated 26/05/2023 there is provision to connect with 24.00 mtr road through 18.0 mtr road before occupancy Letter in support is attached as Annexure-11. Further the proposal for acquisition of CDP and master plan road in the vicinity of our project, which is part of East Kuakhai is at advance stage by Bhubaneswar Development Authority. A letter vide No 47498 same is enclosed as per **Annexure-12.**	

25. As per site visit report documents raised are:

i) Revenue map indicating plot details of the gifted land to widen the road from 13 ft to about 50 ft road with copy of gift deed, BMC order/permission – As per the ADS submitted

ii) Ownership of the land showing in revenue map for road expansion and further connecting the drain to Prachi Dhara - As per the ADS submitted

iii) BMC permission letter to construct drain in side of road and allow discharge of treated water to Prachi Dhara - As per the ADS submitted

iv) Also an affidavit that the PP will develop the road width from existing to 18 mtr to connect to the Avenue-7 and drain to be constructed in the side in their own land to discharge the treated water to Prachi Dhara – As per the ADS submitted BMC had also instructed to do the same as letter submitted under Annexure 11

v) Structural stability, Traffic study vetted and green belt plan (as not much trees there) - As per the ADS submitted

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

i) The PP needs to obtain permission from appropriate authority for discharge of excess treated effluents to nearby drain/nalla before construction or maintain zero discharge in all seasons.

ii) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.

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

iv) The proponent shall use solar energy at least to the tune of 5%of total power requirement as proposed.

v) The proponent shall obtain permission from concerned Fire Safety Authority.

vi) Trees located within the project area shall be transplanted to alongside the boundary green development area.

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

viii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.

ix) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

ITEM NO. 03

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR BHATAKUMARADA STONE QUARRY OVER AN AREA OF 15.805 HA. BEARING KHATA NO. 1769, PLOT NO. 4877, UNDER TOTAL CLUSTER AREA OF 17.423 HA. IN BHATAKUMARADA VILLAGE OF PURUSHOTTAMPUR TEHSIL, IN GANJAM DISTRICT OF SRI KRUPASINDHU MUDULI - EC

1. This proposal is for Environmental Clearance for Bhatakumarada Stone Quarry over an area of 15.805 ha. bearing Khata No. 1769, Plot No. 4877, under total cluster area of 17.423 ha. in Bhatakumarada village of Purushottampur Tehsil, in Ganjam District of Sri Krupasindhu Muduli.
2. **Category**: As per EIA Notification 2006 and its subsequent amendments, the proposed project falls under Schedule in Item 1(a)-Mining of Minerals.
3. Mining Lease granted by vide letter no 1631date 04/05/2022. Successful Bidder is Sri Krupasindhu Muduli S/o- Jhuriya Muduli, At- Ramakrushna Nagar, 2nd Lane, Lochapada, Berhampur.The proposed land doesn't fall in DLC land
4. The Mining Plan of Bhatakumarada Stone Quarry has been approved by Deputy Director of Geology, O/o The Joint Director of Geology, South Zone, Berhampur on dated 29.03.2022.
5. Mining lease is an identified sairat source in the DSR page no.69 sl.no. 37.
6. Terms of Reference (TOR), was issued by SEIAA, Odisha, vide proposal Letter Ref. No 5079/SEIAA, Dated 02.08.2022.
7. Public hearing was conducted on 10.01.2023 at Bhatakumarada village, under Purushottampur Tahasil of Ganjam District, Odisha. Issues raised during public hearing are protection of temple and other structures in locality, dust and noise pollution shall be controlled ,controlled blasting should be done, damage of roads due to transportation, local employment and livelihood, speed of transportation vehicles, safety of villagers and free health camp. Budget incurred for the action plan is Rs.1,90,000.

Table: CER Budget

Sl. No.	Activity	Capital Cost (in Rs.)/Annum
1.	Financial aid for medical camp in Bhatakumarada village. @ Rs. 15,000/ camp (4 camp in a year).	60,000
2.	Skill development program camps like computer learning, sewing etc. in Bhatakumarada village. @Rs 20,000/trainer (4 trainer)	80,000
3.	Construction of separate (for boys & girls) toilets in school of Bhatakumarada village (25,000/toilet)	50,000
TOTAL		**1,90,000**

8. **Location and connectivity**: The mine lease area is located in Village - Bhatakumarada, Tahasil- Purushottampur, District - Ganjam, Odisha, is on Khata no- 1769, Plot no- 4877 covered in the Survey of India Topo Sheet No –E45A15 and is bounded between the Latitude -19°25'26.86" N to 19°25'45.47" N and Longitude – 84°52'07.95" E to 84°52'24.55" E. Kissam of land is Parbat. Nearest water bodies are - Bhatakumarada Water Reserve, approx. 1.60 km in N direction, Sahi Bandha Water Reserve, approx. 4.0 km in NE direction. Nearest town is Purushottampur, approx. 9.80 km in North direction. Nearest Railway station is Narsimhapur Railway station, approx. 8.50 km in SE direction. Nearest National Highway - SH 32, approx. 0.18 km E direction. Nearest Airport - Biju Patnaik International Airport is approx. 130 km towards NE direction.

9. **Total Reserves and Proposed Production**: As estimated, Geological Reserves is 47,05,691 Cum (Proposed Mine) and 3,15,900 Cum (Existing Mine) ; Mineable Reserves is 38,94,937 Cum (Proposed Mine) and 1,74,150 Cum (Existing Mine) ; Proposed Production is 1,03,320 Cum /Annum (Proposed Mine) and 2664 Cum /Annum (Existing Mine).

Year	Total Production in cum
1st	103320
2nd	103320
3rd	103320
4th	103320
5th	103320
Total	**516600**

10. **Mining method**: Mining will be done by opencast semi-mechanized method. Proposed Mining Depth is 35m. Transportation of minerals will be done by an approach road of approx.0.25 km which further connects to SH 32.

11. **Waste generation and management**: Total 57400 Cum waste generated in the proposed project.

Year	Waste /Rejects in cum
1st Year	11480
2nd Year	11480
3rd Year	11480
4th Year	11480

Year	Waste /Rejects in cum
5th Year	11480
Total	**57400**

12. **Water requirement**: Total Water Requirement will be 6.0 KLD for proposed project and 8.00 KLD for Cluster.

Activity	Calculation	Round off Figure in KLD
Drinking	@ 10 lpcd per labor 10*106/1000= 1.06 KLD	1.06
Dust Suppression	**Total approach road to be water sprinkled** = 500 m 500 m*6m*0.5 *2 times/1000= 3.0 KLD	3.0
Plantation	1742 plant (during plan period) @ 2 L/per plant= 1742*2lts= 3484/1000= 3.48 KLD	3.48
Total		**7.54 ~ 8.00**

13. **Power requirement**: Electrical power will be required only for site office and will be obtained from Solar energy.
14. **Greenbelt**: 1580 plants has been proposed for the project and 1742 for Cluster.

Year	Green belt Nos.
	In Safety Zone, Approach road & at other place in village after consulting local authorities
1st	--
2nd	1580
3rd	Maintenance
4th	
5th	
Total	**1580**

Year	Green belt Nos.
	In Safety Zone, Approach road & at other place in village after consulting local authorities
1st	--
2nd	1742
3rd	Maintenance
4th	
5th	
Total	**1742**

15. Baseline study details: Baseline Study conducted during March, 2022 to May, 2022.

a) Air quality: Ambient Air Quality Monitoring reveals that the minimum & maximum concentrations of PM10 for all the 8 AQ monitoring stations were found to be 40.24 to 63.79 µg/m3 with the 98th percentile ranging between 54.35 µg/m3 to 63.57 µg/m3 . The minimum & maximum concentrations of PM2.5 were found to be 20.28 µg/m3 to 32.42 µg/m3 with the 98th percentile ranging between 26.02 µg/m3 to 32.41 µg/m3 . As far as the gaseous pollutants SO2 and NOx are concerned, the prescribed CPCB limit of 80µg/m3 for residential and rural areas has never surpassed at any station. The minimum & maximum concentrations of SO2 were found to be 7.23 to 14.28 µg/m3 with the 98th percentile ranging between 11.55 µg/m3 to 13.24 µg/m3 . The minimum & maximum concentrations of NOX were found to be 9.68 µg/m3 to 21.70 µg/m3 with the 98th percentile ranging between 15.10 µg/m3 to 21.23 µg/m3.

b) **Water quality**: The pH limit fixed for drinking water samples as per IS-10500 Standards is 6.5 to 8.5 beyond this range the water will affect the mucus membrane or water supply system. During the study period, the pH was varying for ground waters from 7.24 to 7.86 & in Surface water from 7.24 to 7.56. The pH values for all the samples collected in the study area during study period were found to be within the limits. The desirable limit for total dissolved solids as per IS-10500 Standards is 500 mg/l whereas the permissible limit in absence of alternate source is 2000mg/l. In ground water samples collected from the study area, the total dissolved solids are varying from 322 mg/l to 405 mg/l. Hardness of ground water varies from 219 mg/l to 265 mg/l. The desirable limit for Hardness is 200 mg/l whereas the permissible limit is 600mg/l. Concentration of Fluorides varied from 0.21 mg/l to 0.40 mg/l.

c) **Noise study**: The values of noise observed in some of the areas are primarily owing to vehicular traffic. Assessment of hourly night time Leq (Ln) varies from 36.5 to 44.3 dB (A) and the hourly daytime Leq (Ld) varies from 45.8 to 59.2 dB (A) within the study area. The status of noise quality within the 10 km zone of the study area is, therefore, within the MoEF& CC standards.

d) **Soil study**: Physical characteristics of soil were characterized through specific parameters viz bulk density, porosity, water holding capacity, pH, electrical conductivity and texture. Soil pH plays an important role in the availability of nutrients. Soil microbial activity as well as solubility of metal ions is also dependent on pH. In the study area, variations in the pH of the soil were found to be slightly alkaline (7.23 to 7.64). Electrical conductivity (EC) is a measure of the soluble salts and ionic activity in the soil. In the collected soil samples the conductivity ranged from 274- 320 µmhos/cm.

16. **Manpower**: 102 nos of persons are required for proposed project and 106 nos of persons for Cluster.

17. **Project Cost** –Total estimated cost for the proposed project is 60 Lakhs and 100 Lakhs for Cluster. (For Proposed Mine Bhatakumarada Stone Quarry) Capital cost is 3.785 Lakhs and Recurring cost is 4.01 Lakhs/annum; (For Cluster) Capital cost is 4.734 Lakhs and Recurring cost is 7.02 Lakhs/annum.

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

S. No.	Measures	Capital Cost (In Rs.)	Recurring Cost (In Rs.)
2.	Pollution Monitoring i) Air pollution ii) Water pollution iii) Soil Pollution iv) Noise Pollution	--	50,000 40,000 20,000 10,000
3.	Green belt development	3,16,000	1,00,000
4.	Maintenance of approach road	62,500	81,000
Total		**3,78,500**	**4,01,000**

S. No.	Measures	Capital Cost (In Rs.)	Recurring Cost (In Rs.)
1.	Pollution Control Dust Suppression /Water Sprinkling	--	2,00,000
2.	Pollution Monitoring i) Air pollution ii) Water pollution iii) Soil Pollution iv) Noise Pollution	--	1,00,000 80,000 40,000 20,000
3.	Green belt development	3,48,400	1,00,000
4.	Maintenance of approach road	1,25,000	1,62,000
Total		**4,73,400**	**7,02,000**

18. **Environment Consultant:** The Environment consultant **M/s P & M Solution, Noida** along with the proponent made a presentation on the proposal before the Committee on 31.07.2023.

19. The SEAC in its meeting held on **31-07-2023** decided to take the decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
a.	Cluster details along with revised KML showing all the quarries in the cluster.	Cluster KML file has been sent to the mail ld-seac.odisha.2019@gmail.com and the PDF photo has been attached as **Annexure-XIV.**	submitted
b.	Status of other mines in cluster and their present operation status. As informed other mines have already closed due to forest land involved in the lease area. Name of such mines and an undertaking from the concerned Tahasildar that they are not in operation due to involvement of Forest land in the lease area and will not be put into auction in future.	Undertaking from Tahasildar, Purushottampur regarding the status of other mines in cluster has been attached as **Annexure-I.**	submitted
c.	The lessee informed that only two quarries in operation and one has already obtained Environmental Clearance in 2021. The proponent has to clarify along with copy of	Clarification letter from Tahasildar, Purushottampur regarding cluster approach has been attached as **Annexure-II.**	submitted

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	Environmental Clearance of other mine as to why this will not be treated as cluster approach.		
d.	Copy of Environment Clearance, Consent to Establish and Consent to Operate obtained for existing quarry.	EC copy, CTE and CTO copy of existing quarry has been attached as **Annexure-III.**	submitted
e.	Proposal for Fly Rocks Management and safety measures.	Proposal for Fly Rocks Management and safety measures has been attached as **Annexure-IV.**	submitted
f.	Certified document from Tahasildar regarding the distance of nearest habitation from the blasting site as well as lease boundary.	Certified copy from Tahasildar, Purushottampur regarding the distance of nearest habitation from the blasting site as well as lease boundary has been attached as **Annexure-V.**	submitted
g.	An undertaking that they will explore to use liquid explosives as the habitational area is nearby.	Undertaking from the project proponent regarding use of liquid explosive during blasting has been attached as **Annexure-VI.**	submitted
h.	Compliance to the specific ToR-5 about how much waste/rejects will be used in construction & maintenance of haulage road.	Specific ToR compliance regarding waste/ rejects during construction and maintenance of haulage road has been attached as **Annexure-VII.**	submitted
i.	Detailed proposal for Surface Run-off Treatment System (SRTS) to be followed. Zero discharge of waste water/surface run – off from mining lease area to nearby public pond shall strictly be followed.	Declaration of proponent regarding Zero discharge of waste water/ surface run-off from mining lease area to nearby public pond has been attached as **Annexure-VIII.**	submitted
j.	Reduced level of water level in pre-monsoon and post monsoon and reduced level of mining pit to be submitted.	Water label data in Pre-monsoon and post-monsoon has been attached as **Annexure-IX.**	submitted
k.	Detail proposal for issues raised in Public Hearing with special reference towards protection and renovation of temple and haulage road.	Action plan regarding issues raised in public hearing for protection and renovation of temple and haulage road has been attached as **Annexure-X.**	submitted
l.	Detailed management plan on waste generated in mines and Crusher unit.	Waste management plan of mine and cluster unit has been attached as **Annexure-XI.**	submitted
m.	Note on blasting management and engagement of expert for guiding in blasting in mining area as habitation is very close to the lease area.	SOP for blasting has been attached as **Annexure-XII.**	submitted
n.	The proponent shall not resort to deep hole blasting without due approval from DGMS.	Declaration of project proponent regarding blasting has been attached as **Annexure-XIII.**	submitted

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s P & M Solution, C-88, Sector 65, Noida** 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 **Bhatakumarada Stone Quarry** cluster without referring to SEAC with specific conditions as per **Annexure – A** 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) Report on vibration study.

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

vii) 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.

viii) 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.

ix) 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.

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

xi) The project proponent shall undertake re-grassing of the area or any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for fodder, flora, fauna etc. after ceasing mining operation that is at the time of mine closure.

xii) A condition on SOP for blasting and safety on management of flying rock to be implemented and detail risk and hazard management procedure shall be followed by the lessee as per the **Annexure – C.**

xiii) Haulage road shall be developed and maintained perennially and perpetually by the proponent in consultation with the concerned authority of the Govt.

ITEM NO. 04

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S SJD- PRESIDENCY HOMES LLP FOR RESIDENTIAL PROJECT "ROYAL PRESIDENCY" OVER A BUILT-UP AREA 31862.910 M^2 AT PLOT NO. - 755,755/4117, RAGHUNATHPUR, P.S. NANDANKANAN, BHUBANESWAR, DISTRICT – KHURDA OF SRI BHABANI SHANKAR RATH - EC

1. This proposal is for Environmental Clearance of M/s SJD- Presidency Homes LLP for Residential Project "Royal presidency" over an built up area 31862.910 m^2 at Plot No. - 755,755/4117, Raghunathpur, P.s. Nandankanan, Bhubaneswar, District – Khurda of Sri Bhabani Shankar Rath.

2. **Category**: The project falls under category "B" or activity 8 (a)-Building and construction project under EIA Notification dated 14th September 2006 as amended from time to time.
3. The project area comes under Khurda Municipal Council and building approval is approved by Bhubaneswar Development Authority vide letter no 12746 dated 21.04.2023.
4. **Location and connectivity**: The proposed project is located at Plot No. 755, 755/4117, Mouza – Raghunathpur, P.S. – Nandankanan, Bhubaneswar, Dist.- Khordha, Odisha bounded by Latitude: 20°23'20.53"N and Longitude: 85°49'30.12"E bearing Toposheet No. F45T15. The Nearest Highway is NH-16 is approx. 5.9 km in East direction. The nearest railway station is Bhubaneswar New Junction approx. 1.2 km in south east direction from the project site and Biju Patnaik International Airport is at a distance of approx. 13.9 km in south direction from the project site.
5. **Area details**: The total area of project site is 6,879.594 m^2 (1.7 acres).

S. No.	PARTICULARS	AREA (SQ.M.)
1.	Total Plot area	6879.594
2.	Road affected area	1358.35
3.	Net Plot Area	5521.24
4.	Permissible Ground coverage (@40% of the net plot area)	2,208.498
5.	Proposed Ground coverage (@29.25 % of the net plot area)	1615.430
6.	Permissible F.A.R (@6.0 of the Net plot area)	33,127.464
7.	Proposed F.A.R (@ 4.003 of Net plot area)	22,104.530
8.	Non F.A.R	9758.380
9.	**Total Built-up Area (7 + 8)**	**31,862.910**
10.	Height of the Building (m)	93.75
11.	Landscape area (18.56 % of Net plot area)	1025.280

6. **Building details**: The maximum height of the building will be 88.34 m. The total plot area is 6,879.594 sqm. The permissible ground coverage will be 2,208.498 sqm (40% of the plot area) and proposed Ground Coverage will be 1615.430 (29.25 % of the plot area).The permissible FAR will be 33127.464 sqm (@6.0 of plot area) and proposed FAR will be 22104.530 sqm (@ 4.0 of plot area). The Non-FAR for the project will be 9758.380sqm. Total built up area for the project will be 31862.9103 sqm. The total population of project after proposed will be 1173 persons.

7. **Water Requirement:** The total water requirement approx. 119 KLD out of which total domestic water requirement is 104 KLD. The total freshwater requirement is approx. 71 KLD which will be met from ground water augmented with rain water.

S. No.	Description	Occupancy	Rate of water demand (lpcd)		Total Water Requirement (KLD)		
A.	Domestic Water		Fresh	Flushing	Fresh	Flushing	Total
1.	Residents	675	90	45	61	31	92
2.	Staff	75	25	20	2	2	4

S. No.	Description	Occupancy	Rate of water demand (lpcd)		Total Water Requirement (KLD)		
3.	Visitors	423	5	10	3	5	8
		1173			66	38	104
	Total Domestic Water = 104 KLD						
B.	Horticulture	1025.280 m^2	7 l/sqm		7 KLD		
C.	Make up water for Swimming Pool				5 KLD		
D.	Filter Back Wash water				2.5 KLD		
	Grand Total (A+B+C+D) = 119 KLD						

8. **Wastewater details:** The project will generate approx. 94 KLD of wastewater. The wastewater will be treated in an onsite STP of 115 KLD capacity. The treated water (85 KLD @ 90% of total wastewater) will be reused for flushing (38 KLD), horticulture (7 KLD) and Swimming pool (1KLD). Surplus treated effluent will be discharged to external sewer with due permission of Development Authority.

Domestic Water Requirement	**104 KLD**
• Fresh	66 KLD
• Flushing	38 KLD
Waste water [@80% fresh + 100% flushing + 100% Filter Backwash]	52.8+38+2.5= 94 KLD
STP Capacity	**115 KLD**

9. **Rainwater harvesting:** Total 07 Rainwater storage tanks at different locations will be constructed. Peak hourly rainfall has been considered as 140 mm/hr.

Area	Area (m^2)	Coefficient of run-off	Peak hourly rainfall intensity (m)	Rainwater collection potential/hour (m^3/hr)
Roof-top area	1615.430	0.95	0.140	214.85 m^3/hr
Total Runoff Load =214.85 m^3/hr				
Taking 20 minutes retention time, total volume of storm water will be = 214.85 /3			71.617 m^3 say 72 m^3	
Rainwater storage tanks are proposed for rainwater collection				

10. **Parking details:** Total Proposed Parking is 181+24+11 = 216 ECS. Total Proposed Parking Area is 6718.550 m^2 (including 668.644 m^2 for visitors).

11. **Power Requirement:** The power supply will be through TPCODL. The total maximum demand is estimated as 1400 kVA. There is provision of 2 nos. of DG sets of 1010kVA and 720 kVA total 1730 kVA capacity for power back up. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper

- dispersion.

12. Solid waste generation: The total solid waste generation will be 435 kg/day.

S. No.	Category	Norms (Kg/capita/day)	Waste generated (kg/day)
1.	Residents (675)	@ 0.5 kg/day	338
2.	Staff (75)	@ 0.25 kg/day	19
3.	Visitors (423)	@ 0.15 kg/day	64
4.	Landscape waste (0.2533 acre)	@ 0.2 kg/acre/day	0.06
5.	STP sludge	Waste water x 0.35 x B.O.D difference/1000	13
	TOTAL SOLID WASTE		**435 kg/day**

13. Greenbelt: Total green area measures 1025.280 m^2 i.e. 18.56 of the plot area. Evergreen tall and ornamental trees have been proposed to be planted inside the premises. No. of trees required = 1 tree/80 sq.m. of plot area = 5521.24 /80 = 69.01 say 69 Nos. Total no. of trees proposed is 75. The plantation matrix adopted for the green belt development includes pit of 0.3 m × 0.3 m size with a spacing of 2 m x 2 m. Peripheral plantation comprising of medium height trees (7 m to 10 m) and shrubs (5 m height) are proposed for the green belt.

14. Project cost: Total Project cost is INR 95 Cr. Including land and development cost. The capital cost for environmental management of the proposed project is estimated to be Rs. 33.47 lakhs. Rs. 15.01 lakhs per year will be required as annual recurring expenses to meet the recurring expenditure for implementing the measures

Table: COST OF ENVIRONMENT MANAGEMENT PLAN

COMPONENT	CAPITAL COST (INR LAKH)	RECURRING COST (INR LAKH/YR)
Sewage Treatment Plant	11.5	2.88
Rain Water Harvesting System	10.5	2.6
Solid Waste Management	0.87	0.22
Environmental Monitoring	0	9
Green Area/ Landscape Area	0.6	0.16
Others (Energy saving devices, miscellaneous)	10	0.15
Total	**33.47**	**15.01**

Table: Environmental monitoring cost (operation phase)

S. No.	Particulars	Parameters	Frequency	Approx. Recurring Cost /Annum (INR Lakh)
1.	Ambient Air Monitoring	$PM_{2.5}$, PM_{10}, SO_2 CO & NO_2	Once in Every Three Months	2.0

2.	Stack Emission Monitoring	$PM_{2.5}$, PM_{10}, SO_2, NO_2, CO HC	Every Six Months	2.0
3.	Treated Effluent Monitoring	pH, BOD, COD, Oil, Grease & Total Suspended solids	Daily	2.0
4.	Noise Level Monitoring	24 Hrs. Noise Level	Every Three Months	1.0
5.	Water Quality Monitoring	Drinking Water Specifications as per IS 10500	Once in three months	2.0
	TOTAL			9.0 Lakh

15. **Environment Consultant**: The Environment consultant **M/s Grass Roots Research & Creation India (P) Ltd. Noida** along with the proponent made a presentation on the proposal before the Committee.

16. The SEAC in its meeting dated **05-07-2023** recommended the following:

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

a) Calculation of parking area details along with percentage.

b) Provision for increase in greenbelt minimum up to 20% and accordingly, detailed calculations to be submitted.

c) Undertaking by the Project Proponent that the commercial complex will be used for residents of the apartment only.

d) Source of water used for construction purposes.

e) Width of fire fighting corridor.

f) Details of arrangement for proper drainage of storm water and excess treated water

g) RL of ground water during summer and rainy season along with the RL of the bottoms of the proposed rainwater collection tanks.

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

i) Environmental settings of the project site.

ii) Construction activity, if any started at the site.

iii) Road connectivity to the project site.

iv) Drainage network at the site.

v) Discharge point for discharge of treated water and distance of the discharge point from the project site.

vi) Any other issues including local issues.

17. The proposed site was visited by the sub-committee of SEAC on **14.07.2023**. Following are the observations of the sub-committee.

i) PP and Consultant were present along with all team members.

ii) The PP explained the site plan with all environment related parts. It was observed that a road (proposed) to pass through the site as per the BDA Master plan. The PP has already marked the area to be left out of construction and plan to construct a foot over bridge for crossing of the residents by walk. PP was asked to submit supporting documents in addition to discharge of excess treated water to drain from appropriate authority.

iii) It was observed that the site is adjacent to the Jaydev Vihar Nandan Kanan Main Road having access to site and there is drain at side of the road.

iv) Documents asked during presentation needs to be submitted and comply all environment conditions as per statutory requirement.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
a)	Calculation of parking area details along with percentage.	Detailed parking area calculation is enclosed as **Annexure I**.	parking area proposed - 6718.550 m^2 / 216ECS
b)	Provision for increase in greenbelt minimum up to 20% and accordingly, detailed calculations to be submitted.	Revised greenbelt area details and Landscape layout are enclosed as **Annexure II (a)** and **Annexure II (b)**.	Revised greenbelt area is 1104.25m^2
c)	Undertaking by the Project Proponent that the commercial complex will be used for residents of the apartment only.	The commercial complex will be used for residents of the apartment only. Undertaking for the same is enclosed as **Annexure III**.	Undertaking submitted
d)	Source of water used for construction purposes.	Source of water during construction will be private tankers. Agreement letter with tanker agency is enclosed as **Annexure IV**.	Copy enclosed
e)	Width of fire fighting corridor.	The width of the firefighting corridor is kept as 7.5 m. road with a walkway passage attached for 1.5 m. with a turning radius pathway of 9.0 m.	-
f)	Details of arrangement for proper drainage of storm water and excess treated water	Layout of outlet point of excess storm water and treated water is enclosed as **Annexure V (a)**, EIDP Letter is enclosed as **Annexure V (b)**.	Copy enclosed
g)	RL of ground water during summer and rainy season along with the RL of the bottoms of the proposed rainwater collection tanks.	RL of the RWH pit's bottom is 3.15 m bgl. Ground water table for pre monsoon is 4.99 m bgl and post monsoon is 4.2 m bgl.	-

19. As per site visit report documents raised are:

i) The PP explained the site plan with all environment related parts. It was observed that a road (proposed) to pass through the site as per the BDA Master plan. The PP has already marked the area to be left out of construction and plan to construct a foot over bridge for crossing of the residents by walk. PP was asked to submit supporting documents in addition to discharge of excess treated water to drain from appropriate authority – As per the ADS submitted the drainage plan is approved by Chief Engineer Drainage Cuttack under EIDP.

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

i) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.

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

iii) The proponent shall use solar energy at least to the tune of 5%of total power requirement as proposed.

iv) The proponent shall obtain permission from concerned Fire Safety Authority.

v) Trees located within the project area shall be transplanted to alongside the boundary green development area.

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

vii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.

viii) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

ix) **The Sub-Committee of SEAC during its visit observed that a road (proposed) to pass through the site as per the BDA Master plan. The PP has already marked the area to be left out of construction and plan to construct a foot over bridge for crossing of the residents by walk. The proponent shall start to construct a foot over bridge at priority before building construction.**

ITEM NO. 05

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S CHROME SAGAR FOR ENHANCEMENT IN PRODUCTION OF CHROME BENEFICIATION PLANT FROM THROUGHPUT CAPACITY OF 18,500 TPA TO 1,15,000 TPA AND MONOLITHIC UNIT FROM 24,000 TPA TO 72,000 TPA OVER AN AREA OF 7.6 ACRE LOCATED AT: PUBALA, SUKINDA, JAJPUR OF SRI RAJENDRA KUMAR THATOI - EC

1. This proposal is for Environmental Clearance of M/s Chrome Sagar for Enhancement in production of Chrome beneficiation plant from throughput capacity of 18,500 TPA to 1,15,000 TPA and monolithic unit from 24,000 TPA to 72,000 TPA over an area of 7.6 Acre located At: Pubala, Sukinda, Jajpur of Sri Rajendra Kumar Thatoi.
2. **Category**: This project falls under Category "B" under 2(b): Mineral Beneficiation as per EIA Notification dated 14thSept. 2006 and its amendments.

3. **TOR details**: Terms of Reference was issued by SEIAA, File No: 72961/27-IND/03-2022 dtd. 02.04.2022 for the proposed project.

4. The unit has chrome beneficiation plant of 18,500 TPA throughput Environmental Clearance from MoEF&CC, Govt. of India, vide letter no. 1611/SEIAA dated 06.07.2021.

5. **Public hearing details**: The Public hearing was conducted successfully 14.09.2022 at 11 A.M. at Mouza - Kanchichua.

6. **List of Statutory Clearances obtained earlier -**

   a) Consent to Establish was granted vide letter No: 179/KNG/IND- 266 dtd 06.02.2020.

   b) Consent to Operate obtained vide letter no.1692/KNG/IND/266 dtd 08.07.2021 was valid till 31.03.2023.

   c) Certified Compliance Report issued by Regional Officer, Bhubaneswar, MoEF&CC vide File No: 109-1146/EPE/&63 dated 03.08.2023.

7. **Location and connectivity:**

8. Chrome Beneficiation Plant of M/s. Chrome Sagaris coming undervillage Pubala, Po- Mangalpur, Tahasil: Sukinda, Dist- Jajpur at Plot No:1138,1139/1640 & 1278/1641, 1139, 1152, 1277,1278 and bearing Khata No.: 267/39 & 95. Geo-coordinates of project site is at Latitude: 20°56'04" N &Longitude: 85°33" E. The nearest railway station is Jajpur Road railway station &Sukinda Road railway station located at a 17Km from the project site. It is located at a distance of 2.5km from the Sukinda-hatibari road and nearest village is Pubala village at a distance of 1km. Bhubaneswar Airport is 80km from the site. The nearest water bodies are Brahmani River at 8.5km & Jhamra river-4.5 km. The nearest Reserve Forest is Balibo Reserve Forest at 1km distance. The project falls under Survey of India bearing **Topo sheet no**. 45T/13.

9. **Baseline study conducted:** Baseline study was conducted during Pre-Monsoon season of 2022 i.e. from March to May, 2022.

   a) **Ambient Air monitoring:** -Ambient Air Quality was monitored at eight sampling stations, and the monitoring were conducted for a period of three months. PM_{10} is within range of 55.6µg/m^3 to 84.1 µg/m^3, $PM_{2.5}$ is within range of 30.6µg/m^3 to 46.2 µg/m^3, SO_2 is within range of 4.3µg/m^3 to 12.3 µg/m^3 and NO_X is within range of 13.4µg/m^3 to 22.3 µg/m^3.

   b) **Ground Water quality monitoring:** Groundwater quality parameters were monitored at 8 locations. pH is within range of 6.6 – 7.6, Total Hardness is within range of 28 to 192 mg/l, Chloride is within range of 12 to 70 mg/l, Fluorides is within range of 0.06 to 0.8 mg/l, TDS is within range 36 to 360 mg/l. Heavy metals like Cadmium, Arsenic, Mercury and Chromium are within the range of Cd <0.001mg/l, As <0.001mg/l, Hg<0.0005mg/l Cr^{+6}<0.05mg/l.

   c) **Surface Water quality monitoring:** Surface water quality parameters were monitored at 4 locations. pH is within range of 6.8 to 7.3, Dissolved Oxygen is within range of 6.7 to 7.6 mg/l, Biochemical Oxygen Demand is within range of 2-4 mg/L, Chemical Oxygen demand is within range of 15 – 35 mg/L & Cr^{+6}<0.05mg/l.

   d) **Ambient Noise monitoring:** Noise level in the study area was monitored at eight sites. Noise levels vary from 40.4 to 50.7dB (A) during day time and 31.2 to 41.3dB (A) during night time.

e) **Soil monitoring:** Soil samples were collected from four locations. The pH of the samples ranged from 5.5 to 6.5, Potassium –228.5 to 376 mg/ kg, Phosphorous –27.9 to 48.1 mg/ kg, Organic Carbon% –0.56 to 1.07, Electrical Conductivity- 60 to 100 µmhos/Cm, Total Chromium – 45.74 – 55.26 mg/ Kg, Hexavalent Chromium – 5.6 to 9.5 mg/Kg.

10. **Process Details:**

a) **Details of Minerals:** The beneficiation process of chrome ore involves up-gradation of low-grade chrome ore (<35-38% Cr_2O_3) to semi high-grade ore (48-52% of Cr_2O_3). Raw material procured from OMC Chromite mines located in Sukinda valley.

b) **Beneficiation process:** The project is a standalone beneficiation plant. The beneficiation process of chrome ore involves up-gradation of low-grade chrome ore (<35-38% Cr_2O_3) to semi high-grade ore (48-52% of Cr_2O_3). The beneficiation process of chrome ore includes dispersal of the ferruginous coating and removal of the gangue material from the ore. Before the low-grade feed to the beneficiation plant the chromite, ore lumps were screened and oversized material i.e. 20 to 100 mm size material will be sent to the grinding unit. The Recovery rate is 70-75% (in weight). The COB Plant will consist of the following activities; Feeding to the Hopper – 20 TPH, Conveyor, Wet screening (2 nos) (0-1mm and 1-75mm), Wet grinding – 20 TPH, Slurry Pump (7 no) – 5 TPH, Spiral separator (24 nos) – 5 TPH, Hydro cyclone (3 nos) – 10 TPH, settling tanks, Dozing of Chemicals, Collection & Disposal of tailing, Water Reservoir, Handling of rejects materials, Recovery of concrete.

c) **Land use at the end of plan period and at conceptual stage: The** existing plant is present plant is operating over an area of 2.2 acres. Additional land of 5.4 acres has been acquired by the project proponent and converted for Industrial purpose.

Sl. no	Head	At present at the (Ha.) / Existing Area	At the end of SOM of period (Ha.)/ Proposed Area	At the end of conceptual period (Ha.)/ Total Land use after Expansion
i)	Rain Water Reservoir	0.18	0.11	0.29
ii)	ETP & Settling Tank	0.07	0.27	0.34
iii)	Raw Material Stock Yards	0.31	0.19	0.5
iv)	Finished Products Stock Yard	0.05	0.17	0.22
v)	COB Plant	0.15	0.45	0.6
vi)	Road and Parking	0.25	0.15	0.4
vii)	Office, Weigh Bridge and Rest Shade and Electrical Panel	0.1	0.03	0.13
viii)	Refractory Unit	0.18	0.18	0.36
ix)	Tailing Stack Yard	0.18	1.18	1.36
x)	Green Belt	0.73	1.78	2.51
xi)	Open space	--	0.89	1.89
	Total	**2.2**	**5.4**	**7.6**

11. **Transportation of raw Material:** The raw material i.e. low-grade chrome ore will be sourced from mines of Odisha Mining Corporation, Sukinda which is located at a distance of 25 Km from the project site. The transportation of ore from the mines to the project site will be done through covered trucks.

12. **Water requirement**: The total water requirement for the proposed project will be 875 KLD and make up water requirement for process will be 44 KLD. The water requirement for drinking purpose will be 3 KLD, for dust suppression will be 5 KLD and for plantation will be 5 KLD. Total makeup water requirement for the proposed expansion project will be 57 KLD. Out of the total water requirement 32 KLD will be sourced from ground water and 25 KLD will be sourced from RWH pond. They have obtained permission for drawl of 48 KLD ground water from CGWA.

13. **Wastewater details:** The process water is completely recycled in the process and the water is treated in existing ETP for hexavalent chromium.

14. **Rainwater harvesting details:** They have 5 nos. of existing rainwater reservoir. The total harvestable rainwater is 7740Cu.m/Annum. They have proposed for another rain water reservoir of capacity 6064Cu.m/Annum. Water storage in the rain water harvesting pond is 8271cu.m which will be utilized as make up water requirement for the beneficiation plant. The rain water harvesting structure will provide the makeup water requirement for the plant upto 25 KLD. Total makeup water requirement will be 57 KLD and rest 32 KLD water will be sourced from ground water.

15. **Power Requirement & Solar power details:** The total power requirement for plant operation will be about 100kVA. The company proposed to utilize solar power for all the lighting within the plant by generating 5KW.

16. **Solid waste generation:** The major solid waste is the tailings generated from the beneficiation process. The quantity of tailings to be 30000 TPA having <10% Cr_2O_3. The tailing after passing through the filter press will be transported to the chrome monolithic unit where it will be used as raw material for monolithic plant.

17. **Mitigation of solid waste produced:** The amount of Tailing generated from the beneficiation plant will be 30,000 TPA from which 18,000 TPA will be utilized in the monolithic unit. Remaining Tailing (12,000 TPA) will be stored in the tailing disposal area. An area of 6000 sq.m has been allocated for tailing storage within the project site. An agreement has been made with M/s. Ramkey for tailing disposal of 3000 Tons per month. The plant has proposed to operate as zero solid waste generation. The tailing pond has been provided with of 200mm thick concrete wall. The concrete mixture added with special chemical to prevent any water seepage which ensures any leaching of hexavalent chromium to surrounding.

18. **Greenbelt Development:** The proponent has proposed for additional plantation area of 7221sq.mwith existing plantation area of 2938sqm thus, the total greenbelt area is 10149sq.m i.e., 33% after expansion.

19. **Total Employment:** The project generates employment opportunities for 70 personnel which includes operator -10, supervisor 6, 25 no of semi-skilled labour and 29 no of unskilled labour.

20. **Project Cost:** The project cost after expansion is ₹ 3.0 Crore. The Capital cost for EMP is ₹ 32.0 Lakhs and recurring cost is 5.0 lakhs. Cost allocated for implementation of public hearing issues is 30.0 Lakhs

21. **Environment Consultant**: The Environment consultant **M/s Kalyani Laboratories Private Limited, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee on 18.10.2023.

22. The SEAC in its meeting held on dated **18-10-2023** decided to take the decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i.	Land document of 2.2 acres of existing plant premises and additional land of 5.4 acres already acquired for proposed expansion.	Land document for the entire land of 7.6 acres is attached **Annexure 1.**	Copy submitted
ii.	Comparison statement of all parameters for existing and proposed expansion activities.	Comparative statement of all parameters for existing and proposed expansion activities has been given in **Annexure 2.**	Comparative table submitted.
iii.	Agreement made with M/s Ramkey (A Hazardous waste disposal TSDF facility) for disposal of tailings cannot be accepted and hence to Modify the proposal w.r.t. handling and disposal of entire tailings and Re-submit before the SEAC.	As per the material balance 30000 TPA of tailing will be generated out of which 18000 TPA will be used for chrome monolithic unit. Rest 12000 TPA will be stored in the defined tailing disposal area. The revised layout plant and tailing disposal details has been given in **Annexure 3.**	Submitted
iv.	Revised waste management plan for handling total waste generated at the plant premises taking into consideration the enhancing the capacity of the plant and subsequent unit operations.	Revised tailing generation and disposal proposal for the proposed expansion proposal is given as **Annexure 3.**	-
v.	Copy of traffic study report duly vetted by an institute of repute.	Vetted traffic study report is attached as **Annexure 4.**	As per the Traffic study report the LOS is 'B' at present.
vi.	Details regarding parking plaza (how trucks will enter, exit, Slope, parking and turning area) and open space available for movement of vehicles to cater to the increased vehicular movement of Approx. 32 trucks/day.	Parking area of 0.4 acres has been provided within the plant premises. Out of the total area 0.1 acres has been allocated for parking of staff vehicles and 0.3 acres has been allocated for parking of 36 nos of trucks. However, truck required for transportation of raw material and products are 32 nos. per day and that can be accommodated within the plant premises. There is the separate entrance and exit gate for trucks and open space available for movement of trucks. Details of parking regarding entry and exit of trucks is given in **Annexure 5.**	Annexure 5 is the Layout showing Parking area places in project site.
vii.	Copy of revised layout of the total area including existing and proposed expansion activity with parking plaza.	Details of parking regarding entry and exit of trucks is given in **Annexure 5**	submitted
viii.	Copy of material balance and water balance for the proposed project.	Details of material balance and water balance attached **Annexure 6**	submitted
ix.	Details of the settling tanks with layout and proposal for removal of sludge from the settling tanks.	Presently there are three settling tanks which are used for settling of the process water which is the overflow of the hydro cyclone. After settling the water is pumped to the water storage tank the sludge from 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></td><td>tank will be excavated and stored in the tailing disposal area details layout of the settling tank is given in the layout plan.</td><td></td></tr>
<tr><td>x.</td><td>Explore mechanised handling of slurry/tailings through clarifier/thickener instead of settling tank with filter press for de-watering of tailings.</td><td>The clarifier and thickner system is already been installed in the ETP However for the process tailing dewatering will be done by the filter press as the clarifier and thickener system will not work for the tailing.
Details process of ETP is given in Annexure 7.</td><td>process of ETP is explained in Annexure 7</td></tr>
<tr><td>xi.</td><td>Certified compliance report of conditions stipulated in earlier Environmental Clearance from Regional Office, MoEF&CC and certified compliance report of conditions of existing Consent to Establish and Consent to Operate order from SPCB.</td><td>Certified compliance report from MoEF&CC and compliance report of Consent to establish and consent to Operate is attached Annexure 8</td><td>submitted</td></tr>
<tr><td>xii.</td><td>Detailed analysis report of the composition of tailings generated from the process.</td><td>Detail analysis report of the composition of tailing generated from the process Annexure 9.</td><td>submitted</td></tr>
<tr><td>xiii.</td><td>Comparative table showing the present and proposed ore grade, recovery %, feed input into the spiral unit of beneficiation plant.</td><td>Comparative table showing the present and proposed ore grade, recovery%, feed input into the spiral unit of beneficiation plant is as below:
<table>
<tr><th>Attributes</th><th>Existing</th><th>Proposed</th></tr>
<tr><td>Production</td><td>18500 TPA</td><td>1,15,000 TPA</td></tr>
<tr><td>Feed Size to scrubber</td><td>+ 20mm to 100 mm</td><td>+ 20mm to 100 mm</td></tr>
<tr><td>Concentrate</td><td>- 1mm</td><td>- 1mm</td></tr>
<tr><td>Feed grade</td><td>35 - 38% Cr2O3</td><td>35 - 38% Cr2O3</td></tr>
<tr><td>Recovery</td><td>Cr2O3 (48-52%)</td><td>Cr2O3 (48-52%)</td></tr>
<tr><td>Recovery percentage</td><td>65%</td><td>70-75%</td></tr>
<tr><td>Feed to Spiral</td><td></td><td></td></tr>
<tr><td>No of working hours</td><td>8 hr</td><td>24 hr</td></tr>
<tr><td>No of shifts</td><td>1 shift</td><td>3 shifts</td></tr>
</table></td><td></td></tr>
<tr><td>xiv.</td><td>Details of Plant machinery and equipment installed along with their capacities.</td><td>Details of plant machinery and equipment installed along with their capacities given in Annexure 10.</td><td>submitted</td></tr>
<tr><td>xv.</td><td>A comparison statement of the present and proposed equipment's.</td><td>Comparison table of the present and proposed equipment details is given Annexure 10</td><td>submitted</td></tr>
<tr><td>xvi.</td><td>In the public hearing, there was complaint regarding discharge of muddy water into the nearby agricultural land.</td><td>Comprehensive action plan for runoff management to avoid muddy water discharging into the agricultural field.</td><td>submitted</td></tr>
</table>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	Hence the proponent shall submit comprehensive action plan to address the issue of runoff management to avoid muddy water discharging into agricultural fields.	**Annexure 11.**	
vii.	Proposal to construct a holding pond for storage of run-off during monsoon and discharge after treatment.	There will be construction of holding pond of 6064 cu.m capacity near the rain water harvesting pond for storage of runoff during monsoon and discharge after treatment.	submitted
viii.	Proposal for utilization of surface run-off and process effluent and maintaining Zero Liquid Discharge (ZLD).	The surface runoff will be stored in the rain water harvesting pond and after settling this will be utilized in the process. Detail surface water management plan is given in **Annexure 11**	submitted
xix.	Detailed proposal for Surface Runoff treatment System and Effluent Treatment Plant within the plant premises.	The surface runoff will be stored in the rain water harvesting pond and after settling this will be utilized in the process. Detail surface water management plan is given in **Annexure 11**	submitted

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

i) The waste water that will be generated from the tailings shall be treated in ETP wherein hexavalent Chromium shall be reduced to trivalent Chromium by dosing it with appropriate standard chemical following due technical procedure.

ii) The PP shall obtain NOC to use the Panchayat roads from the concerned BDO for transportation of both input materials and finished products including the responsibility of maintaining the road if damaged by such transportation.

iii) The big trees including the fruit bearing trees shall not be cut and if necessitated to relocate, the same may be de-rooted and replanted in green belt area/ alongside the boundary wall. If it becomes inevitable to cut the said trees, the same may be done only with due necessary permission from appropriate authority of forest department, Government of Odisha with necessary compensatory plantation/ afforestation as per the applicable rules/ laws.

ITEM NO. 06

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR M/S EVOS BUILDCON PVT. LTD. OF RESIDENTIAL PROJECT "EVOS AMANI" PLOT AREA17,342.50 SQUARE METER (4.285 ACRES), PROPOSED BUILT UP AREA – 92,774.928 SQM, DWELLING UNITS (414 NOS.), 4 BLOCKS/TOWERS AT CHANDAKA, TEHSIL - BHUBANESWAR, DISTRICT- KHURDA OF SRI KALINGA KESHARI RATH - EC

1. This proposal is for Environmental Clearance for M/s Evos Buildcon Pvt. Ltd. of Residential project "Evos Amani" Plot area17,342.50 Square Meter (4.285 Acre), Proposed Built up Area –

92,774.928 sqm, Dwelling Units (414 nos.), 4 blocks/Towers at Village - Chandaka, Tahasil-Bhubaneswar, District-Khurda of Sri Kalinga Keshari Rath.

2. **Category**: This project falls under Category "B", Project or Activity 8(a) Building and Construction projects as per EIA Notification dated 14th Sept, 2006 as its amendments.

3. **Location and connectivity:** The project site is located at Plot no. 2157, 2161/7460, 2161/7461, 2161/7462, 2161/7463, 2161/7464, 2161/7465, 2161/7466, 2161/7467, 2162, 2164, 2210, 2212, 2209/8684, 2209/4303 & 2209/4304, Khata No. 697, 603/5485, 603/5486, 603/5487.603/5488, 603/5489, 603/5490, 603/5491, 603/5492, 603/1253, 312, 603/825, 603/6905 & 603/564 in Village - Chandaka, Tahasil- Bhubaneswar in Khurda district, Odisha bounded by Latitude: 20°22'8.66"N and Longitude: 85°46'8.99"E. The project site is well connected by Chandaka Nandankanan Road. The nearest highway is NH-16 approx. 10.0 km in SSE direction. The nearest railway station is Bhubaneswar New Junction approx. 7.0 km in ENE direction from the project site and Biju Patnaik International Airport is at a distance of approx. 11.7 km in SE direction from the project site.

4. The Plot area measures 17,342.50 m^2 (4.285 Acre) and proposed Built-up area = 92,774.928 m^2.

5. **Area Statement:**

S. No.	PARTICULARS	AREA (sq.m.)
i)	Plot area as per possession	17,342.50
ii)	• 15 mt land left adjacent to existing drain	2,794.10
	• Road widening affected area	1,446.70
iii)	Net Plot Area	13,101.70
iv)	Permissible Ground coverage (@40% of the net plot area)	5,240.68
v)	Proposed Ground coverage (@39.99 % of the net plot area)	5,240.53
vi)	Permissible FAR (@5 of the Net plot area)	65,508.5
vii)	Proposed FAR (@ 4.88 of Net plot area)	63,954.44
viii)	Area of Public Washroom	19.426
ix)	ICT Room Built up Area and Security RM	20.872
x)	Non-FAR area	28,780.19
xi)	**Total Built-up Area (6+7 + 8 +9)**	**92,774.928**
xii)	Required Parking area (30% of FAR)	19,186.33
xiii)	Proposed Parking area (36.04 % of FAR)	23,048.551
xiv)	Landscape area (30.95%)	**4055.00**
xv)	Height of the Building (m)	83.30

6. **Water requirement**: The total water requirement approx. 373 KLD out of which domestic water requirement is 348 KLD. The total freshwater requirement is approx. 237 KLD which will be met from ground water augmented with rain water.

S. No.	Description	Occupancy	Rate of water demand (LPCD)		Total Water Requirement (KLD)		
A.	Domestic Water		Fresh	Flushing	Fresh	Flushing	Total
i)	Residents	2490	90	45	224.1	112.05	**336.15**

ii)	Staff (total)	159	25	20	3.975	3.18	7.155
iii)	Visitors	249	5	10	1.245	2.49	3.735
		2898			229.32	117.72	347.04
Total Domestic Water = 348 KLD							
B.	**Horticulture**		4055 m^2	4l/sqm	17 KLD		
C.	**Swimming Pool make-up**				7.5		
Grand Total (A+B+C) = 373KLD							

7. **Wastewater details:** It is expected that the project will generate approx. 302 KLD of wastewater. The wastewater will be treated in an onsite STP of 360 KL capacity. The treated effluent will be reused for Flushing and Horticulture. Surplus treated effluent will be discharged to external sewer 137KLD in Summer Season and 151KLD in Monsoon season with due permission of Development Authority.

Domestic Water Requirement	**348 KLD**
• Potable	230 KLD
• Flushing	118 KLD
Waste water [@80% fresh + 100% flushing)	184+118+=302 KLD
STP Capacity	**360**

8. **Rainwater harvesting details**: Total 2 nos. of Rainwater Collection Sump tanks will be provided for storage of rain water. Peak hourly rainfall has been considered as 140 mm/hr.
9. **Parking Proposed**: Total parking proposed is 731 ECS (583 ECS basement +148 ECS Stilt).
10. **Power Requirement:** The power supply will be supplied by TPCODL. The load requirement for the project will be 3,170 kVA. There is provision of 3 nos. of DG sets of 750 kVA capacity for power back up. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion.
11. **Solid waste generation**: The total solid waste generation will be 1,366 kg/day for the proposed project.

S. No.	Category	Norms (Kg/capita/day)	Waste generated (kg/day)
i)	Residents (2490)	@ 0.5 kg/day	1245
ii)	Staff (159)	@ 0.25 kg/day	40
iii)	Visitors (249)	@ 0.15 kg/day	38
iv)	Landscape waste (1.002acre)	@ 0.2 kg/acre/day	0.2
v)	STP sludge	Waste water x 0.35 x B.O.D difference/1000	43
		TOTAL SOLID WASTE	**1,366 kg/day**

12. **Greenbelt**: Total green area measures 4055.00 m^2 (30.95% of Net plot area). Evergreen tall and ornamental trees have been proposed to be planted inside the premises. No. of trees required = 1 tree/80 sq.m. of plot area =13,101.70 /80 = 163.87 say 164 Nos. Total no. of trees proposed = 200.

13. **Project cost:** Total estimated cost of the proposed project is INR 438.44 Cr. including land and development cost. EMP cost includes a capital cost of 54.13 lakhs and recurring cost of 20.2 lakhs.

TABLE: Cost of Environmental management Plan

COMPONENT	CAPITAL COST (INR LAKH)	RECURRING COST (INR LAKH/YR)
Sewage Treatment Plant	36	9
Rain Water Collection System	3	0.75
Solid Waste Management	2.73	0.683
Environmental Monitoring	0	9
Green Area/ Landscape Area	2.4	0.608
Others (Energy saving devices, miscellaneous)	10	0.15
Total	**54.13**	**20.2**

14. **Environment Consultant:** The Environment consultant **M/s Grass Roots Research & Creation India (P) Ltd., Noida** along with the proponent made a presentation on the proposal before the Committee on 22.09.2023.

15. The SEAC in its meeting held on dated **22-09-2023** recommended the following:

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

i) Land documents and Kissam of land.

ii) A natural nallah is passing beside the plot area. Submit the internal drainage map and connecting drain to public/natural drain with due permission/NOC for discharge of excess treated water and storm water into the natural drain from concerned authority. The project proponent also to confirm unhindered access to the proposed point of storm water / excess sewage treated water drain discharge from its project site.

iii) The Project Proponent shall revisit the water balance and have provision to reduce the discharge of treated water by increasing greenbelt.

iv) Surface runoff /storm water management.

v) Submit Reduced Level (RL) of ground water and place where STP is installed during summer and rainy season.

vi) Ensure that the differences between the reduced level of the bottom of rainwater harvesting pits and the reduced level of ground water during rainy season are adequate for effective recharge of collected rainwater and submit the report for the same.

vii) The PP shall increase the greenbelt from 20.15 % to 25% as proposed.

viii) The SEAC suggested the PP to explore the possibility of using synthetic sand for construction purposes.

ix) Details of PV Panel and solar generation from Solar power.

x) Traffic study report duly vetted by a reputed institution.

xi) Municipal Solid Waste Management practice and agency to take the municipal solid waste.

xii) Certificate from concerned DFO that the project is not located within the Eco-Sensitive Zone of Chandaka-Dampada Wildlife Sanctuary and Nandankanan Sanctuary.

xiii) Copy of permission from Airport Authority of India w.r.t. height of the building.

xiv) Document in support of land gifted for widening of road and access to land to be submitted.

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

a) Environmental settings of the project site.

b) Extent of construction activity if any.

c) Road connectivity to the project site.

d) Drainage network at the site.

e) Discharge point for discharge of treated water and distance of the discharge point from the project site.

f) Greenbelt area.

g) Any other issues including local issues

16. **The proposed site was visited by the sub-committee of SEAC on 29.09.2023. Following are the observations of the sub-committee.**

a) The Project site is located near Chandaka Thana adjacent to the Road. The Layout plans were explained by the Project proponent Team.

b) It was observed that there are no construction activities in the land. The land is connected to the main road in the North Side which is about 60 ft wide and it is learnt that this road width would be further expanded.

c) The PP explained that they have gifted a part of their land to Govt authority which is going in road expansion. Necessary document in support of the same may be given. There is a Nala adjacent to North-East and Eastern side of the land.

d) The PP explained about the drain network and explained that the excess storm water and treated water (if any) will be discharged to the Nala through pipeline passing by their land. PP may be asked to submit document/permission in support of drainage connection to the adjacent from the appropriate Govt. Authority in the side Nala. The PP will try to maximise using the treated water for plantation.

e) As the land is close the Nala, the PP needs to develop structural stable elevation to protect water ingression and land sliding in case of heavy rain.

f) The stack height to be maintained as per CPCB norm. All statutory clearance to be taken before project implementation.

g) All other points covered during presentation to be complied.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	Land documents and Kissam of land.	Land documents with details of kissam of	Land documents

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		Land is attached as **Annexure I.**	submitted
ii)	A natural nallah is passing beside the plot area. Submit the internal drainage map and connecting drain to public/natural drain with due permission/NOC for discharge of excess treated water and storm water into the natural drain from concerned authority. The project proponent also to confirm unhindered access to the proposed point of storm water / excess sewage treated water drain discharge from its project site.	Internal drainage connecting to the STP then excess treated water will be discharge into the nearest nalla. EIDP letter and layout for the same are enclosed as **Annexure -II** and **Annexure III.**	EIDP letter and layout of drainage submitted.
iii)	The Project Proponent shall revisit the water balance and have provision to reduce the discharge of treated water by increasing greenbelt.	We will do plantation in buffer area (2794.10m^2) abutting the drain. The surplus treated water from STP will be used for horticulture in the buffer area thereby reducing the quantity of discharge from 137 KLD to 126 KLD in summer season. Revised water balance Chart is enclosed as **Annexure -IV.**	Revised water balance shows 126KLD in summer season and 149KLD in monsoon season treated water discharge to drain.
iv)	Surface runoff /storm water management.	Surface runoff/storm water management plan is enclosed as **Annexure -V.**	submitted
v)	Submit Reduced Level (RL) of ground water and place where STP is installed during summer and rainy season.	RL of the RWH tanks bottom is 3.15 m bgl. Ground water table for pre monsoon is 4.99 m bgl and post monsoon is 4.2 m bgl.	-
vi)	Ensure that the differences between the reduced level of the bottom of rainwater harvesting pits and the reduced level of ground water during rainy season are adequate for effective recharge of collected rainwater and submit the report for the same.	RL of the RWH tanks bottom is 3.15 m bgl. Ground water table for pre monsoon is 4.99 m bgl and post monsoon is 4.2 m bgl	-
vii)	The PP shall increase the greenbelt from 20.15 % to 25% as proposed.	We have increased the green are: Total Green Belt Area provided = 5,672.00 sqm (43.38% of the net plot area). Total green belt provided on mother earth = 4,267.00 sqm (32.58 % of the Net Plot Area) Total green area provided on podium floor = 1,415.00 sqm (10.48 % of the Net Plot Area). Revised landscape plan is enclosed as **Annexure -VI.**	Revised Green Belt Area provided = 5,672.00 sqm (43.38% of the net plot area) i.e. green belt - 32.58 % + 10.48 % green area
viii)	The SEAC suggested the PP to explore the possibility of using synthetic sand for construction purposes.	We will explore the possibility of using synthetic sand for construction purposes.	-
ix)	Details of PV Panel and solar generation from Solar power.	The power supply will be supplied by TPCODL. The electrical load for the project will be 3.170 KVA. 5% (158.5 KVA) energy will be generated through Solar.	submitted

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		Solar energy saving calculations is enclosed as **Annexure-VII.**	
x)	Traffic study report duly vetted by a reputed institution.	Traffic study from KIIT Bhubaneswar is been enclosed as **Annexure-VIII.**	submitted
xi)	Municipal Solid Waste Management practice and agency to take the municipal solid waste.	Solid waste management plan is enclosed as **Annexure-IX.**	submitted
xii)	Certificate from concerned DFO that the project is not located within the Eco-Sensitive Zone of Chandaka-Dampada Wildlife Sanctuary and Nandankanan Sanctuary.	Certificate from concerned DFO that the project is not located within the Eco-Sensitive Zone of Chandaka- Dampada Wildlife Sanctuary is enclosed as **Annexure-X(A)** and copy of acknowledgment w.r.t Nandankanan Sanctuary is enclosed as **Annexure -X(B).**	submitted
xiii)	Copy of permission from Airport Authority of India w.r.t. height of the building.	NOC from AAI w.r.t height if building same is enclosed as **Annexure-XI.**	submitted
xiv)	Document in support of land gifted for widening of road and access to land to be submitted.	Document in support of land gifted for widening of road and access to land is enclosed as **Annexure-XII.**	submitted
SITE VISIT REPORT :			
1.	Environmental settings of the project site.	The project site is 1.75 km outside the ESZ of Chandaka Dampara Wildlife Sanctuary and outside the ESZ of Nandakanan Wildlife Sanctuary. Certificate from concerned DFO that the project is not located within the Eco-Sensitive Zone of Chandaka-Dampada wildlife Sanctuary is enclosed as Annexure-X (A) and copy of acknowledgment w.r.t Nandankanan Sanctuary is enclosed as Annexure-X(B). There is no other ecologically has been initiated at project site.	
2.	Extent of construction activity if any.	No construction activity has been initiated at project site.	
3.	Road connectivity to the project site.	The project site is well connected by Chandaka - Nandankanan Road. NH-16 is approx. 10.0 km is SSE direction.	
4.	Drainage network at the site.	Internal drainage connecting to the STP then excess treated water will be discharged into the nearest nalla. EIDP letter and Layout for the same are enclosed as **Annexure-II** and **Annexure-III.**	
5.	Discharge point for discharge of treated water and distance of the discharge point from the project site.	Internal drainage connecting to the STP then excess treated water will be discharged into the nearest nalla. EIDP letter and Layout for the same are enclosed as **Annexure-II** and **Annexure-III.**	
6.	Greenbelt area.	We have increased the green area: Total Green Belt Area provided = 5,672.00 sqm (43.38% of the net plot area). Total green belt provided on mother earth = 4,267,00 sqm (32.58% of the Net Plot Area) Total green area provided on podium floor =	

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		1,415.00 sqm (10.48% of the Net Plot Area), Landscape plan is enclosed as **Annexure-VI.**	
7.	Any other issues including local issues	No other issues.	

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

i) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.

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

iii) The proponent shall use solar energy at least to the tune of 5%of total power requirement as proposed.

iv) The proponent shall obtain permission from concerned Fire Safety Authority.

v) Trees located within the project area shall be transplanted to alongside the boundary green development area.

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

vii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.

viii) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

ix) **The Sub-Committee of SEAC during its visit observed that the land is close to the Nala, the PP needs to develop structural stable elevation to protect water ingression and land sliding in case of heavy rain.**

ITEM NO. 07

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR KANAKA SAND BED OVER AN AREA OF 31.211 HA. (SUBMITTED UNDER CLUSTER APPROACH WITH TOTAL LEASE AREA OF 35.43 HA.) IN VILLAGE KANAKA, TEHSIL PURUSHOTTAMPUR, DISTRICT GANJAM OF SRI KRUPASINDHU MUDULI – EC.

1. This proposal is for Environmental Clearance for Kanaka Sand Bed over an area of 31.211 ha. (Submitted under cluster approach with total lease area of 35.43 ha.) in village Kanaka, Tehsil Purushottampur, District Ganjam of Sri Krupasindhu Muduli.

2. **Category**: As Per EIA Notification, 2006 and subsequent amendments the project falls under Category B1 under Schedule of item of 1(a) - Mining of Minerals.
3. The Mining Lease has been granted vide letter no 1635 date 04/05/2022.The Successful Bidder is Sri Krupasindhu Muduli, S/o- Sri Jhuriya Muduli, At- Ramakrushna Nagar, 2nd Lane, Lochapada, Berhampur.
4. The Mining plan has been approved by the Deputy Director Geology, O/o The Joint Director of Geology (S.Z) on dated 29.03.2022.
5. The present proposal is a new mine shown as an identified source in the DSR of the Ganjam district. Sl No 01; Page No 63.
6. The Terms of Reference (TOR) has been granted by SEIAA; Odisha vide letter No. 5348/SEIAA Dated 02.09.2022.
7. **Location and connectivity**: The mine lease area is located in Village - Kanaka, Tahasil-Purushottampur, District - Ganjam, Odisha, is on Khata no- 472, Plot no- 865, 865/1012 & 785/1013 of Rushikulya river. The lease area is covered in the Survey of India Topo Sheet No – 74A/14 & 74A/15 and geo coordinates are Latitudes -19°30'10.47" N to 19°30'25.53" N and Longitudes – 84°51'09.09" E to 84°52'07.06" E. The Kisam of land is Nadi. The Nearest National Highway is NH-16 which is at a distance of approx 21.65 km in East direction. The Nearest State Highway is SH-32 which is at a distance of approx 1.40 km in East direction. The Nearest distance of approach road is 0.26 Km. The Nearest Airport is Biju Patnaik International Airport which is at a distance of approx 130.30 km towards NE direction. The Nearest Reserve Forest is Taratarini RF which is at a distance of 4.50 Km in ESE direction. Krishnagiri Reserve Forest, approx. 9.90 Km in NE. Ashuri Reserve Forest, approx. 7.70 Km in NNW. The Nearest Road Bridge is within the mining lease. The Nearest Rail Bridge is Ganjam Railway Bridge at a distance of 21.00 Km. The Nearest River Embankment is at a distance of 0.20 Km from the lease boundary. The Nearest Electric transmission line is running within the mining lease.
8. **Public hearing** was conducted on 06.01.2023 at Kanaka village, under Purushottampur Tahasil of Ganjam District, Odisha. Issues raised during public hearing are accidents due to sand transportation through village roads, transporting trucks shall be properly covered with tarpaulin to avoid spillage, water sprinkling for dust suppression, protection of Environment, Mining of sand shall be restricted in submerged or water flow area to avoid water pollution and deposit of silts leading to growth of shrubs at river bed. Budget allocated for Corporate Environmental Responsibility (CER) of Proposed Kanaka Sand Bed is Rs.160000 and for cluster is Rs.180000 and Budget for Environmental Protection of Proposed Kanaka Sand Bed is Rs.659000 as capital cost and Rs. 383000 as recurring cost. Budget for Environmental Protection for cluster is Rs.778400 as capital cost and Rs. 666000 as recurring cost.
9. **Total reserves, production and Method of Mining**: The total Geological reserves is 564525cum and Mineable Reserves is 347575 cum and the Proposed Production of the Project is 1,00,400 cum/year. The Method of Mining will be opencast Manual Method. Extraction and loading into truck & Tractor will be done by manual means. The transportation from Sand Quarry site to destination shall be achieved by dumper/tractor. The Proposed depth of mining is 2.5 Meters as per approved mining plan.

Year	Vol. of Sand in (m^3)
1st	100400
2nd	100400
3rd	100400
4th	100400
5th	100400
TOTAL	**502000**

10. **Replenishment study:** The Replenishment study was done during Pre- and Post-Monsoon Period (Nov 2022 & May 2022) by UAV/Drone survey (volumetric survey) method. After the Replenishment study it was found that 31,153.65 cum of sand have been proposed to be replenished annually.

11. **Baseline study:** Baseline Study conducted during March, 2022 to May, 2022.

a) **AIR ENVIRONMENT**

Ambient Air Quality Monitoring reveals that the minimum & maximum concentrations of PM10 for all the 8 AQ monitoring stations were found to be 51.59 µg/m3 at AQ7 and 94.69 µg/m3 at AQ1, respectively. The minimum & maximum concentrations of PM2.5 were found to be 22.65 µg/m3 at AQ4 and 56.05 µg/m3 at AQ1, respectively.

As far as the gaseous pollutants SO2 and NOx are concerned, the prescribed CPCB limit of 80µg/m3 for residential and rural areas has never surpassed at any station. The minimum & maximum concentrations of SO2 were found to be 5.36 µg/m3 at AQ4 & 26.12 µg/m3 at AQ1, respectively. The minimum & maximum concentrations of NOX were found to be 10.01 µg/m3 at AQ7 & 34.88 µg/m3 at AQ1, respectively.

b) **WATER ENVIRONMENT**

- **Ground water:** Analysis results of ground water reveal the following: -
  - pH varies from 7.16 at GW3 to 7.81 at GW4 during study period.
  - Total hardness varies from 112 mg/l at GW2 to 161 mg/l at GW1 during study period.
  - Total dissolved solids vary from 269 mg/l at GW5 to 344 mg/l at GW1 during study period.
- **Surface water**
  - The analysis results indicate that the pH ranges between 7.32 and 7.58.
  - Dissolved Oxygen (DO) was observed in the range of 6.2 to 7.1 mg/l against the minimum requirement of 4 mg/l.
  - BOD values were observed to be in the range of 10-12 mg/l.
  - The chlorides and Sulphates were found to be in the range.
  - Based on the results it is evident that most of the parameters of the samples comply with 'Category 'B' standards of CPCB indicating their suitability for Drinking water source after conventional treatment and disinfection.

c) **NOISE ENVIRONMENT**

Noise monitoring reveals that the maximum & minimum noise levels at day time were recorded as 59.1 Leq. dB (A) at NQ2 & 48.6 Leq. dB (A) at NQ4, respectively. The maximum & minimum noise levels at night time were found to be 43.6 dB (A) at NQ7& 38.2 dB (A) at NQ3.There are several other sources in the 10 km radius of study area, which contributes to the local noise level of the area. Traffic activities as well as activities in nearby villages and agricultural fields add to the ambient noise level of the area.

d) **SOIL ENVIRONMENT**

Samples collected from identified locations indicate the soil is sandy type and the pH value ranging from 6.56 to 6.98, which shows that the soil is alkaline in nature. Potassium is found to be from 50.8 mg/kg to 259.0 mg/kg. The water holding capacity is found in between 22.0 % to 28.8%.

12. **Water requirement:** Total Water Requirement is 7.97 ~ 8.0 KLD for the Proposed Project and 9.14 ~ 9.0 KLD for the Cluster Area.
13. **Greenbelt:** 3120 Plants are proposed to be planted for the Proposed Site.
14. **Manpower:** 89 nos of Manpower for the Proposed Project & 145 Manpower for the Cluster Area is required for the proposed project.
15. **Project cost:** Estimated cost of the proposed Project is Rs 80 Lakhs. EMP Cost includes Capital cost of 6.59 Lakhs and Recurring cost of 3.83 Lakhs. For Cluster Area EMP Cost includes Capital cost of Rs 7.784 Lakhs and Recurring cost of 6.66 Lakhs.

Sl. No.	Measures	Capital Cost (In Rs.)	Recurring Cost (In Rs.)
i)	Pollution Control Dust Suppression /Water Sprinkling	--	1,00,000
ii)	Pollution Monitoring i) Air pollution ii) Water pollution iii) Soil Pollution iv) Noise Pollution	--	50,000 40,000 20,000 10,000
iii)	Green belt development	6,24,000	1,00,000
iv)	Maintenance of haul road	35,000	63,000
Total		**6,59,000**	**3,83,000**

For cluster

Sl. No.	Measures	Capital Cost (In Rs.)	Recurring Cost (In Rs.)
i)	Pollution Control Dust Suppression /Water Sprinkling	--	2,00,000
ii)	Pollution Monitoring i) Air pollution ii) Water pollution iii) Soil Pollution iv) Noise Pollution	--	1,00,000 80,000 40,000 20,000
iii)	Green belt development	7,08,400	1,00,000
iv)	Maintenance of haul road	70,000	1,26,000
	Total	**7,78,400**	**6,66,000**

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

27. The SEAC in its meeting held on dated on **22-09-2023** decided to take the decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	Nearest Electric transmission line is running within the mining lease. Thus, submit details and dimension of Electric high transmission tower line.	The location detail and detail dimension of Electric HT line has submitted for your reference as **Annexure-I.**	-
ii)	Submit actual area after excluding area from no mining zone for Bridge, electric transmission line and water channel present in lease area.	Area under no mining zone – 13.698Ha. Area under water channels - 8.630Ha. Actual area available for mining – 8.883Ha. The total lease area of the proposed quarry is 31.211 Ha. The common safest workable area for mining during Replenishment Study is 5.743 Ha.	-
iii)	Submit separate EMP budget for each quarry in the cluster for both Kanaka Sand Bed and Bhimpur Sand Bed.	The separate EMP budget for each quarry in the cluster for both Kanaka Sand Bed and Bhimpur Sand Bed has submitted for your reference as **Annexure-II.**	submitted

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s P & M Solution, Noida** 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 Kanaka Sand Bed (under cluster approach) without referring to SEAC with stipulated conditions as per **Annexure – G** 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) Previous production details of individual lease duly certified by Tahasildar.

   vi) Replenishment Study Report of individual lease.

b) Following specific conditions may be stipulated in individual Environmental Clearance.

   i) Amended EIA Notification dated 25th July, 2018, Guidelines for sustainable sand mining, 2016 and Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India shall be adhered to in execution of Mining as per **Annexure – H.**

   ii) Sand extraction shall be limited to quantity and depth as per replenishment study report. Regular replenishment study as per guidelines to be conducted and report to be submitted.

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

Proceedings of the SEAC meeting held on 28.12.2023 (Old proposals – compliance received)

JNayak
Environmental Scientist, SEAC

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. 08

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR KANDARSINGI SAND QUARRY OVER AREA OF 12.106 HA. FOR PRODUCTION OF 7,250 CUM/ANNUM AT KHATA NO.- 567, PLOT NO 3222, 3119,3112,2794 & 2268, VILLAGE KANDARSINGI, TAHASIL- JAGANNATHPRASAD, DISTRICT- GANJAM OF SRI SAMIR TARAI - EC

a) This proposal is for Environmental Clearance of Kandarsingi Sand Quarry over area of 12.106 ha. for production of 7,250 cum/annum at Khata No.- 567, Plot No 3222, 3119,3112,2794 & 2268, village Kandarsingi, Tahasil- Jagannathprasad, District- Ganjam of Sri Samir Tarai.

b) **Category:** As per EIA notification, 2006 and subsequent amendments, the project is coming under B1 Category under Schedule of item 1(a)-Mining of minerals.

c) The mining plan for the ML area has been approved by the Dy. Directorate of Geology, Directorate of Geology, Bhubaneswar Odisha vide Memo no 1630/DG dated 03.02.2020.

d) Letter of Intent has been issued by Tahasildar, Jagannathprasad to Successful Bidder Sri Samir Tarai vide letter no.3199 dated 17.09.2019.

e) **TOR Details:** Terms of Reference (TOR) was granted by SEIAA, Odisha vide letter no 3016/SEIAA dated: 28.09.2021.

f) **Public hearing details:** Public hearing has been conducted on 21.10.2022 at adjacent to Prathmika Vidyalaya, Kandarsingi (plot no- 1160 kata no- 338) under Jagannathprasad Tahasil in Ganjam District of Odisha under the supervision of Addl. District Magistrate, Ganjam. Issues raised during public hearing are air pollution due to transport, destruction of forest due to mining, water pollution due to mining and transportation, damage of river embankment and crop loss, movement of transportation vehicles in front of school will lead to problem of commuting by school children and women at bathing ghats are facing problems due to frequent movement of transportation vehicles. Budget allocated towards public hearing issues is mainly for Environment protection & pollution control and for it, about Rs. 4.7 lakh as capital cost & 3.8 lakhs/annum as recurring cost has been allocated in the EMP budget. CER budget allocated is Rs.80000.

g) **Location and connectivity:** The total lease area of quarry is about an area of 12.106 Ha. / 29.915 Acre in Burha River over Khata no.-567 and Plot no.- 3222, 3119, 3112, 2794 & 2268 situated in village - Kandarsingi, Tahasil- Jagannathprasad, Dist.- Ganjam, Odisha. The lease is located in survey of India Topo Sheet No. E45A9, E45A13, F45S12, F45S16, bounded by Latitude: 19°54' 16.19" N to 19°54' 36.46" N, Longitude: 84°43'18.57" E to 84°43'42.15" E bearing Khata no -567 and Plot No 3222,3119,3112,2794 & 2268. The highest elevation of the river sand bed is 82 mRL and the lowest elevation of the lease area is 79 mRL. The Mine Lease area is approx. 67kms of aerial distance from the district headquarters Chatrapur. The proposed ML area can be approached by SH 21 road which is in Westside from ML area.

- Nearest Road Bridge, river embankment, and electric transmission line pole is 0.28km (NE), 0.28km (NE), and 1.50 km (SE) respectively. The project site falls under seismic zone II which is a least active zone (MSK VIII).

h) There are no National parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) with in 10 kms radius of Mine lease area.

i) **Drainage**: The drainage pattern in the study area is from East to West. The proposed project does not impact natural drainage pattern of the area.

j) **Baseline details:** Baseline data collection through field survey has been commenced in pre monsoon season i.e., March to May, 2021.

a) Ambient air quality: The major contributors of air emissions are industrial emission, vehicular movement combustion of bio-fuel and other man made sources. During the study period the concentration of PM10 varies from 34-69 µg/m3 .Concentration of PM2.5 varies from 17.1 µg/m3 to 32.4 µg/m3 .The concentration of SO2 varies from 5.1 to7.5 µg/m3 and NOx concentrations vary from 7.41 to 16.2µg/m3 . From the ambient air quality monitoring carried out for three months (March-May 2021) of the study period shows that the critical pollutants like PM10, SOx and NOx are well within the permissible limits.

b) Noise quality: The mine lease area is River Bed without any human interference. So the present noise level of the area is lower comparative with the village. The noise level as measured in the core zone is 51.8dB (A) &53.8 dB (A) respectively. The maximum & minimum noise levels at night time were found to be 36.2dB (A) &39.1 dB (A) respectively. The noise level is below the standard as per the Noise Rule, 2000 for rural area. The lease area and all the sampling points are comes under rural area.

c) Ground water quality: The analysis results indicate that the pH ranges between 7.35 and 7.58. Total Dissolved Solids (TDS) varies from 278 to 410mg/l. Total Hardness varies from 162 to 236 mg/l. Fluoride varies from 0.2 to 0.4mg/l. The chlorides and Sulphates were found to be in the range. From the above 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 is free from microscopic organism and do not contain any pollutant which would be hazardous for human, animal or crop health, So it is fit for drinking purpose

d) Surface water -The pH ranged from 7.18 to 7.64. Dissolved Oxygen (DO) ranged from 6.2 to 6.9 mg/l. BOD ranged from <2.0 to4.6 mg/L. COD ranged from 10 to 28mg/l.

e) Soil quality- The soil analysis result shows that, the pH value ranges from 7.62 to 7.84 with organic carbon 0.52 to 0.62%. The concentration of Nitrogen, Phosphates & Potassium has been found to be in good amount in the soil samples. Project site and in the study area is sandy soil as site is located at the river bed. Results of soil sampling analysis showed best for fertility. From the soil analysis result it can be concluded that the soil of the area is highly fertile and suitable for agricultural purpose

k) **Replenishment study**: For the said project replenishment study has been done by UAV/Drone survey (volumetric survey) method. In this case, replenishment study requires three surveys.

The first survey has been carried out in the month of May/June before closing of mines for monsoon season. The second survey is carried out in the Month of Nov/Dec after the monsoon to know the quantum of material deposited / replenished in the mining lease. The estimated average erosion thickness is computed within the entire lease area and common safe workable area respectively. However, the volume of sand available after post monsoon is around 73083.12 m^3, which can be treated as safe extractable within the framework of the study after arrival of river level as it was in pre monsoon. Further volume of sand also computed, which can be extracted as on date (Pre monsoon survey date) is 166098 m^3. As it is a new mine no excavation has done in this year. So, total minable reserve available for mining is 73083.12 + 166098 = 239,181.12 m^3 whereas, approved production capacity for the year is 7250 m^3.

l) **Reserves and total production**: The proposed production capacity is 7,250 cum/annum (36250cum for 5 years) for a period of Concession of 5 years. As estimated, the geological reserves and mineable reserves of the proposed project is 242120 cum and 166098 cum respectively.

Sl. No.	Year	Production in m3
1.	1st	7250
2.	2nd	7250
3.	3rd	7250
4.	4th	7250
5.	5th	7250
Total		**36250**

m) **Mining method**: The sand will be excavated by open cast manual method. Since the depth of sand deposit is 2m, handpicks, Spade, Hand shovel and manually loaded into trucks/tractors and dispatched. The sand will be collected in dry river bed in the lease area. A 7.5m wide safety barrier will be left undisturbed around the mine lease boundary.

n) **Water requirement**: The daily fresh water requirement is 2.0 KLD. Water will be obtained from nearby village.

Activity	Calculation	Round off Figure in KLD
Drinking	@ 10 lpcd per labor 10 lt*22 labors/1000= 0.22 or 0.3 KLD	0.3
Dust Suppression	Approach road length= 550m, road width= 6m, water required= 0.5 lt twice a day 100 m*6m*0.5 *2 times/1000= 0.6 KLD	0.6
Plantation	Total sapling to be planted= 500 (during plan period), water required= 2lt/plant 500*2 lts/1000= 1.0 KLD	1.0
	Total	**1.9 or 2.0 KLD**

o) **Greenbelt**: About 500 saplings will be planted during first & second year of plan period. Also plantation will be carried out in the available free government areas with in the study area.

Year	Total No. of plants	No of plants along both side of approach road	No. of plants in buffer zone consulting local authorities	Location	Species
1st	250	50	200	Approach road – 100 m, 100 nos. along both sides of road at spacing of 2 m. Village area – 400 nos. In village area like school premises, Aangawadi, Panchayat bhavan	Guava, mango, Jammun, jhaun, neem etc.
2nd	250	50	200		
3rd	Maintenance	Maintenance	Maintenance		
4th					
5th					
Total	**500**	**100**	**400**		

p) **Traffic study:** Traffic study has been carried out at village road & SH 21. From the traffic analysis it is observed that V/C ratio will change from 0.134 to 0.136 at Village road & will remain same i.e, 0.179 at SH-21 with LOS remain "A" i.e "Excellent". So the additional load on the carrying capacity will be affected to a minimum level.

q) **Employment potential:** Total requirement of labours and other supervisory manpower will be around 22persons during the mining period. The project will also provide some 5-10 people indirect employment to the people of nearby area of mine site.

r) **Project Cost:** Total Project Cost is estimated to be 40 lakh for the proposed project. About Rs. 4.7 lakh as capital cost & Rs. 3.8 lakhs/annum as recurring cost has been allocated in the EMP budget which will be used for Environment protection & pollution control. The CER budget will be 2% of total project cost of Rs. 40 lakh i.e, Rs.0.8lakh.

S.No	Particulars	Amount per Annum (Lakh)	
		Capital Cost	Recurring Cost
i)	Dust suppression	2.0	0.5
ii)	Plantation and its protection (@ Rs. 400/sapling- including fencing)	2.0	1.0 (for Maintenance @ Rs 300/- per day)
iii)	Personal Protective Equipment (@ Rs. 2000/PPE kit)	0.5	0.5
iv)	Environmental Monitoring (Air, water, soil, noise)	--	1.2 (0.5 lakh, 0.4 lakh, 0.20 lakh, 0.10 lakh)
v)	Haul road construction/ maintenance	0.2 (@ Rs 2.0 Lakh/km)	0.6(@ Rs. 300*200 days*1 labor)
	Total	**4.7**	**3.8**

Budget for occupational health

Particulars	Recurring Cost per year (Rs.)
For routine checkup	44,000
Medical aid as per ESI Scheme	1,10,000
Training	50,000
Total	**2,04,000**

Sl. No.	Activity	Capital Cost (in Rs.) /annum
i)	Distribution of educational kits, books & sports kits to the students of village Kandarsingi	40,000
ii)	Financial aid for medical camp for villagers in Kandarsingi village.	40,000
TOTAL		**80,000**

s) The Environment consultant **M/s Atmos Sustainable Solutions Pvt. Ltd.** prepared the EIA report and **P and M Solution, Noida** along with the proponent made a presentation on the proposal before the Committee.

t) The SEAC in its meeting held on dated **24-04-2023** decided to take the decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
a)	Revised KML file excluding the concave areas of the river and marking the pocket areas of the lease proposed for mining of sand.	Revised KML file excluding the concave areas of the river is mailed and a map showing the pocket areas of the lease proposed for mining of sand is attached as **Annexure-I.**	Revised maps showing pocket areas proposed for mining with google map.
b)	Mark the mineable area, safety zone and area taken for the replenishment study in those pocket areas.	Mineable area is marked by leaving 500mtr safety distance from the nearest bridge as shown in the Mining plan and for replenishment study report the whole lease was taken. A map showing safety zone and mineable area is attached as **Annexure-II.**	-
c)	Annual replenishment sand in pocket areas and submit revised replenishment study report.	Attached as **Annexure - III.**	Estimated, Replenishment Mineable reserve of all pocket areas is = 30162.9 m^3 ≈ 30163 m^3
d)	Details of transport route for sand transportation since mining is proposed in pocket areas.	Attached as **Annexure - IV.**	Google layout submitted showing the transport route.

Considering the information furnished and the presentation made by the consultant, **M/s P and M Solution, Noida,** along with the project proponent, the SEAC recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions as per **Annexure – G** and following specific conditions:

a) Amended EIA Notification dated 25th July, 2018, Guidelines for sustainable sand mining, 2016 and Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India shall be adhered to in execution of Mining as per **Annexure – H.**

b) Sand extraction shall be limited to quantity and depth as per replenishment study report. Regular replenishment study as per guidelines to be conducted and report to be submitted.

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

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

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

f) No natural water course shall be obstructed or diverted for the purpose of sand mining.

g) As per Sand Sustainable Guidelines, 2020, the proponent shall ensure that no mining should be allowed below water level.

ITEM NO. 09

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. ARCHID BUILDERS PRIVATE LIMITED FOR RESIDENTIAL CUM COMMERCIAL PROJECT TOTAL LAND AREA IS 4,977.6 M2 (1.23 ACRES) AND THE TOTAL PROPOSED BUILT-UP AREA IS 32,367.0 M2 LOCATED AT MOUZA- SHANKARPUR AND AIGANIA, TEHSIL- BHUBANESWAR, DISTRICT- KHURDA OF SRI BANDAN MOHANTY - EC

1. This proposal is for Environmental Clearance of M/s. Archid Builders Private Limited for Residential cum Commercial Project total land area is 4,977.6 m2 (1.23 acres) and the total proposed built-up area is 32,367.0 m^2 located at Mouza- Shankarpur and Aigania, Tehsil- Bhubaneswar, District- Khurda of Sri Bandan Mohanty.
2. **Category:** The project falls under category "B" or activity 8 (a)-Building and Construction project under EIA Notificationdated 14th September 2006 as amended from time to time.
3. **Location and connectivity:** The project site is located at Mouza- Shankarpur and Aigania, Tehsil- Bhubaneswar, District- Khurda, Odisha bounded by Latitude: 20°14'52.53"N Longitude: 85°46'20.31"E. Total land area is 4,977.6 m^2 (1.23 acres) and the total proposed built-up area is 32,367.0m^2. The connecting road is Shreekhetra Residency Road towards West side of the project site. The Nearest Highway is NH-16 which is 0.2 km in South direction from the project site, NH-316 which is 9.4 km in East direction from the project site. The nearest Railway Station is Sarkantra Railway Station is about 3.5 km (SE) away from the project site. Biju Patnaik International Airport is at 3.5 km (E) from project site.
4. **Project Area details:** The total plot area is 4,977.6 sqm. Total Built up area for the project will be 32,367.0 sqm. The total population of project after proposed will be 1,444 persons.

S. No.	Particulars	Area (m^2)
1.	Total Plot Area	4977.6
2.	Permissible Ground Coverage (@ 40% of the plot area)	1991.04
3.	Proposed Ground Coverage (@34.19 % of the plot area)	1701.84
4.	Permissible FAR (@5.0)	24,888
5.	Total Proposed FAR (@4.9486)	**24,632**
	Commercial FAR (@4.09% of total FAR)	1008
	Residential FAR (@95.91% of total FAR)	23,624

S. No.	Particulars	Area (m^2)
6.	Non-FAR Area	7735
	Fire Tower	1152
	Parking (Basement Parking = 5456.0 m^2 + Stilt parking = 1127.0 m^2)	6583
7.	**Built-up Area (5 + 6)**	**32,367**
8.	Landscape Area (@ 20%)	995.52
9.	Maximum Height of the Building (m)	62.4 m

5. **Water Requirement:** The total water requirement for the project will be approx. 138 KLD out of which domestic water demand is 133 KLD. The freshwater requirement will be 87 KLD. It is expected that the project will generate approx. 116 KLD of wastewater. The wastewater will be treated in onsite STP of 140 KLD capacity. The treated effluent will be reused for flushing & horticulture. Surplus treated effluent will be discharged to external sewer.

S. No.	Description	Occupancy	Rate of water demand (lpcd)		Total Water Requirement (KLD)		
A.	**Domestic Water**		**Fresh**	**Flushing**	**Fresh**	**Flushing**	**Total**
	• Residents	899	90	45	80.91	40.46	**121.37**
	• Staff (Maintenance, Commercial Stores)	127	25	20	3.18	2.54	**5.72**
	• Visitors	418	5	10	2.09	4.18	**6.27**
	Total	**1444**			**86 KLD**	**47 KLD**	**133 KLD**
Total Domestic Water = 133 KLD							
B.	**Swimming Pool**	--			**1 KLD**		
C.	**Horticulture**	995.52 m^2	4 l/sqm		**4 KLD**		
Grand Total (A + B + C) = 138 KLD							

Domestic Water Requirement	**133 KLD**
• Fresh	86 KLD
• Flushing	47 KLD
Wastewater [@80% fresh + 100% flushing]	68.8 + 47 = **116 KLD**
STP Capacity (20% higher than waste water)	**140 KLD**

6. **Rainwater harvesting details:** 1 Rainwater tank will be provided considering peak hourly rainfall has been considered as 160 mm/hr.
7. **Parking Proposed:** Total parking proposed for the project is 212 ECS.
8. **Power Requirement and solar details:** The power supply will be supplied by TPCODL. The load requirement for the project will be 1400 kVA. There is provision of 3 nos. of DG sets of 300 kVA

- capacity for power back up. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion.

S. No.	DESCRIPTION	SAVINGS (kVA)
1.	Solar based Lighting will be done in the common areas, stair cases, landscape areas, signage, entry gates and boundary walls etc. (5% from total power load) Norms for Rooftop PV systems Installation: Solar power back of a minimum generation capacity of 5% of the connected load (OR) 20 Watts/sq.feet on available roof space, whichever is less.	70 kVA
2.	LEDs will be used in all dwelling units (@4%).	56 kVA
3.	Outdoor and common are lighting shall be LED (@1%).	14 kVA
Total Energy Saved		**140 kVA**
Total Power load = 1,400kVA **Energy saved through various provisions = 140 kVA** **TOTAL ENERGY SAVING = 10%**		

9. **Solid waste generation:** The total solid waste generation will be 560 kg/day.

S. No.	Description	Occupancy	Waste Generated (kg/capita/day)	Waste Generated (kg/day)
1.	**Domestic Solid Waste**			
	• Residents	899	0.5	449.5
	• Staff (Maintenance, Commercial Stores)	127	0.25	31.75
	• Visitors	418	0.15	62.7
2.	Horticultural Waste (0.25 acre)		@ 0.2 kg/acre/day	0.05
3.	STP Sludge		Wastewater x 0.35 x B.O.D difference/1000	15.83
Total Solid Waste Generation = 560 kg/day				

10. **Greenbelt:** Total green area measures 995.52 m^2 (20% of Net plot area). Evergreen tall and ornamental trees have been proposed to be planted inside the premises. No. of trees required = 1 tree/80 sq.m. of plot area = 4977.6/80 = 62 Nos . Total no. of trees proposed = 65.

11. **Project cost:** Estimated cost of the project is INR 100 Cr. including land and development cost. EMP cost includes a capital cost of 162.5 lakhs and recurring cost of 26.5 lakhs.

COMPONENT	CAPITAL COST (INR LAKH)	RECURRING COST (INR LAKH/YR)
Sewage Treatment Plant	754.70	10
Rain Water Harvesting System	20	4
Solid Waste Management	7.5	0.50
Environmental Monitoring	0	9.0

COMPONENT	CAPITAL COST (INR LAKH)	RECURRING COST (INR LAKH/YR)
Green Area/ Landscape Area	20	0.5
Others (Energy saving devices, miscellaneous)	40	2.5
Total	**162.5**	**26.5**

12. **Environment Consultant**: The environment consultant **M/s Grass Roots Research & Creation India (P) Ltd., Noida** along with the proponent made a presentation on the proposal before the Committee on 02.12.2023.

13. The SEAC recommended the following:

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

i) Copy of permission for discharge of treated waste water to the nearby drain.

ii) Permission from Water Resource department, Govt. of Odisha for usage of ground water.

iii) The project proponent shall increase the number of Rainwater harvesting tanks.

iv) The project proponent shall furnish an undertaking that commercial unit shall only be used for residents purpose.

v) Structural stability certificate vetted by institute of repute.

vi) Traffic Study report to be vetted by institute of repute.

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

h) Environmental settings of the project site.

i) Extent of construction activity.

j) Road connectivity to the project site.

k) Drainage network at the site.

l) Discharge point for discharge of treated water and distance of the discharge point from the project site.

m) Greenbelt area.

n) Any other issues including local issues

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
iv)	Copy of permission for discharge of treated waste water to the nearby drain.	We have obtained permission from PH Division for the discharge of surplus treated water from STP and copy of same is attached as **Annexure-I**.	NOC letter from the Superintending Engineer, Public Health Division regarding own water supply and sewerage connection has been issued infavour of PP.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
v)	Permission from Water Resource department, Govt. of Odisha for usage of ground water.	We have obtained permission from CGWA for the abstraction of Groundwater and the copy of same is attached as **Annexure-II.**	NOC for 86.42KLD has been taken from CGWA and its valid till 2028.
vi)	The project proponent shall increase the number of Rainwater harvesting tanks.	The runoff from green and paved areas is not proposed to be collected as it has more turbidity and TSS. Even, if we provide collection tanks for paved and green area, we will have to compromise on green area and it will reduce to below 20%. Therefore, we have decided to discharge the runoff from green and paved area to external drain for which permission has been received from the department. Discharge permission is enclosed as **Annexure-III.**	Permission of disposal of storm water into natural drainage channel has been granted by BMC.
vii)	The project proponent shall furnish an undertaking that commercial unit shall only be used for residents purpose.	We confirm that the commercial units will only be used as Residential purposes. An undertaking for the same is attached as **Annexure-IV.**	Undertaking submitted.
viii)	Structural stability certificate vetted by institute of repute.	The structural stability has been vetted by IIT, Guwahati. Copy of Structural Stability certificate is attached as **Annexure-V.**	Copy of Structural Stability certificate has submitted.
ix)	Traffic Study report to be vetted by institute of repute.	The traffic study has been vetted by reputed institute i.e. KIIT, Bhubaneswar, Odisha. Copy of same is attached as **Annexure-VI.**	As per the traffic study report LOS is "B" with or without project.
Reply to Site visit points			
1.	Environmental settings of the project site.	ESZ boundary of Chandaka Dampara WLS is at a distance of 4 km towards North direction from the project site. DFO NOCs w.r.t. Chandaka Dampara WLS are enclosed as **Annexure– VII.** There is no other ecologically sensitive location near the project site.	
2.	Extent of construction activity.	No construction activity has been initiated at project site.	
3.	Road connectivity to the project site.	The connecting road is Shreekhetra Residency Road towards West side of the project site. The Nearest Highway is NH-16 which is 0.2 km in South direction from the project site, NH-316 which is 9.4 km in East direction from the project site.	
4.	Drainage network at the site.	Drainage plan is attached as **Annexure-VIII.**	
5.	Discharge point for discharge of treated water and distance of the discharge point from the project site.	Plan showing discharge point for the discharge of surplus treated water from STP is attached as **Annexure-VIII.** The distance of the discharge point from the project site is 15 m.	
6.	Greenbelt area.	Total green area measures 995.52 m2 i.e. 20.0% of the plot area.	

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
7.	Any other issues including local issues	No other issues.	

15. The proposed site was visited by the sub-committee of SEAC on **23.12.2023**. Following are the observations of the sub-committee.

    a) The Project site is located at Shankarpur, Bhubaneswar. PP was present along with consultant and explained the layout. It is a residential-cum-commercial project.

    b) There is no construction at present, it is empty land. The land is surrounded by residential houses. Care for stack discharge to be taken with all other safety precautions.

    c) As there is no drain in front of the site, the PP needs to obtained permission from the authority for construction of drain at road side and discharge of excess treated water and storm water to the nearby drain at a distance of 50 mt away along with drainage plan approved by the authority.

    d) PP was advised to increase the RWH pit from one to two to take care of storm water during excess rain.

    e) As it is also commercial, PP needs to submit revised layout with separate entry and exit for residential and commercial, also separate parking details for both residential and commercial along with breakup of % of parking for commercial, residential and visitors. All to be marked in the revised layout and submitted.

    f) All other points asked during presentation to be complied.

16. As per site visit report documents raised are:

    i) As there is no drain in front of the site, the PP needs to obtained permission from the authority for construction of drain at road side and discharge of excess treated water and storm water to the nearby drain at a distance of 50 mt away along with drainage plan approved by the authority. – As per ADS submitted NOC from BMC submitted to construct own drain at road side and discharge of excess treated water

    ii) PP was advised to increase the RWH pit from one to two to take care of storm water during excess rain - As per ADS submitted permission taken to discharge excess storm water into natural drainage.

    iii) As it is also commercial, PP needs to submit revised layout with separate entry and exit for residential and commercial, also separate parking details for both residential and commercial along with breakup of % of parking for commercial, residential and visitors. All to be marked in the revised layout and submitted. – As per ADS submitted Undertaking has been submitted by PP that commercial unit will be used by residents only.

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

    a) From ADS, the revised layout asked for submission showing separate entry & exit as well as parking for residential and commercial is not submitted. As the width facing road is less, this is essential for safety of residents.

    b) From the permission letter for connection to drain, it is stated that, there is no drain available to site and permission could be considered once the same is available. Under this situation, the PP

need to provide the alternate solution (documentary support) of discharge of excess treated effluents as there is no nearby drain point. This is required before grant of EC.

c) Status of permission from Water Resources department, Odisha for use of ground water for commercial use only.

ITEM NO. 10

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. ARCHID BUILDERS PRIVATE LIMITED FOR COMMERCIAL CUM HOTEL BUILDING PROJECT. TOTAL LAND AREA IS 5,301.381 SQ.M (1.31 ACRES) AND THE TOTAL PROPOSED BUILT-UP AREA IS 30,390.0 SQ.M AT MOUZA- PAHAL, TEHSIL- BHUBANESWAR, DISTRICT- KHURDA OF SRI BANDAN MOHANTY - EC

1. This proposal is for Environmental Clearance of M/s. Archid Builders Private Limited for Commercial cum Hotel Building project. The total land area is 5,301.381 sq.m (1.31 acres) and the total proposed built-up area is 30,390.0 sq.m at Mouza- Pahal, Tehsil- Bhubaneswar, District- Khurda of Sri Bandan Mohanty.
2. **Category**: The project falls under category "B" or activity 8 (a)-Building & Construction Project under EIA Notification dated 14th September 2006 as amended from time to time.
3. **Location and connectivity:** M/s Archid Builders Pvt. Ltd. proposes a Commercial cum Hotel Project (2B + G + 14). The project site is located at Rev. Plot No - 284, Khata No - 209 and Rev. Plot No- 286, Khata No - 352/1438, Mouza - Pahal, Tehsil- Bhubaneswar, District- Khurda, Odisha on a land measuring 1.31 acres or 5,301.381 m^2 bounded by Latitude 20°20'24.94"N and Longitude 85°53'02.41"E. The connecting road is N. H. Sub Road towards front side of the project site. The Nearest Highway is SH-16 which is approx. 20 m in west direction from the project site, NH 316A/SH 60 is approx. 1.9 km (NE) away, NH-316 is approx. 3.7 km (S) away from the project site. The nearest Railway Station is Patia P. H. Railway Station is about 4.4 km (W) away from the project site. Biju Patnaik International Airport is at 11.3 km (SW) from project site.
4. **Project Area statement**: The total plot area is 5,301.381 sqm. Total Built up area for the project will be 630,390.0 sqm. The total population of project after proposed will be 2,723 persons.

S. No.	Particulars	Area (m^2)
1.	Total Plot Area	5301.381
	Area affected by NH widening	121.18
	Net Plot Area	5180.201
2.	Permissible Ground Coverage (@40 % of the net plot area)	2072.08
3.	Proposed Ground Coverage (@34.95 % of the plot area)	1810.48
4.	Permissible FAR (@7.0 of the net plot area)	36,261.407
5.	Proposed FAR (@3.745 of the net plot area)	19,402.0
6.	Non FAR Area (Fire Tower, Basements, Services/AHU)	10,988.0
7.	**Built-up Area (5+6)**	**30,390.0**

Proceedings of the SEAC meeting held on 28.12.2023 (Old proposals – compliance received)

JNayak
Environmental Scientist, SEAC

10. **Solid Waste Generation** - The total solid waste generation will be 564 kg/day.

S. No.	Description	Occupancy	Norms (kg/capita/day)	Waste Generated (kg/day)
1.	**Domestic Solid Waste:**			
	Hotel Guest Rooms	188	0.5	94
	Hotel Staff	141	0.25	35.25
	Visitors (Restaurant & Banquet Hall)	1,915	0.15	287.25
	Staff (Restaurant & Banquet Hall)	479	0. 25	119.75
2.	Horticultural Waste (0.14 acre)		@ 0.2 kg/acre/day	0.028
3.	STP Sludge		Sludge generated x 0.35 x B.O.D difference/1000	27.44
Total Solid Waste Generation= 564 kg/day				

11. **Greenbelt**: Total green area measures 556.7 m^2 i.e. 10.7 % of the net plot area. Evergreen tall and ornamental trees have been proposed to be planted inside the premises. No. of trees required = 1 tree/80 sq.m. of plot area =5301.381/80 = 66 Nos. **Total no. of trees proposed = 70 trees.**

12. **Project cost**: Total Project cost is INR 87.50 Cr. Including land and development cost. EMP cost includes capital cost of Rs.38.39 lakhs and recurring cost of 18.72 lakhs.

COMPONENT	CAPITAL COST (INR LAKH)	RECURRING COST (INR LAKH/YR)
Sewage Treatment Plant	24.5	6
Rain Water Harvesting System	3	1
Solid Waste Management	0.56	0.14
Environmental Monitoring	-	9
Green Area/ Landscape Area	0.33	0.08
Others (Energy saving devices, miscellaneous)	10	2.5
Total	**38.39**	**18.72**

13. **Environment Consultant**: The environment consultant **M/s Grass Roots Research & Creation India (P) Ltd. Noida** along with the proponent made a presentation on the proposal before the Committee on 02.12.2023.

14. The SEAC recommended the following:

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

i) The green area provided is 10.7%. The project proponent shall increase the greenbelt area up to 20% of the total area.

ii) Structural stability certificate vetted by institute of repute.

iii) Traffic Study report to be vetted by institute of repute.

iv) NOC/Permission from the concerned authority for discharge of storm water into nearest NH drain.

v) Detailed drainage plan supported by drainage layout to be submitted.

vi) Permission from Water Resource department for usage of ground water.

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

i) Environmental settings of the project site.

ii) Extent of construction activity.

iii) Road connectivity to the project site.

iv) Drainage network at the site.

v) Discharge point for discharge of treated water and distance of the discharge point from the project site.

vi) Greenbelt area.

vii) Any other issues including local issues

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
a.	The green area provided is 10.7%. The project proponent shall increase the greenbelt area up to 20% of the total area.	We want to inform you that our landscape area is exactly 20% of plot area i.e., 1,060.27 m^2. Landscape plan is attached as **Annexure-I.**	Revised landscape area is exactly 20% of plot area i.e., 1,060.27 m^2
b.	Structural stability certificate vetted by institute of repute.	The structural stability has been obtained from IIT, Guwahati and a copy of certificate is attached as **Annexure- II.**	-
c.	Traffic Study report to be vetted by institute of repute.	Traffic Study report has been vetted by KIIT university. Copy of the same is attached as **Annexure- III.**	As per the traffic study report LOS is "C" with or without project.
d.	NOC/Permission from the concerned authority for discharge of storm water into nearest NH drain.	NOC/Permission from the concerned authority has been obtained for discharge of storm water into nearest NH drain. Copy of the same is attached as **Annexure-IV.**	NOC for disposal of storm water to natural drainage has been granted by BMC.
e.	Detailed drainage plan supported by drainage layout to be submitted.	Drainage layout plan showing the discharge point is attached as **Annexure-V.**	Drainage layout plan submitted.
f.	Permission from Water Resource department for usage of ground water.	Permission from Water Resource department for usage of ground water has been obtained from competent authority. Copy of the same is attached as **Annexure-VI.**	NOC from CGWA for 30.63KLD valid till 2028.
Reply to Site visit points			
1.	Environmental settings of the project site.	ESZ boundary of Chandaka Dampara WLS is at the distance of 7.5 km towards west direction and ESZ boundary of Nandankanan WLS is at the distance of 8.1 km towards NW direction from the project	----

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		site. DFO NOCs w.r.t. both the WLS are enclosed as **Annexure– VII.** There is no other ecologically sensitive location near the project site.	
2.	Extent of construction activity.	No construction activity has been initiated at project site.	----
3.	Road connectivity to the project site.	The connecting road is N. H. Sub Road towards front side of the project site. The Nearest Highway is SH-16 which is approx. 20 m in west direction from the project site, NH 316A/SH 60 is approx. 1.9 km (NE) away, NH-316 is approx. 3.7 km (S) away from the project site.	----
4.	Drainage network at the site.	Details provided above in point no. 4 and point no. 5.	----
5.	Discharge point for discharge of treated water and distance of the discharge point from the project site.	Details provided above in point no. 4 and point no. 5.	----
6.	Greenbelt area.	Details provided above in point no. 1.	----
7.	Any other issues including local issues	No other issues.	----

16. The proposed site was visited by the sub-committee of SEAC on **21.12.2023**. Following are the observations of the sub-committee.

a) The Project site is located at Pahala adjacent to Bhubaneswar Cuttack Road. PP was present and explained the layout.

b) There is no construction at present, it is empty land. It is for Hotel project.

c) The PP needs to obtained permission from the authority for discharge of excess treated water and storm water to the nearby drain along with drainage plan approved by the authority.

d) PP was advised to increase the RWH pit from one to two to take care of storm water during excess rain. Also, to plan the terrain to avoid flooding of water during rainy season.

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

i) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.

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

iii) The proponent shall use solar energy at least to the tune of 5%of total power requirement as proposed.

iv) The proponent shall obtain permission from concerned Fire Safety Authority.

v) Trees located within the project area shall be transplanted to alongside the boundary green development area.

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

vii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.

viii) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

ix) The proponent shall obtain permission from Water Resources department, Odisha for use of ground water for commercial use only.

MEMBER SECRETARY, SEAC

ANNEXURE -A

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR DECORATIVE STONE MINES & STONE QUARRY

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

Environmental Scientist, SEAC

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

Jnayak
Environmental Scientist, SEAC

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

Environmental Scientist, SEAC

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.

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ANNEXURE - B

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S ASSOTECH SUN GROWTH ABODE LLP "AVENUE 17TH, ASSOTECH WORLD" FOR DEVELOPMENT OF AFFORDABLE HOUSING UNITS (S+5) STORIED UNDER MODEL 1 OF ODISHA HOUSING FOR ALL POLICY FOR URBAN AREAS, 2022 TOWARDS COMPENSATORY FAR OVER PLOT NO. 493, 502, 518, 590, 591 & OTHERS OF OVER AN BUILT UP AREA 51,664.00 SQM MOUZA-JAYPUR, PS-BALIANTA, TEHSIL-BHUBANESWAR, DIST-KHORDHA OF SRI SASHANK SEKHAR ROUT - EC

PART A - SPECIFIC CONDITIONS:

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc. as per National Building Code including protection measures from 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 373.5 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total

Jayak
Environmental Scientist, SEAC

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 09 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.

JNayak
Environmental Scientist, SEAC

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

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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.

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AIR QUALITY AND NOISE

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

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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.
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    - Traffic calming measures
    - Proper design of entry and exit points.
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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.

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56. A buffer of minimum 10 m shall be maintained between the entry/exit gate and the road to avoid traffic congestion.
57. The Traffic Management Plan prepared by the proponent shall be duly validated and certified by the State Concerned Competent Authority and shall have also their consent before implementation.

ENVIRONMENT MANAGEMENT PLAN

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

OTHERS

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

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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

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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.

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5.5. HAZARDS AND RISK MANAGEMENT

5.5.1 Explosives

Blasting is done by means of explosives which are hazardous during of handling, storage and blasting.

5.5.1.1. Storage and Handling

The Applicant is advised to store the explosives as per the Indian Explosives Act, 1958 and the Explosive Rules, 1983. Necessary permissions should be obtained from the Joint Controller of Explosives to store and uses of explosives in the quarry in the magazine permit under Form - 23 or Agreement shall be made with holder of Form - 22 who can supply and fire explosives as per safety practices. However blasting in the mine or quarry shall be done as per the MMR, 1961 under the supervision of Mines Blaster certificate holder, appointed under Reg. 160 of Metalliferous Mines Regulations, 1961.

5.5.1.2. Blasting

Poorly designed shots can result in misfires early ignition and flying rock. Safety can be ensured by planning for round of shots to ensure face properly surveyed, holes correctly drilled, direction logged, the weight of explosion for good fragmentation. Blast design, charge and fire around of explosives should be carried out by a trained person.

5.5.1.3. Drilling

Slipping and Falling of labours from the edge of a bench during drilling is possible. Part of training should include instructions to face towards the open edge of the bench so any inadvertent backward step is away from the edge. Suitable portable rail fencing which can be erected between the drilling operations and the edge of the mine can be provided. Attachment of a safety line to the drilling rig and provide harness for the driller to wear can be done. Newer drill machines are provided with cabin which controls noise level within cabins. Driller operators should be protected with ear protection.

5.5.2. Loading

Possible risks during loading of mined rocks are falling of rock on the driver, plant toppling aver due to uneven ground, failure of hydraulic system, fires, fall while gaining access to operating cabin, electrocution in Draglines, failure of wire ropes in Dragline. In order to overcome these risks:

- Operator cabin should be of suitable strength to protect the driver in event of rock fall.
- Electrical supply to dragline should be properly installed with adequate earth continuity and earth leakage protection.
- Wire rope should be suitable for work undertaken and be examined periodically.
- Ensure that loaders are positioned sufficiently away from face edges

5.5.3. Transportation

Brake failure, lack of all-around visibility from driver position, vehicle movements particularly while reversing, rollover, Vibrations, Noise, Dust and improper / no signalling are some of the factors causing risk. This can be avoided by following measures:

- Visibility defects can be eliminated by the use of visibility aids such as closed circuit television and suitable mirrors.
- Edge protection is necessary to prevent inadvertent movement.
- Seatbelt to protect driver in event of vehicle rollover.
- Good maintenance and regular testing necessary to reduce possibility of brake failure.
- Avoid driving at the edge of roadway under construction
- Heavy earth moving equipment and vehicle drivers and those giving signals should be well trained.

5.5.4. Unstable face

Chances of Rock fall or slide exists. Regular examination of face must be done and remedial measures must be taken to make it safe if there is any doubt that a collapse could take place. Working should be advanced in a direction taken into account the geology such that face and quarry side remain stable.

5.5.5. General safety measures

Provisions of the Mines Act, Rules and Regulations orders made there under shall be complied with, so that the safety of the mine, machinery and persons will be ensured. Permission, relaxation or exemption wherever required for the safe and scientific mining of the deposit will be obtained from the Department of Mine Safety. Copy of Agreement for handling of Explosives under License Holder at Proposed site is given in additional document.

- Safety kits should be located in easily accessible place with major first aid materials in it.
- Entry of any unauthorized person into mine and plant areas shall be completely prohibited
- Arrangements for fire fighting in the mine's office complex and mining area

- Provision of all the safety appliances such as safety boot, helmets, goggles, ear plugs etc. shall be made available for the employees
- Mining will be undertaken in coexistence with the requirements of the Mining Plan which shall be updated from time to time
- Handling of explosives, charging and blasting shall be undertaken only by a competent person
- Adequate safety equipment shall be provided at the explosive magazine

All the mining equipment shall be maintained as per the guidelines of the manufacturer.

ANNEXURE - D

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S SJD- PRESIDENCY HOMES LLP FOR RESIDENTIAL PROJECT "ROYAL PRESIDENCY" OVER A BUILT-UP AREA 31862.910 M^2 AT PLOT NO. - 755,755/4117, RAGHUNATHPUR, P.S. NANDANKANAN, BHUBANESWAR, DISTRICT – KHURDA OF SRI BHABANI SHANKAR RATH - EC

PART A - SPECIFIC CONDITIONS:

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc. as per National Building Code including protection measures from 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 71 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

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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 07 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 115 KLD. The treated effluent from STP shall be reused for flushing, landscaping, floor & car washing.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
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59. Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
60. A First Aid Room shall be provided in the project both during construction and operations of the project.
61. The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.
62. As per the MoEF&CC, Govt. of India Office Memorandum F.No.22-65/2017-IA.III dated 1st May 2018, the project proponent is required to prepare and implement Corporate Environment Responsibility (CER) Plan. As per para 6(II) of the said O.M. appropriate funds shall be earmarked for the activities such as infrastructure creation for drinking water supply, sanitation, health, education, skill development, roads, cross drains, electrification including solar power, solid waste management facilities, scientific support and awareness to local farmers to increase yield of crop and fodder, rain water harvesting, soil moisture conservation works, avenue plantation, plantation in community areas etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire

Jayak
Environmental Scientist, SEAC

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

JNayak
Environmental Scientist, SEAC

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.

JNayak
Environmental Scientist, SEAC

ANNEXURE- E

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE OF M/S CHROME SAGAR FOR ENHANCEMENT IN PRODUCTION OF CHROME BENEFICIATION PLANT FROM THROUGHPUT CAPACITY OF 18,500 TPA TO 1,15,000 TPA AND MONOLITHIC UNIT FROM 24,000 TPA TO 72,000 TPA OVER AN AREA OF 7.6 ACRE LOCATED AT: PUBALA, SUKINDA, JAJPUR OF SRI RAJENDRA KUMAR THATOI – EC

I. Statutory compliance:

(i) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.

(ii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

(iii) The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report, (incase of the presence of schedule-I species in the study area)

(iv) The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board.

(v) The project proponent shall obtain the necessary permission from the Central Ground Water Authority and other concerned authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.

(vi) The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

II. Air quality monitoring and preservation

(i) The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.

(ii) The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.

(iii) Appropriate Air Pollution Control (APC) system shall be provided for all the dust

Jnayak
Environmental Scientist, SEAC

generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

(iv) The project proponent use leak proof trucks/dumpers carrying ore and other raw materials and cover them with tarpaulin.

(v) Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

(vi) Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.

(vii) The project proponent shall carry out conditioning of the ore with water to mitigate fugitive dust emission, without affecting flow of ore in the ore processing and handling areas.

(viii) Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of air pollutants such as haul road, loading and unloading point and transfer points. It shall be ensured that the Ambient Air Quality parameters conform to the National ambient air quality standards.

(ix) The transportation of mineral shall be carried out through the covered trucks. Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in beneficiation operations and in transportation of ore to the beneficiation plant. The vehicles carrying the mineral shall not be overloaded.

(x) Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.

(xi) Occupational health surveillance program of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed. Health records of the workers shall be maintained.

(xii) Regular Ambient Air Quality Monitoring shall be carried out. The monitoring stations will be set up in consultation with the SPCB. At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of $PM_{2.5}$, PM_{10}, SO_2 and NOx are anticipated in consultation with the State Pollution control Board. It will be ensured that at least one monitoring station is set up in up-wind & in down-wind direction along with those in other directions. The instruments used for ambient air quality monitoring shall be calibrated regularly.

(xiii) Data on ambient air quality ($PM_{2.5}$, PM_{10}, SO_2, NOx) shall be regularly submitted to the Ministry including its Regional office located at Bhubaneswar and the State Pollution Control Board/Central Pollution Control Board once in six months.

III. Water quality monitoring and preservation

(i) The project proponent shall monitor regularly ground water quality at least twice a year

Environmental Scientist, SEAC

(pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.

(ii) Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

(iii) Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.

(iv) The project proponent shall practice rainwater harvesting to maximum possible extent.

(v) The effluent from the ore beneficiation plant shall be treated in the tailing thickener and the tailings slurry shall be transported through a closed pipeline to the tailing pond.

(vi) The tailing pond shall be lined with appropriate impervious lining on all sides as well as the bottom to prevent any leachate going from the tailing pond into groundwater.

(vii) The garland drain shall be constructed around the tailing pond before the starting operation on the project.

(viii) The decanted water from the tailing pond shall be re-circulated and there should be zero discharge from the tailing pond.

(ix) Appropriate technology shall be used for maximum recovery of ore in order to reduce slurry discharge and to increase the life of the tailing pond.

(x) Garland drains with appropriate size, gradient and length shall be constructed to arrest silt and sediment flows from ore dumps and directly into the water bodies. The water so collected shall be utilized for watering the roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.

(xi) Effluents containing Cr+6 shall be treated to meet the prescribed standards before reuse. Effluent Treatment Plant should be provided for treatment of wastewater generated from the beneficiation plant.

(xii) Run off from the mineral and reject dumps and other surface run off should be analyzed for Cr+6 and in case its concentration is found higher than the permissible limit the water should be treated before reuse.

(xiii) Adhere to "Zero Liquid Discharge".

(xiv) Regular monitoring of water quality for surface water sources as well as ground water sources shall be carried out. The groundwater shall be monitored downstream of beneficiation plant as well as tailing pond upto groundwater table and record of monitoring data should be maintained and submitted on six monthly basis to the Ministry of Environment and Forests, its Regional Office, Bhubaneswar, the Central Ground Water Authority, the Regional Director Central Ground Water Board and the State Pollution Control Board.

(xv) Suitable rainwater harvesting measures on long term basis shall be planned and

Environmental Scientist, SEAC

implemented in consultation with the Regional Director, Central Ground Water Board.

(xvi) Appropriate mitigative measures shall be taken to prevent pollution of the nearby surface water source in consultation with the State Pollution control Board.

IV. Noise monitoring and prevention

(i) Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha as a part of six-monthly compliance report.

(ii) The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time

V. Energy Conservation measures

(i) Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;

(ii) Provide LED lights in their offices and residential areas.

VI. Waste management

(i) The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016

(ii) Kitchen waste shall be composted or converted to biogas for further use.(/o be decided on case to case basis depending on type and size of plant)

(iii) Separate impervious concrete pits for disposal of sludge shall be provided for the safe disposal of sludge generated from the beneficiation operation.

VII. Green Belt and EMP

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

(ii) The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

(iii) Plantation shall be raised all around the beneficiation plant site and the tailing pond around the plant, tailing disposal area, roads etc. by planting the native species in consultation with the local DFO/ Agriculture Department.

VIII. Human Health Issues

(i) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

(ii) The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per

Jnayak
Environmental Scientist, SEAC

the norms of Factory Act.

(iii) 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

a) 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.

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

IX. Corporate Environment Responsibility

(i) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-1 A.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.

(ii) The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha as a part of six-monthly report.

(iii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

(iv) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha along with the Six Monthly Compliance Report.

(v) Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out

(vi) All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Mineral Beneficiation plants shall be implemented.

X. Miscellaneous

(i) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by

Jnayak
Environmental Scientist, SEAC

prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.

(ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

(iii) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

(iv) The construction and demolition wastes to be generated from the proposed project shall be disposed of in accordance with the provision under "Construction & Demolition Wastes Management Rules 2016".

(v) The project proponent shall monitor the criteria pollutants level namely; PM_{10}, SO_2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

(vi) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

(vii) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

(viii) The project proponent shall inform the Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

(ix) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

(x) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during their presentation to the State Level Expert Appraisal Committee.

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

(xii) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

Environmental Scientist, SEAC

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

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

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

(xvi) The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

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

JNayak
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ANNEXURE - F

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S EVOS BUILDCON PVT. LTD. OF RESIDENTIAL PROJECT "EVOS AMANI" PLOT AREA17,342.50 SQUARE METER (4.285 ACRES), PROPOSED BUILT UP AREA – 92,774.928 SQM, DWELLING UNITS (414 NOS.), 4 BLOCKS/TOWERS AT CHANDAKA, TEHSIL - BHUBANESWAR, DISTRICT- KHURDA OF SRI KALINGA KESHARI RATH - EC

PART A - SPECIFIC CONDITIONS:

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc. as per National Building Code including protection measures from 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 237 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.

Jnayak
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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 02 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.

JNayak
Environmental Scientist, SEAC

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 360 KLD. The treated effluent from STP shall be reused for flushing, landscaping, floor & car washing.

25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.

26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.

27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.

28. No sewage or untreated effluent water would be discharged through storm water drains.

29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

32. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.

33. Energy conservation measures like installation of CFLs / LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.

Jnayak
Environmental Scientist, SEAC

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

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

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

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

AIR QUALITY AND NOISE

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

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

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

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

JNayak
Environmental Scientist, SEAC

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. 5672.00sqm (43.38% of total plot area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

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

TRANSPORT

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

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

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

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

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

ENVIRONMENT MANAGEMENT PLAN

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

OTHERS

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

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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

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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.

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ANNEXURE- G

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

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

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

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

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

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

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

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

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

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

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

19. During transportation of sand, all traffic safety measures shall be taken to avoid any kind of accidents.

20. Bio - toilet provision shall be made.

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

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

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

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

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

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

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

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

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

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

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

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

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

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Annexure - H

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	

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CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S. ARCHID BUILDERS PRIVATE LIMITED FOR COMMERCIAL CUM HOTEL BUILDING PROJECT. TOTAL LAND AREA IS 5,301.381 SQ.M (1.31 ACRES) AND THE TOTAL PROPOSED BUILT-UP AREA IS 30,390.0 SQ.M AT MOUZA- PAHAL, TEHSIL- BHUBANESWAR, DISTRICT- KHURDA OF SRI BANDAN MOHANTY - EC

PART A - SPECIFIC CONDITIONS:

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc. as per National Building Code including protection measures from 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 201.5 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring

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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 01 no. 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

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

ENERGY

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

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

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

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

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

AIR QUALITY AND NOISE

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

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

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

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

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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. 1,060.27 sqm (20% of total plot area) shall be provided for green area development.

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    - 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.

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

ENVIRONMENT MANAGEMENT PLAN

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

OTHERS

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

Environmental Scientist, SEAC

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

Environmental Scientist, SEAC

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.

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